

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility 69444 Service: DTV Call WUNM-TV Channel: 28 (UHF)

ID: Sign:

ID: File

0000027173

Number:

FRN: **0001910066** Date **05/08**

Submitted: /2019

Applicant Information

Applicant Name, Type, and Contact Information

| Applicant | Address | Phone | Email | Applicant Type |
|--|---|-----------------------------|-----------------------|----------------------|
| University of North Carolina Doing Business As: University of North Carolina | PO Box 14900 Research Triangle Park, NC 27709 United States | +1 (919) 549- 7000 | fcc_notice@unctv. org | Government Entity |

Reimbursement Contact Name and Information Reimbursement Contact Information

| Applicant | Address | Phone | Email |
|----------------|---------|-------|-------|
| [Confidential] | | | |

Preparer Contact Information

Preparer Contact Name and Information

| Applicant | Address | Phone | Email |
|---|---|----------------------|----------------------|
| Donald Smith Director of New Technologies Compliance & Planning University of North Carolina Center for Public Television | Donald Smith 10 T.W. Alexander Drive Research Triangle Park, NC 27709 United States | +1 (919) 549-7025 | dsmith@unctv. org |

Broadcaster Information and Transition Plan

| Question | Response |
|--|--|
| Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information. | No |
| Briefly describe transition plan | The transition plan is to construct a temporary interim facility at the existing site. The interim facility would be used when operation on the new channel begins. After that the necessary changes would be made to the primary transmission system. |

Transmitters

| rs | Section | Question | Response |
|----|------------------------------|---|----------|
| | Transmitter Related Expenses | Do you have transmitter related expenses? | Yes |

Auxiliary Transmitter

Add Transmitter Information

| Section | Question | Response |
|----------------------------------|--|-----------------------|
| Existing Transmitter Description | Type of change | Purchase New |
| | Use | Auxiliary (Backup) |
| | Description of Use | Aux |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this transmitter currently shared with another station? | No |
| | Is this transmitter currently in operating condition? | Yes |
| Existing Transmitter | Manufacturer | |
| Manufacturer and Type | Model | LU2500ATD |
| | Year | 2008 |
| | Туре | Solid State |
| | Solid State Cooling | Air Cooled |
| | Solid State Power Capacity | 2.5 kW |

Auxiliary Transmitter

New Transmitter Costs

| Section | Question | Response |
|-----------------|---|---|
| New Transmitter | Use | Auxiliary (Backup) |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | No |
| | Manufacturer | |
| | Model | ULXTE-10 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 6 kW |
| | Justification for New Transmitter | The transmitter support company has indicated that they may be able to provide rechannelization proposals for some models. At this time they have failed to provide a proposal. See attachment for further details. |

Auxiliary Transmitter

Other Transmitter Costs

| Section | Question | Response |
|--------------------|---------------------------------------|----------|
| Electrical Service | Service Entrance (3 phases 800A 208V) | No |
| | Switchgear (industrial 800 amp) | No |
| | Transformer (480V) | Yes |
| | | ' |

| | Power | 150 kVA |
|---|--|--|
| | Rigid Conduit and Wiring | Yes |
| | Size | 2 inches |
| | Length | 100.0 feet |
| | Other Electrical Service | Yes |
| | Description | Electrical feed disconnects and other items necessary to meet electrical code requirements |
| HVAC Service | Does the replacement transmitter require HVAC Service? | No |
| | Туре | N/A |
| | Size | N/A |
| | Other Size | N/A |
| Transmitter Building Addition/Modification or Leasehold Improvement | Does the Transmitter Building require an addition, modification, other leashold improvement? | No |
| | Size | N/A |
| Channel 14 Costs | Is an RF Consulting Engineer needed? | N/A |
| | Is a channel 14 Mask Filer needed? | N/A |
| | Is additional field engineering time needed? | N/A |
| | Number of Days | N/A |
| | | |

Auxiliary Transmitter **Other Transmitter Cost Not Listed**

Transmitter Information not provided.

Primary Transmitter

Existing Transmitter Information

| Section | Question | Response |
|----------------------------------|--|--------------------------|
| Existing Transmitter Description | Type of change | Purchase New |
| | Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this transmitter currently shared with another station? | No |
| | Is this transmitter currently in operating condition? | Yes |
| Existing Transmitter | Manufacturer | |
| Manufacturer and Type | Model | HP50DDW |
| | Year | 2005 |
| | Туре | Inductive Output Tube |
| | IOT Power Type | Two |
| | Power Capacity | 20 kW |

Primary Transmitter

New Transmitter Costs

| Section | Question | Response |
|-----------------|---|---|
| New Transmitter | Use | Primary (Main) |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | Yes |
| | Manufacturer | |
| | Model | ULXTE-50 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 29.6 kW |
| | Justification for New Transmitter | The transmitter support company has indicated the transmitter is obsolete and will not be able to provide rechannelization services for the transmitter. See attached letter. |

Primary Transmitter

Other Transmitter Costs

| Section | Question | Response |
|--------------------|---------------------------------------|----------|
| Electrical Service | Service Entrance (3 phases 800A 208V) | No |
| | Switchgear (industrial 800 amp) | Yes |
| | Transformer (480V) | Yes |
| | Power | 150 kVA |
| | Rigid Conduit and Wiring | Yes |

| | Size | 2 inches |
|---|--|--|
| | Length | 100.0 feet |
| | Other Electrical Service | Yes |
| | Description | Electrical feed disconnects and other items necessary to meet electrical code requirements |
| HVAC Service | Does the replacement transmitter require HVAC Service? | No |
| | Туре | N/A |
| | Size | N/A |
| | Other Size | N/A |
| Transmitter Building Addition/Modification or Leasehold Improvement | Does the Transmitter Building require an addition, modification, other leashold improvement? | No |
| | Size | N/A |
| Channel 14 Costs | Is an RF Consulting Engineer needed? | N/A |
| | Is a channel 14 Mask Filer needed? | N/A |
| | Is additional field engineering time needed? | N/A |
| | Number of Days | N/A |

Other Transmitter Cost Not Listed

Primary
Transmitter Information not provided.

Antennas

| Section | Question | Response |
|--------------------------|---------------------------------------|----------|
| Antenna Related Expenses | Do you have antenna related expenses? | Yes |

Existing Antenna Information

| Section | Question | Response |
|------------------------------|--|--------------------|
| Existing Antenna Description | Type of change | Purchase New |
| | Antenna Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is the existing antenna shared with another station or stations? | No |
| | Is the existing antenna directional? | Yes |
| | Is antenna in operating condition? | Yes |
| | Is antenna located on or in close proximity to an antenna farm? | No |
| Existing Antenna | Class | Full Power |
| Manufacturer and Type | Mounting | Side Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Elliptical |
| | Туре | Slotted Coaxial |
| | Number of Stations Supported | N/A |
| | Number of Panels | N/A |
| | Design power capacity in use | N/A |
| | Lower Limit | N/A |
| | Upper Limit | N/A |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 100.0 kW |

| Manufacturer | |
|--------------|-------------------------|
| Model | TFU-14DSC /VP-R P230 |
| Year | 2009 |

New Antenna Costs

| Section | Question | Response |
|-------------------------|--|--------------------|
| New Antenna Description | Use | Primary (Main) |
| | Description of Use | N/A |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | Yes |
| | Ownership | Owned |
| | Owner | N/A |
| | Is antenna shared? | No |
| | Is antenna directional? | Yes |
| | Will antenna be located on or in close proximity to an antenna farm? | No |
| New Antenna | Class | Full Power |
| Manufacturer and Types | Mounting | Side Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Elliptical |
| | Туре | Slotted Coaxial |
| | Number of Stations Supported | N/A |
| | Number of Panels/Bays | N/A |
| | Lower Limit | N/A |
| | Upper Limit | N/A |
| | Design power capacity in use | N/A |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 700.0 kW |
| | Manufacturer | |
| | | |

| Model | TFU-28DSC /VP-R P230 |
|-------------------------------|--|
| Year | 2019 |
| Justification for New Antenna | The antenna is a single channel slotted pylon style antenna. It cannot operate on a channel other than what it was designed, channel 19. The only viable option is to replace the antenna. |

Other Antenna Costs

| Response |
|-------------------|
| No |
| |
| N/A |
| N/A |
| N/A |
| N/A |
| yes Yes |
| Single Channel |
| |

| | Feed Line Size | 6 1/8 inches inches |
|--------------------------|---|---------------------|
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for a high power antenna? | Yes |
| Pattern Scatter Analysis | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | Yes |
| Sweep Test | Do you require the sweep testing of transmission line and antenna? | Yes |

Other Antenna Cost Not Listed

Information not provided.

Interim Antenna

New Antenna Costs

| Section | Question | Response |
|-------------------------|--|--------------------|
| New Antenna Description | Use | Interim |
| | Description of Use | N/A |
| | Change Type | Purchase New |
| | Ownership | Owned |
| | Owner | N/A |
| | Is antenna shared? | No |
| | Is antenna directional? | No |
| | Will antenna be located on or in close proximity to an antenna farm? | No |
| New Antenna | Class | Full Power |
| Manufacturer and Type | Mounting | Side Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Horizontal |
| | Туре | Broadband Panel |
| | Number of Stations Supported | 1 |
| | Number of Panels/Bays | 8 |
| | Lower Limit | 470.00 MHz |
| | Upper Limit | 698.00 MHz |
| | Design power capacity in use | 15.0 % |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 60.0 kW |
| | Manufacturer | |
| | Model | TUA-O4-2 /8-S |
| | Year | 2001 |

| Justification for New Antenna | This is an emergency antenna owned by the station. It is on the ground in a |
|-------------------------------|---|
| | ground in a |
| | protected storage |
| | area. |

Interim Antenna

Other Antenna Costs

| Section | Question | Response |
|--------------------------|---|----------|
| Elbow Complex | Do you require the separate purchase of the Elbow Complex? | No |
| | Broadband or Single Channel? | N/A |
| | Feed Line Size | N/A |
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for an antenna? | No |
| Pattern Scatter Analysis | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | No |
| Sweep Test | Do you require the sweep testing of transmission line and antenna? | Yes |

Interim Antenna

Other Antenna Cost Not Listed

Information not provided.

| Transmission Seffien | Question | Response |
|---------------------------------------|---|----------|
| Transmission Line Related Expenses | Do you have transmission line related expenses? | Yes |

Interim Transm

New Transmission Line

| nsmission Line New Transmission Line Costs | Question | Response | |
|--|----------|-------------------------|---------------------|
| | | Use | Interim |
| | | Description of Use | N/A |
| | | Change Type | Purchase New |
| | | Туре | Flexible Air |
| | | Diameter | 4 inches |
| | | Segment Length | N/A |
| | | Other Segment Length | |
| | | Number of parallel runs | 1 |
| | | Length | 600 feet per run |

| Justification for New Transmission Line | A 2nd antenna installation is required in order to install the new antenna and keep the station on the air. The station owns a broadband panel antenna that can be used but needs transmission line to feed it. |
|---|---|
| | |

Other Transmission Line Expenses Not Listed

Interim Transmission

| n _{Na} ine | Description |
|---------------------------|---|
| Transmission line hangers | Hanger kits for securing transmission line to tower |
| Grounding kits | Ground Kits |
| Connectors | Connectors for ends of transmission line |
| Hoisting grip kits | Kit to lift line and attach to the tower |

Tower Equipment And Rigging Costs

| Section | Question | Response |
|---|---|----------|
| Tower Equipment or Rigging Costs Changes | Do you have tower equipment or rigging costs changes? | Yes |

Primary Tower

Existing Tower

| Section | Question | Response |
|---------------------------------|---|--|
| Existing Tower | Type of change | Move Equipment |
| Description | Tower Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Leased |
| | Is this tower consider Complex? | No |
| | Is this tower currently shared with any other stations? | Yes |
| | One or more FM, AM or TV radio broadcaster(s) | Yes |
| | Others Types of Users | No |
| | Is tower documented for structural analysis? | Unknown |
| | Is tower compliant with Rev G? | Unknown |
| Existing Tower | Do you have a tower registration number? | Yes |
| Structure Registration | ASR Number | 1011271 |
| Coordinates (NAD83 | Latitude (NAD83) | 35° 06' 16.0" N- |
| (North American Datum of 1983)) | Longitude (NAD83) | 077° 20' 11.0" W- |
| | Overall Structure Height | 1988.82 feet |
| | Support Structure Height | 1878.59 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 45.93 feet |
| | Structure Type | TOWER - Free Standing or Guyed Structure |

| Tower Owner | EASTERN NORTH CAROLINA BROADCASTING CORPORATION |
|------------------|---|
| Date Constructed | 01/01/1981 |

FM, AM or TV radio broadcasters. Facility ID's, Call Signs and Services of other broadcast stations with whom the tower is shared

| Facility ID | Call Sign | Service |
|-------------|-----------|---------|
| 36950 | WRNS-FM | FM |
| 35582 | WYDO | DTV |
| 18334 | WCTI-TV | DTV |

Primary Tower

Tower Rigging Costs

| Section | Question | Response |
|---------------------------------|-----------------------------------|----------|
| Tower Rigging Costs | Complex Tower | N/A |
| Helicopter Services Required | Are helicopter services required? | No |

Primary Tower

Other Tower Expenses Not Listed

Information not provided.

Outside Professional

| Section | Question | Response |
|--|--|--|
| Services Costs Outside Project Management Services | Do you require outside project management services? | Yes |
| | Number of Hours | 120 |
| | Explanation | Because the transmission site is owned by the State of North Carolina, it is subject to various state construction project rules. One rule is the hiring of a designer to create submittals for project review and approval by the state |
| Outside RF consulting Engineering Services | Perform engineering study for new channel assignment and antenna development | Yes |
| | Prepare engineering section of Form FCC Construction Permit Application | Yes |
| | For Auxiliary Facility | No |
| | For Main Facility | Yes |
| | Prepare engineering section of Form FCC License to Cover Application | Yes |
| | For Auxiliary Facility | No |
| | For Main Facility | Yes |
| | Prepare request for Special Temporary Authority | Yes |
| | Quantity | 1 |

| | Do you have Distributed Transmission System engineering services? | N/A |
|---------------------------------------|--|-----|
| | Critical Facility | N/A |
| | Terrain-Shielded Facility | N/A |
| Attorney and Other Outside Consulting | Prepare and file Form FCC Construction Permit Application | Yes |
| Services | For Auxiliary Facility | No |
| | For Main Facility | Yes |
| | Prepare and file Form FCC License to Cover Application | Yes |
| | For Auxiliary Facility | No |
| | For Main Facility | Yes |
| | Prepare request for Special Temporary Authority | Yes |
| | Quantity | 1 |
| | NEPA Section 106 environmental review | No |
| | Environmental Assessment | No |
| | ASR Modification | No |
| | FAA Consultation (including preparation of FAA Form 7460) | No |
| | Negotiation of Lease and other Matter for Shared Locations | Yes |
| | Prepare or Review FCC Form 399 for Reimbursement | Yes |
| | Address transition timing and coordination issues w/ other stations and wireless providers | Yes |
| RF Field Engineering Services | Comprehensive coverage verification via field study | No |
| | RF exposure measurements | No |
| | Additional Field Engineering Service | No |
| | Number of Days | N/A |
| | | |

| Justification | N/A |
|---------------|-----|
|---------------|-----|

Outside Professional

Other Professional Services Expenses Not Listed

| Services Costs | Description |
|---------------------------|--|
| Additional Legal Expenses | Legal expenses for non-catalog advice and review, including transition status reports and other miscellaneous legal needs. |

Other Expenses

| Section | Question | Response |
|---------------------------------|--|----------|
| AM Pattern Disturbance | Is an Impact Study needed? | No |
| | Is Remediation needed? | No |
| Facility Expenses | Name | N/A |
| | Other Distributed Transmission System Expenses Not listed | N/A |
| | Name | N/A |
| | Is Notification of a Medical Facility required as a result of DTV broadcasting? | Yes |
| Permit and Filing Costs | Local Zoning | No |
| | Non-zoning permits | No |
| | BLM or NFS Coordination | No |
| | FCC Construction Permit Minor Change | No |
| | FCC License to Cover Application | No |
| | FCC Special Temporary Authority Application | No |
| Other Miscellaneous Expenses | Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)? | Yes |
| | Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs? | Yes |
| | Does this relocation require Equipment Storage? | No |
| | Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change? | Yes |
| | Does this relocation require MVPD Notification of a Channel Change? | Yes |

Other Expenses Not Listed

Expenses Information not provided.

Cost Information

Transmitters

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|--|--------------------------------|-------------------|---|--------------|------------------------------|
| Primary Transmitter ULXTE-50 | \$1,028,350.00 | \$430,815.98 | | \$191,333.99 | |
| Other Electrical Service: Electrical feed disconnects and other items necessary to meet electrical code requirements | \$15,000.00 | \$15,000.00 | Estimate for non-categorized items necessary to meet electrical code requirements | N/A | N/A |
| 2" Rigid Conduit and Wiring (Cost per foot) | \$2,600.00 | \$2,500.00 | N/A | N/A | N/A |

| Auxiliary Transmitter | \$326,550.00 | \$201,863.16 | | \$87,478.58 | |
|--|--------------|--------------|--|--------------|-----|
| Transformer 3 phase /480v - 150 KVA | \$25,550.00 | \$24,300.00 | N/A | \$1,958.60 | N/A |
| Switchgear - industrial 800 amp | \$38,200.00 | \$36,300.00 | N/A | N/A | N/A |
| | | | understood that the station is responsible for the upgrade portion of the purchase price. | | |
| Liquid Cooled Solid State Transmitter 21 - 31 kW | \$947,000.00 | \$352,715.98 | The estimated cost is for the approved GatesAir ULXTE-30 transmitter. The transmitter purchase has been upgraded to a ULXTE- 50. It is | \$189,375.39 | N/A |

| Total for all systems | \$2,064,813.00 | \$1,325,768.14 | N/A | \$469,394.92 | N/A |
|--|----------------|----------------|---|--------------|-----|
| Sub-total | \$1,354,900.00 | \$632,679.14 | N/A | \$278,812.57 | N/A |
| UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW | \$273,500.00 | \$150,163.16 | See antenna narrative with quotes | \$85,519.98 | N/A |
| Transformer 3 phase /480v - 150 KVA | \$25,550.00 | \$24,300.00 | N/A | \$1,958.60 | N/A |
| 2" Rigid Conduit and Wiring (Cost per foot) | \$2,600.00 | \$2,500.00 | N/A | N/A | N/A |
| Other Electrical Service: Electrical feed disconnects and other items necessary to meet electrical code requirements | \$24,900.00 | \$24,900.00 | Estimate for non-categorized items necessary to meet electrical code requirements | N/A | N/A |

Components

| Actual Information Description | File Name |
|--|---------------------------|
| Other Electrical Service: Electrical feed disconnects and other items necessary to meet electrical code requirements | Information not provided. |
| 2" Rigid Conduit and Wiring (Cost per foot) | Information not provided. |

| State Transmitter 21 - 31 kW | Component Description | 50% Main |
|--|-------------------------------|---|
| | Component Description: | Transmitter & |
| | | Installation. |
| | | Installation |
| | | included w |
| | | /Transmitter on |
| | | Form 399. |
| | | Transformer |
| | | separate 399 line |
| | | item. Purchase |
| | | Order for all 11 |
| | | sites. |
| | Amount: | \$189,375.39 |
| Switchgear - industrial 800 amp | Information not provided. | |
| Transformer 3 phase/480v - 150 KVA | Component Description: | 50% Transformer |
| | | see quote line #16. Purchase Order for all 11 |
| | | sites. |
| | Amount: | \$1,958.60 |
| Other Electrical Service: | Information not provided. | |
| Electrical feed disconnects and other items necessary to meet electrical code requirements | | |
| 2" Rigid Conduit and Wiring (Cost per foot) | Information not provided. | |
| Transformer 3 phase/480v - 150 KVA | | |
| 100 1001 | Component Description: | 50% Transformer |
| | | see quote line |
| | | #16. Purchase |
| | | Order for all 11 |
| | A | sites. |
| | Amount: | \$1,958.60 |

UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW

Component Description: 50% Aux

Transmitter & Installation.
Installation included w /Transmitter on Form 399.
Transformer

separate 399 line item. Purchase Order for all 11

sites.

Amount: \$85,519.98

Cost Information

Antennas

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description Interim Antenna TUA-O4-2/8- S | Predetermined Cost Estimate \$96,130.00 | Estimated Cost \$6,400.00 | Estimated Cost Justification | Actual Cost \$0.00 | Actual Cost Justification |
|---|---|---------------------------------|---|-----------------------|------------------------------|
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | N/A | N/A | N/A |
| UHF - Lower Power Side Mount, One station antenna - medium power (50- 200 kW), horizontally polarized | \$89,400.00 | \$0.00 | The antenna in owned by the station and is an antenna to be used in case of antenna system failure. | N/A | N/A |
| UHF – Broadband Panel, Side Mount Auxiliary /Interim, 60 horizontally polarized | \$0.00 | \$0.00 | N/A | N/A | N/A |
| Primary Antenna TFU-28DSC /VP-R P230 | \$184,400.00 | \$182,060.00 | | \$77,338.80 | |

| UHF - High Power, Side Mount, basic slot antenna, 700 kW input, directional,, elliptically or circularly polarized | \$136,960.00 | \$136,960.00 | See Antenna narrative with attached quotes | \$61,632.00 | N/A |
|--|--------------|--------------|--|-------------|-----|
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | N/A | \$2,880.00 | N/A |
| Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed) | \$12,300.00 | \$11,700.00 | N/A | \$4,942.80 | N/A |
| Side mount brackets for high power antennas (if not included in antenna base cost) | \$23,150.00 | \$22,000.00 | N/A | \$7,884.00 | N/A |
| Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost) | \$5,260.00 | \$5,000.00 | N/A | N/A | N/A |
| | | | | | |

| Total for all | \$2,064,813.00 | \$1,325,768.14 | N/A | \$469,394.92 | N/A |
|---------------|----------------|----------------|-----|--------------|-----|
| systems | | | | | |

Components

| Actual Information Description | File Name | |
|--|---------------------------------|---|
| Sweep test of existing antenna | Information not provided. | |
| UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized | Information not provided. | |
| UHF – Broadband Panel, Side Mount Auxiliary /Interim, 60 horizontally polarized | Information not provided. | |
| UHF - High Power, Side Mount, basic slot antenna, 700 kW input, directional,, elliptically or circularly polarized | Component Description: Amount: | See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due w/Order UHF Hi Power Side Mount w/VP \$61,632.00 |
| Sweep test of existing antenna | Component Description: | See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due w/Order Sweep Test |
| | Amount: | \$2,880.00 |

| Elbow complex, single channel, at antenna input, | | |
|--|---------------------------|------------------|
| per 6 1/8. feedline (if | Component Description: | See Page 1 |
| needed) | | Attachment for |
| | | Detail Invoice, |
| | | Quote, PO, |
| | | Payment |
| | | Responsibility |
| | | Analysis 45% Due |
| | | w/Order Elbow |
| | Amazinti | Complex |
| | Amount: | \$4,942.80 |
| Side mount brackets for | | |
| high power antennas (if not | Component Description: | See Page 1 |
| included in antenna base | | Attachment for |
| cost) | | Detail Invoice, |
| | | Quote, PO, |
| | | Payment |
| | | Responsibility |
| | | Analysis 45% Due |
| | | w/Order Mounting |
| | | Brackets |
| | Amount: | \$7,884.00 |
| | | . , |
| Pattern scatter analysis for | Information not provided. | |
| side mount high/med power | | |
| antennas (if not included in | | |
| antenna base cost) | | |

Cost Information

Transmission Line

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|--|--------------------------------|-------------------|-----------------------------------|--------------|------------------------------|
| Interim Transmission Line | \$53,900.00 | \$51,500.00 | | \$0.00 | |
| Hoisting grip kits | \$800.00 | \$800.00 | Manufacturer preliminary estimate | N/A | N/A |
| Connectors | \$6,500.00 | \$6,500.00 | Manufacturer preliminary estimate | N/A | N/A |
| Grounding kits | \$200.00 | \$200.00 | Manufacturer preliminary estimate | N/A | N/A |
| Transmission line hangers | \$2,000.00 | \$2,000.00 | Manufacturer preliminary estimate | N/A | N/A |
| Flexible Air Transmission Line - dielectric, 4" | \$44,400.00 | \$42,000.00 | N/A | N/A | N/A |
| Sub-total | \$53,900.00 | \$51,500.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$2,064,813.00 | \$1,325,768.14 | N/A | \$469,394.92 | N/A |

Components

Information not provided.

Cost Information

Tower Equipment and Rigging Costs

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|--------------------------------------|--------------------------------|-------------------|------------------------------------|--------------|------------------------------|
| Primary Tower TOWER | \$210,500.00 | \$200,000.00 | | \$0.00 | |
| Tall Tower (greater than 500') | \$210,500.00 | \$200,000.00 | N/A | N/A | N/A |
| Sub-total | \$210,500.00 | \$200,000.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$2,064,813.00 | \$1,325,768.14 | N/A | \$469,394.92 | N/A |

Components

Information not provided.

Cost Information

Outside Professional Services

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|---|-----------------------------|-------------------|--|-------------|---------------------------|
| Outside Professional Services | \$78,380.00 | \$172,076.00 | | \$93,364.80 | |
| Additional Legal Expenses | \$24,500.00 | \$24,500.00 | Estimate for legal expenses for non-catalog advice and review including transition status reports and other miscellaneous legal needs. | \$4,068.63 | N/A |
| Attorney Fees - Prepare and File request for Special Temporary Authorization | \$3,680.00 | \$3,500.00 | N/A | N/A | N/A |
| Attorney Fees - Negotiation of lease and other matters for shared locations | \$4,210.00 | \$4,000.00 | N/A | N/A | N/A |
| Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application | \$2,365.00 | \$2,250.00 | N/A | N/A | N/A |

| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application | \$5,260.00 | \$5,000.00 | N/A | N/A | N/A |
|--|-------------|--------------|--|-------------|-----|
| Prepare request for Special Temporary Authorization | \$2,050.00 | \$1,500.00 | N/A | N/A | N/A |
| Prepare engineering section of FCC Form 2100 (main), License to Cover Application | \$1,580.00 | \$1,500.00 | N/A | N/A | N/A |
| Prepare engineering section of FCC Form 2100 (main), Construction Permit Application | \$3,155.00 | \$3,000.00 | N/A | \$1,862.50 | N/A |
| Perform engineering study for new channel assignment and antenna development | \$7,360.00 | \$2,000.00 | N/A | \$825.00 | N/A |
| Project management of the transition | \$18,960.00 | \$119,826.00 | See attachment "WUNM Program Designer - Manager Narrative" for details on estimated cost | \$86,608.67 | N/A |

| Prepare and or review reimbursement form | \$2,630.00 | \$2,500.00 | N/A | N/A | N/A |
|--|----------------|----------------|-----|--------------|-----|
| Address transition timing and coordination issues w/ other stations and wireless | \$2,630.00 | \$2,500.00 | N/A | N/A | N/A |
| Sub-total | \$78,380.00 | \$172,076.00 | N/A | \$93,364.80 | N/A |
| Total for all systems | \$2,064,813.00 | \$1,325,768.14 | N/A | \$469,394.92 | N/A |

Components

| • | | |
|--------------------------------|------------------------|--|
| Actual Information Description | File Name | |
| Additional Legal Expenses | Component Description: | Outside Professional Services |
| | Amount: | Additional Legal Expenses \$35.00 |
| | Component Description: | Outside Professional |
| | Amount: | Services Additional Legal Expenses \$70.00 |
| | Component Description: | Outside Professional |
| | | Services Additional Legal Expenses |
| | Amount: | \$105.00 |

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 350.00/11 equal 31.82 as outlined on page 1 of invoice.

Amount: \$31.82

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$134.90

Component Description: Outside

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 959.50/11 equal 87.23 as outlined on page 1 of invoice.

Amount: \$87.23

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 3472.00/11 equal 315.64 as outlined on page 1 of invoice.

Amount: \$315.64

Component Description: Outside

Professional Services

Additional Legal Expenses Legal services benefit entire FCC

Repack project across all 11 Call Signs/Facility IDs, 2059.90/11 equal 187.26 as outlined on page 1 of

invoice.

Amount: \$187.26

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 2594.40/11 equal 235.85 as outlined

on page 1 of invoice.

Amount: \$235.85

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$35.00

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$105.00

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$73.00

Professional Services

Additional Legal

Expenses

Amount: \$182.50

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$35.00

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$471.80

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$35.00

Component Description: Outside

Professional Services

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$245.00 /11 as indicated on

page 1 of Invoice

Amount: \$22.27

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 323.00/11 equal 29.36 as outlined on page 1 of invoice.

Amount: \$29.36

Component Description: Outside

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 315.00/11 equal 28.64 as outlined on page 1 of

invoice. \$28.64

Component Description: Outside

Amount:

Professional Services

Additional Legal

Expenses

Amount: \$852.00

Professional Services

Additional Legal
Expenses Legal
services benefit
entire FCC
Repack project
across 10 of the
11 Call Signs
/Facility IDs,
3378.88/10 equal
337.89 as outlined

on page 1 of invoice.

Amount: \$337.89

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$175.00

Component Description: Outside

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 402.00/11 equal 36.55 as outlined on page 1 of invoice.

Amount: \$36.55

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 67.40/11 equal 6.13 as outlined on page 1 of invoice.

Amount: \$6.13

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$67.40

Component Description: Outside

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 175.00/11 equal 15.91 as outlined on page 1 of invoice.

Amount: \$15.91

Professional Services

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$70.00/11

Station: \$70.00/11 as indicated on page 1 of Invoice

Amount: \$6.36

Component Description: Outside

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 572.90/11 equal 52.08 as outlined on page 1 of invoice.

Amount: \$52.08

Component Description: Outside

Professional Services

Additional Legal

Expenses

Amount: \$33.70

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 1617.10/11 equal 147.01 as outlined on page 1 of invoice.

Amount: \$147.01

Component Description: Outside

Professional Services

Additional Legal Expense Legal services benefit entire FCC

entire FCC
Repack project
across all 11 Call
Signs/Facility IDs,
168.50/11 equal
15.32 as outlined
on page 1 of
invoice.

Amount: \$15.32

| | Component Description: Amount: | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 368.00/11 equal 33.46 as outlined on page 1 of invoice. \$33.46 |
|--|---------------------------------|---|
| | Component Description: Amount: | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 765.00/11 equal 69.55 as outlined on page 1 of invoice. \$69.55 |
| Attorney Fees - Prepare and File request for Special Temporary Authorization | Information not provided. | |
| Attorney Fees - Negotiation of lease and other matters for shared locations | Information not provided. | |
| Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application | Information not provided. | |

| Information not provided. | |
|---------------------------------|---|
| Information not provided. | |
| Information not provided. | |
| Component Description: Amount: | Outside Professional Services Engineering Section FCC Form 2100 Construction Permit Application Primary/Main \$1,862.50 |
| Component Description: Amount: | Outside Professional Services Engineering Study New Channel Assignment Antenna Development \$825.00 |
| Component Description: Amount: | Outside Professional Services Project Management See attachment pg. 3 & 4 for Project Summary \$9,022.50 |
| | Information not provided. Information not provided. Component Description: Amount: Component Description: |

Professional
Services Project
Management of
Transition See
attachment pg 3-5
for Contract

/Invoice Summary.

Amount: \$53,835.90

Component Description: Outside

Professional Services Project Management of Transition See attachment pg 3-5 for Contract

/Invoice Summary.

Amount: \$12,541.80

Component Description: Outside

Professional
Services Project
Management of
Transition See
attachment pg 3-5

for Contract

/Invoice Summary.

Amount: \$4,504.97

Component Description: Outside

Professional Services Project Management

Amount: \$9,022.50

| | Component Description: Amount: | Outside Professional Services Project Management See attachment pg. 3 & 4 for Project Summary \$6,703.50 |
|--|---------------------------------|--|
| Prepare and or review reimbursement form | Information not provided. | |
| Address transition timing Information not provided. and coordination issues w/ other stations and wireless | | |

Cost Information

Other Expenses

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|--|--------------------------------|-------------------|--|--------------|------------------------------|
| Other Expenses | \$86,603.00 | \$81,053.00 | | \$19,878.75 | |
| MVPD Notification of Channel Change | \$5,500.00 | \$5,500.00 | Preliminary estimate for service | N/A | N/A |
| Develop and air announcement of upcoming channel change | \$2,000.00 | \$2,000.00 | Preliminary estimate | N/A | N/A |
| Equipment Delivery and Handling Charges | \$6,000.00 | \$6,000.00 | Preliminary estimate | N/A | N/A |
| DTV Medical Facility Notification | \$11,550.00 | \$6,000.00 | Preliminary estimate for service | N/A | N/A |
| Disposal Costs (for equipment and other waste, net of any salvage value) | \$61,553.00 | \$61,553.00 | Quotes attached | \$19,878.75 | N/A |
| Sub-total | \$86,603.00 | \$81,053.00 | N/A | \$19,878.75 | N/A |
| Total for all systems | \$2,064,813.00 | \$1,325,768.14 | N/A | \$469,394.92 | N/A |

Components

| Actual Information | |
|--------------------|-----------|
| Description | File Name |

| MVPD Notification of Channel Change | Information not provided. | |
|--|---------------------------|--|
| Develop and air announcement of upcoming channel change | Information not provided. | |
| Equipment Delivery and Handling Charges | Information not provided. | |
| DTV Medical Facility Notification | Information not provided. | |
| Disposal Costs (for equipment and other waste, net of any salvage value) | Component Description: | 50% Transmitter Removal. Purchase Order for all 11 sites. |
| | Amount: | \$19,878.75 |

Cost Information

Grand Total

| | Predetermined Cost Estimate | Estimated Cost | Actual Cost |
|-----------------------|--------------------------------|----------------|--------------|
| Total for all systems | \$2,064,813.00 | \$1,325,768.14 | \$469,394.92 |

| Reimbursem | entestiatus | Response |
|------------|--|----------|
| | The facility has ceased operating on its pre- auction channel. | No |
| | Construction of final facilities or all necessary modifications are complete. | No |
| | All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator. | No |

Section Question Response

Submission of Estimated Expenses Statements

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.

- Person signing
 below certifies that he
 /she is authorized to
 submit this TV
 Broadcaster
 Relocation Fund
 Reimbursement
 Form on behalf of
 the above-named
 entity.
- 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.
- 3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.

- 4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
- 5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
- 6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
- 7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.

I declare, under penalty of perjury, that I am an authorized representative of the abovenamed applicant for the Authorization(s) specified above. Donald
Smith
Director of
New
Technologies
Compliance
& Planning

05/08/2019

Attachments