

## DETAIL OF PROJECT COSTS

PLEASE COMPLETE THE TABLE BELOW FOR THE DIFFERENT CATEGORIES OF EQUIPMENT THAT WILL BE REQUIRED FOR COMPLETING THE PROJECT. EACH CATEGORY SHOULD BE BROKEN DOWN TO THE APPROPRIATE LEVEL FOR IDENTIFYING UNIT COST

| SERVICE AREA or COMMON NETWORK FACILITIES: |  | Eligibility (Yes/No) | Unit Cost       | No. of Units                              | Total Cost             | Support of Reasonableness            |
|--|--|----------------------|-----------------|---|------------------------|--------------------------------------|
| <b>NETWORK &amp; ACCESS EQUIPMENT</b>      |  |                      |                 |   | <b>\$7,344,207.80</b>  |                                      |
| <b>Switching</b>                           | LTE CORE   | Yes                  | \$1,257,500.00  | 1   | \$1,257,500.00         | Last-Mile                            |
|  |  |                      |                 |   | \$0.00                 |                                      |
|  |  |                      |                 |   | \$0.00                 |                                      |
| <b>Routing</b>                             |  |                      |                 |   | \$0.00                 |                                      |
|  |  |                      |                 |   | \$0.00                 |                                      |
|  |  |                      |                 |   | \$0.00                 |                                      |
| <b>Transport</b>                           | MICROWAVE RADIOS, ANTENNAS, CABLES, ACCESSORIES              | Yes                  | \$ 45,737.20    | 48 (38 NEW LINKS AND 10 LINKS TO UPGRADE) | \$2,195,385.60         | Middle-Mile                          |
|  | MW NETWORK MANAGEMENT SYSTEM                                 | Yes                  | \$ 47,500.00    | 1   | \$47,500.00            | Middle-Mile                          |
|  |  |                      |                 |   | \$0.00                 |                                      |
| <b>Access</b>                              | LTE BTS-ENODEB   | Yes                  | \$ 56,350.00    | 40  | \$2,254,000.00         | Last-Mile                            |
|  | Power Cabinet w/ battery                                     | Yes                  | \$ 4,800.00     | 40  | \$192,000.00           | Last-Mile                            |
|  | ANTENNAS (KATHREIN 84-212280)                                | Yes                  | \$ 956.25       | 120                                       | \$114,750.00           | Last-Mile                            |
|  | HELIAX CABLE (AVA7)  | Yes                  | \$ 10.50        | 23,331.60                                 | \$244,981.80           | Last-Mile                            |
| <b>Other</b>                               | Tower Hardware   | Yes                  |                 | 40  | \$0.00                 | Last-Mile                            |
|  | Switch/BTS Installation and integration                      | Yes                  | \$ 1,038,090.40 | 1   | \$1,038,090.40         | Last-Mile                            |
|  |  |                      |                 |   | 0                      |                                      |
| <b>OUTSIDE PLANT</b>                       |  |                      |                 |   | <b>\$26,276,841.39</b> |                                      |
| <b>Cables</b>                              | Fiber Construction / Installation / Testing                  | Yes                  | \$ 31,561.42    | 530 Miles                                 | \$16,727,552.60        | Middle-Mile (Construction Estimates) |
|  | Fiber Lateral Construction to sites / Installation / Testing | Yes                  | \$ 15,022.28    | 20 Miles                                  | \$300,445.60           | Middle-Mile (Construction Estimates) |
|  |  |                      |                 |   | \$0.00                 |                                      |
|  |  |                      |                 |   | \$0.00                 |                                      |
| <b>Conduits</b>                            | Fiber Backbone to Chapter House                              | Yes                  | \$1.00/FT       | 83,741                                    | \$83,741.00            | Middle-Mile (Manufacture Estimates)  |
|  | Fiber Backbone to Tower                                      | Yes                  | \$1.00/FT       | 11,194                                    | \$11,193.60            | Middle-Mile (Manufacture Estimates)  |
|  | Fiber to Substation  | Yes                  | \$1.00/FT       | 4,620                                     | \$4,620.00             | Middle-Mile (Manufacture Estimates)  |
| <b>Ducts</b>                               |  |                      |                 |   | \$0.00                 |                                      |
|  |  |                      |                 |   | \$0.00                 |                                      |
|  |  |                      |                 |   | \$0.00                 |                                      |
| <b>Poles</b>                               | NTUA Electric Poles  | Yes                  | \$ 287.53       | 6,956                                     | \$2,000,058.68         | Middle Mile (Using Existing Poles)   |
|  |  |                      |                 |   | \$0.00                 |                                      |
|  |  |                      |                 |   | \$0.00                 |                                      |
|  | Power Connection to Tower Sites                              | Yes                  | \$ 22,000.00    | 32  | \$704,000.00           | Middle-Mile                          |
|  | 120 ft Lite site   | Yes                  | \$ 61,858.44    | 3   | \$185,575.32           | Middle-Mile                          |

|                  |                          |     |                 |    |                |                              |
|------------------|--------------------------|-----|-----------------|----|----------------|------------------------------|
| <b>Towers</b>    | 180 ft SST               | Yes | \$ 146,413.14   | 25 | \$3,660,328.50 | Middle-Mile                  |
|                  | 45 ft Pole               | Yes | \$ 39,162.18    | 2  | \$78,324.36    | Middle-Mile                  |
|                  | 65 ft Lite Site          | Yes | \$ 34,266.67    | 1  | \$34,266.67    | Middle-Mile                  |
|                  | 60 ft SST                | Yes | \$ 75,654.21    | 1  | \$75,654.21    | Middle-Mile                  |
|                  | 20 ft extension          | Yes | \$ 13,350.74    | 1  | \$13,350.74    | Middle-Mile                  |
| <b>Repeaters</b> | Regeneration Equipment   | Yes | \$ 1,454,600.00 | 1  | \$1,454,600.00 | Middle-Mile (Hitachi )       |
|                  | DACS                     | Yes | \$ 32,822.73    | 5  | \$164,113.65   | Middle-Mile (Sycamore)       |
|                  | Routers                  | Yes | \$ 275.00       | 50 | \$13,750.00    | Middle-Mile (Hitachi )       |
|                  | Switches                 | Yes | \$ 4,936.76     | 35 | \$172,786.46   | Middle- Mile (Cisco / Ciena) |
|                  | Electronics Installation | Yes | \$ 252,480.00   | 1  | \$252,480.00   | Middle Mile (Config/Install) |
| <b>Other</b>     | Electrical               | Yes | \$ 3,500.00     | 40 | \$140,000.00   | Last-Mile                    |
|                  | Tower Work               | Yes | \$ 5,000.00     | 40 | \$200,000.00   | Last-Mile                    |
|                  |                          |     |                 |    | \$0.00         |                              |

| SERVICE AREA or COMMON NETWORK FACILITIES:            |                                       | Eligibility (Yes/No) | Unit Cost     | No. of Units | Total Cost            | Support of Reasonableness |
|---|---------------------------------------|----------------------|---------------|--------------|-----------------------|---------------------------|
| <b>BUILDINGS</b>                                      |                                       |                      |               |              | <b>\$2,104,000.00</b> |                           |
| New Construction                                      | Data Center                           | Yes                  | \$ 700,000.00 | 1            | \$700,000.00          | Middle-Mile               |
|   |                                       |                      |               |              | \$0.00                |                           |
| Pre-Fab Huts  | 12'X10' site shelters                 | Yes                  | \$ 30,000.00  | 36           | \$1,080,000.00        | Middle-Mile               |
|   |                                       |                      |               |              | \$0.00                |                           |
| Improvements & Renovation                             |                                       |                      |               |              | \$0.00                |                           |
|   |                                       |                      |               |              | \$0.00                |                           |
| Other   | Utilities                             | Yes                  | \$ 5,000.00   | 36           | \$180,000.00          | Middle-Mile               |
|   | Back up Generators                    | Yes                  | \$ 4,000.00   | 36           | \$144,000.00          | Middle- Mile              |
|   |                                       |                      |               |              | \$0.00                |                           |
| <b>CUSTOMER PREMISE EQUIPMENT</b>                     |                                       |                      |               |              | <b>\$1,883,000.00</b> |                           |
| Modems  | Interior LTE modem                    | Yes                  | \$165.00      | 1,500        | \$247,500.00          | Last-Mile                 |
|   | Exterior LTE modem                    | Yes                  | \$225.00      | 1,500        | \$337,500.00          | Last-Mile                 |
|   |                                       |                      |               |              | \$0.00                |                           |
| Set Top Boxes   |                                       |                      |               |              | \$0.00                |                           |
|   |                                       |                      |               |              | \$0.00                |                           |
| Inside Writing  |                                       |                      |               |              | \$0.00                |                           |
|   |                                       |                      |               |              | \$0.00                |                           |
| Other   | Dongle LTE device for laptop access   | Yes                  | \$ 94.00      | 4,500        | \$423,000.00          | Last-Mile                 |
|   | PC Netbooks                           | Yes                  | \$ 350.00     | 2,500        | \$875,000.00          | Last-Mile                 |
|   |                                       |                      |               |              | \$0.00                |                           |
| <b>BILLING SUPPORT AND OPERATIONS SUPPORT SYSTEMS</b> |                                       |                      |               |              | <b>\$250,000.00</b>   |                           |
| Billing Support Systems                               | Billing and customer support software |                      | \$ 250,000.00 | 1            | \$250,000.00          | Last-Mile                 |
|   |                                       |                      |               |              | \$0.00                |                           |
| Customer Care Systems                                 |                                       |                      |               |              | \$0.00                |                           |
|   |                                       |                      |               |              | \$0.00                |                           |
| Other Support   |                                       |                      |               |              | \$0.00                |                           |
|   |                                       |                      |               |              | \$0.00                |                           |

| SERVICE AREA or COMMON NETWORK FACILITIES: |  | Eligibility (Yes/No) | Unit Cost     | No. of Units | Total Cost            | Support of Reasonableness |
|--|--|----------------------|---------------|--------------|-----------------------|---------------------------|
| <b>OPERATING EQUIPMENT</b>                 |  |                      |               |              | <b>\$1,072,000.00</b> |                           |
| Vehicles                                   | Cable / Crew Trucks  | Yes                  | \$ 56,000.00  | 2            | \$112,000.00          | Middle-Mile               |
|  | Bucket Trucks  | Yes                  | \$ 175,000.00 | 4            | \$700,000.00          | Middle-Mile               |
|  | Splicing Trailors  | Yes                  | \$ 20,000.00  | 3            | \$60,000.00           | Middle-Mile               |
|  | Wire Pulling Trailors  | Yes                  | \$ 50,000.00  | 4            | \$200,000.00          | Middle-Mile               |
|  |  |                      |               |              | \$0.00                |                           |
| Office Equipment / Furniture               |  |                      |               |              | \$0.00                |                           |
|  |  |                      |               |              | \$0.00                |                           |
|  |  |                      |               |              | \$0.00                |                           |
| Other                                      |  |                      |               |              | \$0.00                |                           |
|  |  |                      |               |              | \$0.00                |                           |
|  |  |                      |               |              | \$0.00                |                           |
| <b>PROFESSIONAL SERVICES</b>               |  |                      |               |              | <b>\$6,036,788.34</b> |                           |
| Engineering Design                         | MW ENGINEERING   | Yes                  | \$ 5,677.08   | 48           | \$272,499.84          | Middle-Mile               |
|  | ROW Preperation  | Yes                  | \$ 650,000.00 | 1            | \$650,000.00          | Middle-Mile               |
|  | Fiber Optics Engineering   | Yes                  | \$ 1,663.45   | 550 Miles    | \$914,897.50          | Middle-Mile               |
|  | Site Drawings  | Yes                  | \$ 2,500.00   | 32           | \$80,000.00           | Middle-Mile               |
| Project Management                         | Filing Fees  | Yes                  | \$ 300.00     | 32           | \$9,600.00            | Middle-Mile               |
|  | Civil Work   | Yes                  | \$ 2,500.00   | 32           | \$80,000.00           | Middle-Mile               |
|  | Fiber Optics Project Management                                  | Yes                  | \$ 3,652.87   | 550 Miles    | \$1,925,870.50        | Middle-Mile               |
| Consulting                                 | Site Acq. And Env. Permit  | Yes                  | \$ 5,000.00   | 32           | \$160,000.00          | Middle-Mile               |
|  | Fiber Optics Engineering   | Yes                  | \$ 671,760.66 | 1            | \$671,760.66          | Middle-Mile               |
|  |  |                      |               |              | \$0.00                |                           |
| Other                                      | MW Interference Studies, Coordination and MW FIXED PTP Licensing | Yes                  | \$ 2,864.58   | 48           | \$137,499.84          | Middle-Mile               |
|  | Fiber Construction Crew Tools                                    | Yes                  | \$ 75,000.00  | 2            | \$150,000.00          | Middle-Mile               |
|  | Survey Equipment   | Yes                  | \$ 10,000.00  | 1            | \$10,000.00           | Middle-Mile               |
|  | Fiber Optic Test Equip.  | Yes                  | \$ 68,000.00  | 1            | \$68,000.00           | Middle-Mile               |
|  | Installation, Integration  | Yes                  | \$ 17,263.75  | 48           | \$828,660.00          | Middle-Mile               |
|  | Wireless Test Equipment  | Yes                  | \$ 78,000.00  | 1            | \$78,000.00           | Last-Mile                 |
| <b>TESTING</b>                             |  |                      |               |              | <b>\$0</b>            |                           |
| Network Elements                           |  |                      |               |              | 0                     |                           |
|  |  |                      |               |              | 0                     |                           |
| IT System Elements                         |  |                      |               |              | 0                     |                           |
|  |  |                      |               |              | 0                     |                           |
| User Devices                               |  |                      |               |              | 0                     |                           |
|  |  |                      |               |              | 0                     |                           |
| Test Generators                            |  |                      |               |              | 0                     |                           |
|  |  |                      |               |              | 0                     |                           |
| Lab Furnishings                            |  |                      |               |              | 0                     |                           |
|  |  |                      |               |              | 0                     |                           |
| Servers / Computers                        |  |                      |               |              | 0                     |                           |
|  |  |                      |               |              | 0                     |                           |

| SERVICE AREA or COMMON NETWORK FACILITIES: |  | Eligibility (Yes/No) | Unit Cost     | No. of Units | Total Cost             | Support of Reasonableness |
|--|--|----------------------|---------------|--------------|------------------------|---------------------------|
| <b>OTHER UPFRONT COSTS</b>                 |  |                      |               |              | <b>\$935,764.70</b>    |                           |
| <b>Site Preparation</b>                    | Network Operating Center and Data Center | Yes                  | \$ 210,000.00 | 1            | \$ 210,000.00          | Middle-Mile               |
|  | Tower Sites                              | Yes                  | \$ 16,235.29  | 33           | \$535,764.70           | Middle-Mile               |
|  |  |                      |               |              | 0                      |                           |
| <b>Other</b>                               | Application Prep cost                    |                      | \$100,000.00  | 1            | \$100,000.00           | Middle-Mile               |
|  | Shipping                                 | Yes                  | \$ 90,000.00  | 1            | \$90,000.00            | Last-Mile                 |
|  |  |                      |               |              | 0                      |                           |
| <b>PROJECT TOTAL:</b>                      |  |                      |               |              | <b>\$45,902,602.23</b> |                           |

**APPLICANT'S NAME**

**BUDGET INFORMATION - Construction Programs**

*NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.*

| <b>COST CLASSIFICATION</b>   | <b>a. Total Cost</b> | <b>b. Matching Funds<br/>(Cash)</b> | <b>c. Matching Funds<br/>(In-Kind)</b>            | <b>d. Federal Funding Request<br/>(Columns a-b-c)</b> |
|--|----------------------|-------------------------------------|---|---|
| 1. Administrative and legal expenses   | \$100,000            | \$0                                 | \$0   | \$100,000   |
| 2. Land, structures, rights-of-way, appraisals, etc.   | \$890,000            | \$250,000                           | \$0   | \$640,000   |
| 3. Relocation expenses and payments  | \$0                  | \$0                                 | \$0   | \$0   |
| 4. Architectural and engineering fees  | \$1,996,658          | \$800,000                           | \$0   | \$1,196,658   |
| 5. Other architectural and engineering fees  | \$9,600              | \$0                                 | \$0   | \$9,600   |
| 6. Project inspection fees   | \$0                  | \$0                                 | \$0   | \$0   |
| 7. Site work   | \$3,529,823          | \$0                                 | \$0   | \$3,529,823   |
| 8. Demolition and removal  | \$0                  | \$0                                 | \$0   | \$0   |
| 9. Construction  | \$36,736,021         | \$12,171,577                        | \$0   | \$24,564,444  |
| 10. Equipment  | \$2,253,000          | \$490,958                           | \$0   | \$1,762,042   |
| 11. Miscellaneous  | \$387,500            | \$0                                 | \$0   | \$387,500   |
| 12. SUBTOTAL (add #1 through #11)  | \$45,902,602         | \$13,712,535                        | \$0   | \$32,190,067  |
| 13. Contingencies  | \$0                  | \$0                                 | \$0   | \$0   |
| 14. SUBTOTAL (add #12 and #13)   | \$45,902,602         | \$13,712,535                        | \$0   | \$32,190,067  |
| 15. Project (program) income   | \$0                  | \$0                                 | \$0   | \$0   |
| <b>16. TOTAL PROJECT COSTS (subtract #15 from #14)</b>   | <b>45,902,602</b>    | <b>13,712,535</b>                   | <b>0</b>  | <b>32,190,067</b>                                     |
| <b>FEDERAL FUNDING</b>   |                      |                                     |   |   |
| 17. Federal assistance requested, calculated as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share. |                      |                                     | Enter eligible costs from line 16a Multiply X 30% | \$13,712,535  |





## **Budget Narrative**

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**Applicant Name: Mr. Monroe M Keedo**

**EasyGrants Number: 2023**

**Organization Type (from Question 1D on BTOP application): Indian Tribe**

**Proposed Period of Performance: 2.75 years**

**Total Project Costs: \$ 45,902,602**

**Total Federal Grant Request: \$ 32,190,067**

**Total Matching Funds (Cash): \$ 13,712,535**

**Total Matching Funds (In-Kind): \$ 0**

**Total Matching Funds (Cash + In-Kind): \$ 13,712,535**

**Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: % 30**

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### **1. Administrative and legal expenses**

**- List breakout of position(s), time commitment(s) such as hours or level-of-effort, and salary information/rates with a detailed explanation, and additional information as needed.**

**- Provide description, calculation, and basis of evaluation for Cash Matching Funds.**

**- Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**

***Administrative and Legal Expenses:*** The total Administrative and Legal costs are \$100,000: \$100,000 from federal sources and \$0 as Matching Funds from NTUA.

This is for the grant Application and Preparation cost identified on the Detailed Project Costs Tab, "Other Upfront Costs" section.





## **2. Land, structure, rights-of-way, appraisals, etc.**

- **Provide description of estimated costs, proposed activities, and additional information as needed.**
- **Provide description, calculation, and basis of evaluation for Cash Matching Funds.**
- **Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**

*Land, structure, rights-of-way, appraisals, etc.:* The total Land, structures, rights-of-way, appraisals, etc. costs are \$890,000: \$640,000 from federal sources and \$250,000 as Matching Funds (cash) from NTUA.

These costs are needed to address the right-of-way process for constructing the 550 miles of fiber optic cable through the Navajo Nation property and for the site drawings and environmental permits needed for the construction of 33 tower sites. They are identified in the Professional Services section of the Detailed Project Costs Tab, under the Engineering Design and Consulting categories.

## **3. Relocation expenses and payment**

- **Provide explanation for the relocation, description of the person involved in the relocation, method used to calculate costs, and additional information as needed.**
- **Provide description, calculation, and basis of evaluation for Cash Matching Funds.**
- **Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**

None

## **4. Architectural and engineering fees**

- **Provide description of estimated fees, explanation of proposed services, and additional information as needed.**
- **Provide description, calculation, and basis of evaluation for Cash Matching Funds.**
- **Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**



**Engineering:** The total engineering costs are \$1,996,657.84: \$1,196,658.84 from federal sources and \$800,000 as Matching Funds (cash) from NTUA.

Engineering costs include the fiber optics backbone engineering, microwave engineering, microwave (MW) interference studies, and coordination and MW fixed point-to-point licensing. It also includes vendor selection, contract award support, and support with project implementation and commissioning.

## **5. Other architectural and engineering fees**

- **Provide description of estimated fees, explanation of proposed services, and additional information as needed.**
- **Provide description, calculation, and basis of evaluation for Cash Matching Funds.**
- **Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**

**Other Engineering:** The total other-engineering costs are \$9,600: \$9,600 from federal sources and \$0 as Matching Funds (cash) from NTUA.

Other-engineering costs consist of \$9,600 for filing fees related to the construction and notification of the structures (only for the new structures which are 32 at projected \$300 per structure).

## **6. Project inspection fees**

- **Provide description of estimated fees, explanation of proposed services, and additional information as needed.**
- **Provide description, calculation, and basis of evaluation for Cash Matching Funds.**
- **Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**

None



## **7. Site work**

- **Provide description of estimated fees, explanation of proposed services, and additional information as needed.**
- **Provide description, calculation, and basis of evaluation for Cash Matching Funds.**
- **Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**

**Site Work:** The site work costs are \$3,529,823.38: \$3,529,823.38 from federal sources and \$0 as Matching Funds (cash) from NTUA.

Site work costs include civil work and supplying utilities for the network operating center (NOC), the tower sites, and the telecom huts. It also includes any needed pole-replacements and pole make-ready prior to starting the 550 miles of fiber construction.

## **8. Demolition and removal**

- **Provide description of estimated fees, explanation of proposed services, and additional information as needed.**
- **Provide description, calculation, and basis of evaluation for Cash Matching Funds.**
- **Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**

None

## **9. Construction**

- **Provide description of estimated fees, explanation of proposed services, state whether the work is being completed by the applicant or an outside contractor, and additional information as needed.**
- **Provide description, calculation, and basis of evaluation for Cash Matching Funds.**
- **Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**



**Construction:** The construction costs are \$36,736,021.01: \$24,564,444.35 from federal sources and \$12,171,576.66 as Matching Funds (cash) from NTUA.

Construction costs include:

- Fiber optic construction for 550 miles.
- Fiber optic transport and switch equipment procurement and installation.
- Tower procurement and construction for 33 towers.
- Tower microwave (MW) switching and transport equipment procurement and installation.
- Tower access equipment procurement and installation.
- Project Management for the above construction, procurement and installation.

**Construction Project Management:** The following narrative provides a breakout of the \$1,925,871 Project Management (PM) component listed in the last bullet item above.

**Personnel:** Personnel costs include the following roles:

- o Project Manager
- o Construction Engineer
- o Accountant
- o Office Assistant

The estimated PM time and rate per hour and fringe benefits are shown below.

| Project Management Positions | Person Yrs | Quantity / Year | Unit Cost | Units | Total      | Total by Section |
|------------------------------|------------|-----------------|-----------|-------|------------|------------------|
| Project Manager (PM)         | 3          | 2000            | \$ 51.00  | Hours | \$ 306,000 |                  |
| Construction Engineer (CE)   | 7.02       | 2000            | \$ 37.00  | Hours | \$ 519,480 |                  |
| Accountant (Local)           | 3.00       | 2000            | \$ 35.00  | Hours | \$ 210,000 |                  |
| Clerical Support (Local)     | 3.00       | 2000            | \$ 20.00  | Hours | \$ 120,000 |                  |
| Total Direct Labor           | 16.02      |                 |           |       |            | \$ 1,155,480     |

**Fringe Benefits:** Fringe benefits are estimated to be 25% of the total personnel costs.

|                       |  |     |  |  |            |            |
|-----------------------|--|-----|--|--|------------|------------|
| Fringe Benefits       |  | 25% |  |  | \$ 288,870 |            |
| Fringe Benefits Total |  |     |  |  |            | \$ 288,870 |

NTUA plans to use contracted personnel and experienced NTUA Staff dedicated to this project through completion. NTUA staff will be charged to the project on an hourly basis and will use Federal Funding and NTUA Matching (cash) for reimbursement.



The total personnel and fringe benefit costs are \$1,444,350: \$1,227,698 from federal sources and \$216,652 as Matching Funds (Cash) contribution from NTUA.

**Travel:** Travel costs are comprised of meals, airfare, car rental, and hotel accommodation, as well as temporary housing and mileage for PM personnel living on site during the construction phase of the project. Other miscellaneous travel costs are also be included in this category, as needed. Mileage costs and per-diem food costs are based on the estimated federal rate over the three year period of the construction; airfare costs are based on an average of \$516 per round-trip flight; hotel costs are based on \$123 per night; and rental car and associated fuel costs are based on an average of \$90 per day. Housing costs for Project Management personnel living onsite away from their permanent residence during the course of the project include, housing, utilities, and any other housing related costs, but do not include any meal allowance unless personnel are away from both their temporary housing and their permanent housing on PM related business.

The total travel costs are projected to be \$451,631: \$128,908 from federal sources and \$322,723 from the NTUA.

**Supplies:** None

**Office Mobilization:** Office Mobilization includes mobilizing office space near the NTUA complex and paying ongoing office expenses. The total office mobilization costs are projected to be \$29,890: \$0 from federal sources and \$29,890 from the NTUA.

**Project Management Costs Summary and Funding distribution:**

| Project Management Costs               | Total by Section      | Federal Funding       | Cash Match          |
|--|-----------------------|-----------------------|---------------------|
| Total Direct Labor and Fringe Benefits | \$1,444,350.00        | 1,227,698.00          | \$216,652.00        |
| Travel Expenses                        | \$451,631.00          | \$128,908.00          | \$322,723.00        |
| Supplies                               | \$0                   | \$0                   | \$0                 |
| Office Mobilization                    | \$29,890.00           | \$0                   | \$29,890.00         |
| <b>Total</b>                           | <b>\$1,925,871.00</b> | <b>\$1,356,606.00</b> | <b>\$569,265.00</b> |

**10. Equipment**

- Provide list of equipment with description, number of units, unit cost, state whether it is being purchased or leased, and additional information as needed.

- Provide description, calculation, and basis of evaluation for Cash Matching Funds.



**- Provide description, calculation, and basis of evaluation for In-Kind Matching Funds.**

**Equipment:** The equipment costs are \$2,253,000: \$1,678,833.66 from federal sources and \$574,166.34 as Matching Funds (cash) from NTUA.

| Infra Budget Package file:<br>"Detailed of Project Costs" Tab<br>Cost Category | Description                   | Unit Cost    | Quantity              | Extended Cost |
|--|-------------------------------|--------------|-----------------------|---------------|
| Operating Equipment - Vehicles   | Cable / Crew Trucks           | \$ 56,000.00 | 2                     | \$112,000.00  |
|  | Bucket Trucks                 | \$175,000.00 | 4                     | \$700,000.00  |
|  | Splicing Trailors             | \$ 20,000.00 | 3                     | \$60,000.00   |
|  | Wire Pulling Trailors         | \$ 50,000.00 | 4                     | \$200,000.00  |
| Professional Services - Other  | Fiber Construction Crew Tools | \$ 75,000.00 | 2                     | \$150,000.00  |
|  | Survey Equipment              | \$ 10,000.00 | 1                     | \$10,000.00   |
|  | Fiber Optic Test Equip.       | \$ 68,000.00 | 1                     | \$68,000.00   |
|  | Wireless Test Equipment       | \$ 78,000.00 | 1                     | \$78,000.00   |
| Customer Premise Equipment - Other   | PC Netbooks                   | \$ 350.00    | 2,500                 | \$875,000.00  |
| <b>Total</b>   |                               |              | <b>\$2,253,000.00</b> |               |

Equipment costs consist of operating equipment for fiber optic construction and customer premise equipment for the broadband system. The major operating equipment includes the cable /crew trucks, bucket trucks, splicing trailers, and wire-pulling trailers needed for fiber optic construction. Fiber construction crew tools, test equipment, and additional survey / GIS equipment are also included. See above table for quantities and cost breakouts.

The customer premise equipment includes 2,500 PC-Netbooks. Netbooks, known as mini notebooks or ultra-portables, are small, light and inexpensive laptop computers suited for general computing and accessing web-based applications; Netbooks will be provided as customer premises equipment (CPE) as they will have integrated modems to access the LTE network for a segment of market that cannot afford complete PC solutions. The Netbooks will not be resold to customers but rather allocated to low-income qualified households under current Lifeline rules currently utilized by USAC for subsidized voice services.

**11. Miscellaneous**

**- Provide additional information as needed.**

**- Provide description, calculation, and basis of evaluation of Cash Matching Funds.**



**- Provide description, calculation, and basis of evaluation of In-Kind Matching Funds.**

**Miscellaneous:** The total miscellaneous costs are \$387,500: \$387,500 from federal sources and \$0 as Matching Funds (cash) from NTUA.

Miscellaneous costs consist of \$90,000 for LTE equipment shipping, \$250,000 for customer billing and support software, and \$47,500 for MW network management system software.

Customer billing software is intended to support residential and enterprise broadband customers; installed and managed from the data center and NOC to be located within Ft Defiance. OSS billing system will deliver an integrated order management, integrated provisioning, billing and accounting, CRM, customer and agent portals.

**Addendum**

**- If indirect costs (i.e., indirect, overhead, general and administrative, facilities and administration, etc.) and/or fringe benefits are included in the budget, please provide a copy of your existing Negotiated Indirect Cost Recovery Agreement (NICRA), if available. If the NICRA is applied accordingly in the budget, there is no need to justify the costs. If a NICRA is not available or is not consistent with the rates/calculations in the budget, please provide an explanation of how the amounts were calculated. Please clearly list the manner in which indirect costs are calculated in the budget.**