

(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility 69300 Service: DTS Call WUNF-TV Channel: 20 (UHF)

ID:

Sign:

File **0000033807** 

Number:

FRN: **0001910066** Date **10/18** 

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	WUNF-TV is a DTS station with 2 sites. The transition plan for WUNF-TV is to construct a new facility at a different site for site #1 due to issues outlined in the unable to construct waiver request. Site #2 will be constructed at the existing site.

#### **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	Auxiliary - Site 1
	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-30
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	16 kW
	Justification for New Transmitter	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

# Auxiliary Transmitter

# **Other Transmitter Costs**

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	No

	Size	N/A
	Length	N/A
	Other Electrical Service	No
	Description	N/A
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.

# **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	1
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter	Manufacturer	
Manufacturer and Type	Model	DCX-2
	Year	1996
	Туре	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	40 kW

#### **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-100
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	53.5 kW
	Justification for New Transmitter	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

#### Primary Transmitter

# **Other Transmitter Costs**

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	No

	Size	N/A
	Length	N/A
	Other Electrical Service	No
	Description	N/A
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** 

**Transmitter** Information not provided.

# **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	2
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	LU250
	Year	2003
	Туре	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	0.25 kW

#### **New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	TXUD-250
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	0.25 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.

# Primary Transmitter

# **Other Transmitter Costs**

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A

	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	No
	Description	N/A
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

# Primary

**Other Transmitter Cost Not Listed** 

**Transmitter** Information not provided.

#### **Antennas**

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

#### **Add Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Auxiliary - Site 1
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this antenna currently shared with any other stations?	No
	Is this 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	Horizontal
	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)	113.5 kW

Manufacturer	
Model	TFU- 16DSB-M
Year	2003

#### **New Antenna Costs**

Section	Question	Response
New Antenna Description	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	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)	1000.0 kW
	Manufacturer	

Model	SAA20- C170-G400- ES6R-20
Year	2019
Justification for New Antenna	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

#### **Other Antenna Costs**

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Туре	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	7 3/16 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.

#### **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	2
	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 Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Туре	Other
	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	Narrowband Panel
	ERP: (Effective Radiated Power)	1.5 kW

Manufacturer	
Model	4DR-8-2HW
Year	2003

#### **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	Broadband Panel
	Number of Stations Supported	1
	Number of Panels/Bays	4
	Lower Limit	470.00 MHz
	Upper Limit	862.00 MHz
	Design power capacity in use	25.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1.35 kW
	Manufacturer	
		1

Model	2x2 750 10325
Year	2019
Justification for New Antenna	The current antenna is designed to operate on channel 25 plus or minus one or two channels. The antenna will not operate properly on channel 20.

#### **Other Antenna Costs**

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Туре	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
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 a high power 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

#### **Other Antenna Cost Not Listed**

Information not provided.

#### **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	1
	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 Manufacturer and Type	Class	Full Power
	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)	125.0 kW

Manufacturer	
Model	ATW12HS4- ESC170- 25S
Year	2010

#### **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?	No
	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	Top 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)	1000.0 kW
	Manufacturer	

Model	SAA20- C170-E400- ET6R-20
Year	2019
Justification for New Antenna	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

#### **Other Antenna Costs**

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Туре	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	7 3/16 inches inches

Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	No
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.

Transmission <sup>Seffien</sup>	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

#### Add Transmission Line

# Auxiliary Transmissio

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Site #1 Emergency Auxiliary Part 1
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmission currently shared with any other stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Туре	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	210 feet

per run

#### **New Transmission Line**

#### Auxiliary Transmissio

on Line Section	Question	Response
New Transmission Line Costs	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Туре	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	650 feet per run
	Justification for New Transmission Line	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

Auxiliary Other Transmission Line Expenses Not Listed

Transmission to inetion not provided.

# Primary Transmission

#### **Add Transmission Line**

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	1
	Is this transmission currently shared with any other stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Туре	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	400 feet per run

#### **New Transmission Line**

Primary
<b>Transmissio</b>

on Line Settion	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Туре	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	830 feet per run
	Justification for New Transmission Line	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

Other Transmission Line Expenses Not Listed

Primary

Other Transmission

Transmission to provided.

#### 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

#### **Add Tower**

Section	Question	Response
Existing Tower Description	Type of change	Move Equipment
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	Is this tower consider Complex?	Candelabra
	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 Structure	Do you have a tower registration number?	Yes
Registration	ASR Number	1023079
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	35° 13' 20.0" N-
	Longitude (NAD83)	082° 32' 58.0" W-
	Overall Structure Height	721.78 feet
	Support Structure Height	672.56 feet
	Ground Elevation Above Mean Sea Level (AMSL)	3425.16 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Capstar Radio Operating Company
Date Constructed	09/01/1997

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
59818	WMYI	FM
70149	WYCW	DTV

#### Primary Tower

#### **Tower Rigging Costs**

Section	Question	Response
Tower Rigging Costs	Complex Tower	Candelabra
Helicopter Services Required	Are helicopter services required?	No

#### Primary Tower

Other Tower Expenses Not Listed

Information not provided.

# Primary Tower

#### **Existing Tower**

Section	Question	Response
Existing Tower Description	Type of change	Move Equipment
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	No
	One or more FM, AM or TV radio broadcaster(s)	N/A
	Others Types of Users	N/A
	Is tower documented for structural analysis?	No
	Is tower compliant with Rev G?	Unknown
Existing Tower Structure	Do you have a tower registration number?	No
Registration	ASR Number	
Coordinates (NAD83 ( North American Datum of	Latitude (NAD83)	35° 28' 25.0" N-
1983))	Longitude (NAD83)	083° 19' 23.0" W-
	Overall Structure Height	98.00 feet
	Support Structure Height	98.00 feet
	Ground Elevation Above Mean Sea Level (AMSL)	2421.00 feet
	Structure Type	TOWER - Free Standing or Guyed Structure

Tower Owner	University of North Carolina
Date Constructed	06/07/2012

# 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	250
	Explanation	Because the transmission site is leased 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	Yes
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2

	Do you have Distributed Transmission System engineering services?	Yes
	Critical Facility	1
	Terrain-Shielded Facility	10
Attorney and Other Outside Consulting	Prepare and file Form FCC Construction Permit Application	Yes
Services	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	Negotiation of Lease and other Matter for Shared Locations	No
	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.
Microwave Frequency Study	Microwave system frequency search for available frequencies.
Microwave License Preparation	Licensing of microwave system
Microwave PCN	Prior coordination notices for microwave system construction to extend program content distribution to the replacement site.
Tower Structural Analysis	Required by State

# 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	No
	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?	No
	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

## Other Expenses Not Listed

Name	Description
Microwave System	Microwave radios, antenna systems, configuration, and other items necessary for a complete system
Network Interfaces	Router interfaces and network switches
Program Transport Stream Processing	Equipment necessary to "rebrand" for the station the generic transport delivered to the site.
Mechanical Construction	Construction and modifications to the HVAC infrastructure of the existing building as required to support the new transmitters.
Electrical Construction	Construction and modifications to the electrical infrastructure of the existing building as required to support the new transmitters
General Construction	General construction and administrative costs necessary for the installation of transmitters in an existing building.

# **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
Primary Transmitter ULXTE-100	\$1,824,800.00	\$1,705,744.00		\$1,424,866.36	
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	\$1,788,000.00	\$1,700,000.00	N/A	\$1,419,122.36	N/A
Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$5,744.00	***System Notice: Estimate adjusted and locked because line has been superseded. ***Remainder of expenses relocated to Other Expenses	\$5,744.00	N/A
Primary Transmitter TXUD-250	\$15,040.00	\$15,040.00		\$15,040.00	
UHF - Air Cooled Solid State Transmitter 0.25 kW	\$15,040.00	\$15,040.00	Manufacturer purchase quote	\$15,040.00	N/A
Auxiliary Transmitter ULXTE-30	\$709,550.00	\$651,958.60		\$347,916.61	

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$650,000.00	N/A	\$345,958.01	N/A
Transformer 3 phase /480v - 150 KVA	\$25,550.00	\$1,958.60	***System Notice: Estimate adjusted and locked because line has been superseded. ***Remaining expense relocated to Other Expenses	\$1,958.60	N/A
Sub-total	\$2,549,390.00	\$2,372,742.60	N/A	\$1,787,822.97	N/A
Total for all systems	\$5,821,424.78	\$5,323,139.67	N/A	\$3,927,014.38	N/A

<b>Actual Information</b>	
Description	File Name

UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW

**Component Description:** 50% Primary

Transmitter & Installation. Installation included w

/Transmitter Cost on Form 399.
Purchase Order is for all 11 Sites.
Transformer on line 16 of quote is separate Form 399 Line Item.

**Amount:** \$764,040.63

Component Description: Primary

Transmitter Per FCC Hotline (Paige, 7/8/2019)

credit for transformer applied to transmitter,

otherwise causes system error. Immediate Due Date on invoice adjusted to vendor terms of 60 days. Refer to attachment pgs 2-4 & PO/Quotes

pgs 5-27. \$655,081.73

Amount:

		Transformer that
		is included on
		invoice with the
		cost for
		transmitter. Transformer has
		unique 399 Line
		Item. See line 16
		of quote for detail
		cost. Purchase
		Order is for all 11
		sites.
	Amount:	\$5,744.00
JHF - Air Cooled Solid State		
Fransmitter 0.25 kW	Component Description:	Primary
		Transmitter
	Amount:	\$15,040.00

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW

**Component Description:** 50% Aux

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

Purchase Order is for all 11 sites. Transformer on line 16 of quote is separate Form 399 Line Item.

**Amount:** \$189,142.59

Component Description: Aux. Transm. See

attach. pg. 2-4 for payment details. Per FCC Hotline (Paige, 7/8/2019)

credit for transformer applied to transmitter,

otherwise causes system error. Immediate Due Date adjusted to vendor terms of 60 days. PO for multiple sites.

**Amount:** \$156,815.42

Transformer 3 phase/480v - 150 KVA

**Component Description:** 50% Transformer

on line 16 of quote included w /cost of transmitter

on invoice.
Purchase Order includes all 11

sites.

**Amount:** \$1,958.60

# **Cost Information**

#### **Antennas**

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 Cos Justification
Primary Antenna 2x2 750 10325	\$14,741.80	\$14,411.80		\$8,011.80	
UHF - High Power, Side Mount, broadband panel, 4 bay,, 1 kW input, directional,, elliptically or circularly polarized	\$0.00	\$0.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
UHF - High Power, Side Mount, broadband panel, 4 bay,, 1 kW input, directional,, horizontally polarized	\$8,011.80	\$8,011.80	***System Notice: Estimate adjusted and locked because line has been superseded.  ***Manufacturer's estimated cost	\$8,011.80	N/A
Primary Antenna SAA20- C170-E400- ET6R-20	\$315,390.00	\$182,236.50		\$78,818.25	

UHF - High Power Top Mount (200- 1000 kW), One station	\$289,500.00	\$157,636.50	See attached RFS Antenna Change Narrative with Pricing	\$78,818.25	N/A
antenna , elliptically or circularly polarized					
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	\$13,900.00	\$13,200.00	N/A	N/A	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
Auxiliary Antenna SAA20- C170-G400- ES6R-20	\$170,061.50	\$167,621.50		\$60,510.75	

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
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	\$13,900.00	\$13,200.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly	\$121,021.50	\$121,021.50	See attached RFS Antenna Change Narrative with Pricing	\$60,510.75	N/A
polarized					

Total for	\$5,821,424.78	\$5,323,139.67	N/A	\$3,927,014.38	N/A
all					
systems					

Actual Information Description	File Name	
UHF - High Power, Side Mount, broadband panel, 4 bay,, 1 kW input, directional,, elliptically or circularly polarized	Information not provided.	
Sweep test of existing antenna	Information not provided.	
UHF - High Power, Side Mount, broadband panel, 4 bay,, 1 kW input, directional,, horizontally polarized	Component Description: Amount:	Primary Antenna w/freight cost. \$8,011.80
UHF - High Power Top Mount (200-1000 kW), One station antenna, elliptically or circularly polarized	Component Description:  Amount:	50% Primary Antenna included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. \$78,818.25
Sweep test of existing antenna	Information not provided.	
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	Information not provided.	
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.	

Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.	
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	Information not provided.	
Sweep test of existing antenna	Information not provided.	
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	Component Description:	50% Auxilliary Antenna included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites.
	Amount:	\$60,510.75

## **Cost** Information

#### **Transmission Line**

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

Description Primary Transmission Line	Predetermined Cost Estimate \$240,700.00	Estimated Cost \$172,486.63	Estimated Cost Justification	Actual Cost \$86,243.32	Actual Cost Justification
Rigid Transmission Line - copper, 7 3 /16"	\$240,700.00	\$172,486.63	See attached RFS Antenna Change Narrative with Pricing	\$86,243.32	N/A
Auxiliary Transmission Line	\$188,500.00	\$146,788.88		\$73,394.44	
Rigid Transmission Line - copper, 7 3 /16"	\$188,500.00	\$146,788.88	See attached RFS Antenna Change Narrative with Pricing	\$73,394.44	N/A
Sub-total	\$429,200.00	\$319,275.51	N/A	\$159,637.76	N/A
Total for all systems	\$5,821,424.78	\$5,323,139.67	N/A	\$3,927,014.38	N/A

<b>Actual Information</b>	
Description	File Name

Rigid Transmission Line - copper, 7 3/16"		
30pp01, 1 0/ 10	Component Description:	50% Primary
		Transmission Line
		included in Inv &
		PO Line 7. Invoice
		& Purchase Order
		are for 10 sites.
	Amount:	\$86,243.32
Rigid Transmission Line -		
copper, 7 3/16"	Component Description:	50% Auxilliary
		Transmission Line
		included in Inv &
		PO Line 7. Invoice
		& Purchase Order
		are for 10 sites.
	Amount:	\$73,394.44

## **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	\$84,200.00	\$10,000.00		\$0.00	
Short Tower (less than 500')	\$84,200.00	\$10,000.00	N/A	N/A	N/A
Primary Tower TOWER	\$421,000.00	\$312,255.28		\$180,345.45	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$312,255.28	See attached RFS Antenna Change Narrative with Pricing	\$180,345.45	N/A
Sub-total	\$505,200.00	\$322,255.28	N/A	\$180,345.45	N/A
Total for all systems	\$5,821,424.78	\$5,323,139.67	N/A	\$3,927,014.38	N/A

Actual Information Description	File Name
Short Tower (less than 500')	Information not provided.

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)

**Component Description:** 50% Primary

/Complex Tower Installation for Auxilliary Antenna included in Inv &

PO Line 8. Invoice &

Purchase Order are for 10 sites.

**Amount:** \$24,217.81

**Component Description:** 50% Primary

/Complex Tower Installation for Auxilliary Antenna included in Inv & PO Line 8.

Invoice &

Purchase Order are for 10 sites.

**Amount:** \$24,217.81

**Component Description:** 50% Primary

/Complex Tower Installation for Primary Antenna included in Inv &

PO Line 8. Invoice &

Purchase Order are for 10 sites.

**Amount:** \$131,909.83

# **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 Co
Outside Professional Services	\$182,245.00	\$294,950.00		\$205,505.04	
Tower Structural Analysis	\$50,060.00	\$50,060.00	-Tower Consultants Terminated Contract \$18,820 (see approved invoice 8593) - Potential Services from TEPCO (see invoice 336764 w/supporting documentation): Structural Analysis \$2,500, Updated App. Map \$2,500, TIA \$1,500 - ERI Contract \$24,740 InvWUNF001- 003	\$45,060.00	N/A
Microwave PCN	\$1,000.00	\$1,000.00	Preliminary estimate of services	N/A	N/A
Microwave License Preparation	\$1,000.00	\$1,000.00	Preliminary Estimate for Services	N/A	N/A
Microwave Frequency Study	\$1,100.00	\$1,100.00	Preliminary Estimate of Engineering Services	N/A	N/A

Additional Legal Expenses	\$10,000.00	\$10,000.00	Preliminary estimate for legal expenses for non-catalog advice and review including transition status reports and other miscellaneous legal needs; estimate exceeds predetermined cost estimate.	\$5,219.44	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	\$2,105.00	\$2,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$10,000.00	Cost estimated to exceed Predetermined Cost Estimate.	\$5,278.50	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 - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,000.00	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	\$2,089.40	N/A
DTS Site RF Consulting Engineer - Critical Facility	\$8,420.00	\$8,000.00	N/A	N/A	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Project management of the transition	\$39,500.00	\$147,540.00	See attachment "WUNF Program Designer - Manager Narrative" for details on estimated cost	\$137,245.20	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
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$6,250.00	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,937.50	N/A

RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$5,000.00	Estimated Cost Exceeds PreDetermined Cost Estimate	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
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	\$4,100.00	\$3,000.00	N/A	\$1,425.00	N/A
DTS Site RF Consulting Engineer - Terrain- shielded Facility	\$26,300.00	\$25,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	N/A	N/A

Sub-total	\$182,245.00	\$294,950.00	N/A	\$205,505.04	N/A
Total for all systems	\$5,821,424.78	\$5,323,139.67	N/A	\$3,927,014.38	N/A

Components		
Actual Information Description	File Name	
Tower Structural Analysis		
	Component Description:	Other Expenses Tower Analysis & Mapping Climbing Inspection
	Amount:	\$11,350.00
	Component Description:	Other Expenses Tower Analysis & Mapping Structural
	Amount:	\$8,200.00
	Component Description:	Other Expenses Tower Analysis & Mapping Foundation Mapping
	Amount:	\$5,190.00
	Component Description:	Structural Analysis, see attachment pg. 7 for Schedule of Services.
	Amount:	\$1,500.00
	Component Description:	Outside Professional Services Tower Structural Analysis
	Amount:	\$18,820.00

Microwave PCN	Information not provided.	
Microwave License Preparation	Information not provided.	
Microwave Frequency Study	Information not provided.	
Additional Legal Expenses		
	Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requester reflects portion payable per Station: \$245.00 /11 as indicated of
	Amount:	\$22.27
	Component Description:	Outside Professional Services Additional Legal
		_
		Expenses Invoice applies to all 11 repack stations, amount requested
		applies to all 11 repack stations,

Professional Services

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$368.00

/11 as indicated on

page 1 of Invoice \$33.46

Component Description:

**Amount:** 

Professional Services

Outside

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$315.00 /11 as indicated on

page 1 of Invoice

**Amount:** \$28.64

Component Description: Outside

Professional Services

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$168.50 /11 as indicated on page 1 of Invoice

**Amount:** \$15.32

Professional Services

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per

payable per
Station: \$572.90
/11 as indicated on page 1 of Invoice

**Amount:** \$52.08

Component Description: Outside

Professional Services

Additional Legal
Expenses Invoice
applies to all 11
repack stations,
amount requested
reflects portion
payable per
Station: \$175.00
/11 as indicated on
page 1 of Invoice

**Amount:** \$15.91

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$70.00

Professional Services

Additional Legal
Expenses Invoice
applies to all 11
repack stations,
amount requested
reflects portion
payable per
Station: \$959.50
/11 as indicated on
page 1 of Invoice

**Amount:** \$87.22

Component Description: Outside Prof. Svcs

Additional Legal

Expenses

**Amount:** \$182.50

Component Description: Outside Prof Svcs

Additional Legal

Expenses

**Amount:** \$182.50

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$292.00

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 2594.40/11 for 235.85 as outlined on page 1 of invoice.

**Amount:** \$235.85

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$303.30

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 for 187.27 as outlined on page 1 of invoice.

**Amount:** \$187.27

Professional Services

Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 1617.10/11 for

outlined on page 1

of invoice.

\$147.01 as

**Amount:** \$147.01

Component Description: Outside

Professional Services

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$402.00 /11 as indicated on

page 1 of Invoice

**Amount:** \$36.55

Component Description: Outside

Professional Services

Additional Legal Expenses \$292.00 for Attorney Fees

STA

**Amount:** \$146.00

Professional Services

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$67.40/11

Station: \$67.40/11 as indicated on page 1 of Invoice

**Amount:** \$6.13

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$105.00

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$630.00

Component Description: Outside

Professional Svcs Additional Legal

Expenses

**Amount:** \$109.50

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$33.70

Professional Services

Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$3472.00 /11 as indicated on

page 1 of Invoice

**Amount:** \$315.63

Component Description: Outside

Professional Services

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

as indicated on page 1 of Invoice

Amount: \$6.37

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$868.70

Professional Services

Additional Legal
Expenses Invoice
applies to all 11
repack stations,
amount requested
reflects portion
payable per
Station: \$323.00
/11 as indicated on
page 1 of Invoice

**Amount:** \$29.36

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$175.00

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$175.00

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$182.50

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$105.00

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: \$765.00
/11 as indicated on
page 1 of Invoice

**Amount:** \$69.55

Component Description: Outside

Professional Services

Additional Legal

Expenses

**Amount:** \$303.30

FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase Information not provided.

Attorney Fees - Prepare and File request for Special Outside Prof. Svcs **Component Description: Temporary Authorization** Attorney Fees STA \$36.50 Amount: **Outside Profess Component Description:** Svcs. Attorney Fees STA Amount: \$265.50 **Component Description:** Outside Professional Services Attorney Fees STA Amount: \$1,519.80 **Component Description:** Outside Professional Services Attorney Fees STA \$560.40 Amount: **Component Description:** Outside Professional Services Attorney Fees STA \$146.00 Other Legal Expenses **Amount:** \$292.00 **Component Description:** Outside Professional Services Attorney

Fees STA

**Amount:** \$2,604.30

Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application

Information not provided.

Information not provided.	
Component Description:  Amount:	Outside Professional Services Attorney Fees Construction Permit \$2,089.40
Information not provided.	
Information not provided.	
Component Description:  Amount:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract /Invoice Summary. \$5,312.27
Component Description:	Outside Professional Services Project Management of Transition See attachment pg. 3-6 for Contract /Invoice Summary.
	Component Description:  Amount:  Information not provided.  Information not provided.  Component Description:

Component Description: Outside

Professional Services Project Management of Transition See attachment pg 3-6 for Contract

/Invoice Summary. PO/Contract for all

eleven transmitter

sites.

**Amount:** \$10,624.54

Component Description: Outside

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

for Contract

/Invoice Summary. PO/Contract for all eleven transmitter

sites.

**Amount:** \$5,312.27

Component Description: Outside

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

/Invoice Summary.

**Amount:** \$26,350.00

Component Description: Outside

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

/Invoice Summary.

**Amount:** \$12,375.40

Component Description: Outside

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

ioi Contract

/Invoice Summary.

**Amount:** \$4,446.41

Component Description: Outside

Professional Services Project Management See Attachment Pg. 3 & 4 for Summary

**Amount:** \$9,022.50

Component Description: Outside

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

ioi ooniiaat

/Invoice Summary.

**Amount:** \$53,102.70

Component Description: Outside

Professional Services Project

Management

**Amount:** \$9,022.50

Component Description: See project &

invoice summary in attachment pgs

3-6

**Amount:** \$53,102.70

Component Description: Outside

Professional Services Project Management See attachment pg. 3 &

4 for Project

Summary

**Amount:** \$6,707.50

Address transition timing and coordination issues w/ other stations and wireless

Information not provided.

Perform engineering study for new channel assignment and antenna development

Component Description: Outside

Professional

Services

Engineering Study New Channel Assignment Antenna Development

**Amount:** \$1,875.00

Component Description: Outside

Professional Services

Engineering Study New Channel Assignment Antenna Development

**Amount:** \$2,600.00

Component Description: Outside

Professional
Services Perform
Engineering
Studies Quote is
RATE CARD
furnished by
vendor for
Professional

Services they offer

and are not specific to any particular station.

**Amount:** \$1,775.00

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description:  Amount:	Outside Professional Services RF Engineering Consulting Fees Construction Permit Application Main/Primary \$2,937.50
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	Information not provided.	<b>\$2,007.100</b>
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.	
Prepare request for Special Temporary Authorization	Component Description:  Amount:	Outside Professional Services Prepare STA \$1,425.00
DTS Site RF Consulting Engineer - Terrain-shielded Facility	Information not provided.	
ASR modification (prepare FCC Form 854)	Information not provided.	

## **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 C
Other Expenses	\$1,655,196.48	\$1,649,646.48		\$1,446,362.36	
Mechanical Construction	\$197,624.00	\$197,624.00	See attached document WUNF GC Budget	\$183,486.80	N/A
Electrical Construction	\$701,034.00	\$701,034.00	See attached document WUNF GC Budget	\$665,196.52	N/A
General Construction	\$473,005.94	\$473,005.94	See attached document WUNF GC Budget	\$358,513.03	N/A
DTV Medical Facility Notification	\$11,550.00	\$6,000.00	Preliminary Service Estimate	\$3,750.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$24,900.00	\$24,900.00	The decommissioning of site #1 is an unknown due to the current site access issues.	N/A	N/A
Develop and air announcement of upcoming channel change	\$2,000.00	\$2,000.00	N/A	N/A	N/A
MVPD Notification of Channel Change	\$6,000.00	\$6,000.00	Preliminary Service Estimate	\$463.64	N/A
Network Interfaces	\$5,178.14	\$5,178.14	See Program Delivery and Network Budget Attachment	\$1,047.97	N/A

Program Transport Stream Processing	\$22,718.40	\$22,718.40	See Program Delivery and Network Budget Attachment	\$22,718.40	N/A
Microwave System	\$211,186.00	\$211,186.00	See Program Delivery and Networking Budget attachment	\$211,186.00	N/A
Sub-total	\$1,655,196.48	\$1,649,646.48	N/A	\$1,446,362.36	N/A
Total for all systems	\$5,821,424.78	\$5,323,139.67	N/A	\$3,927,014.38	N/A

#### Components

Actual Information	
Description	File Name

Component Description: Mechanical/HVAC

Contract PO for multiple sites

**Amount:** \$111,660.15

Component Description: Other Expenses

Mechanical
Contract See
attachment pg. 1
for payment
details. PO for
multiple sites.

**Amount:** \$57,902.50

Component Description: Other Expenses

Mechanical
Contract See
attachment pg 1
for payment
details. See

attachment pg 25-

26 for PO Summary w

/approved change

orders.

**Amount:** \$13,924.15

#### **Electrical Construction**

**Component Description:** Electrical Contract

PO for multiple

sites

**Amount:** \$78,319.90

Component Description: Other Expenses

Electrical Contract See attachment pg 1 for payment detail. PO for multiple sites.

**Amount:** \$453,375.15

Component Description: Other Expenses

Electrical Contract See attachment pg 1 for payment details. See

attachment pg 25-

26 for PO Summary w

/approved change

orders.

**Amount:** \$133,501.47

#### **General Construction General Contract Component Description:** PO for multiple sites Amount: \$29,640.00 **Component Description:** Other Expenses **General Contract** See attachment pg 1 for payment details. PO for multiple sites. **Amount:** \$135,489.00 **Component Description:** Other Expenses **General Contract** See attachment pg 1 for payment details. See attachment pg 25-26 for PO Summary w /approved change orders. Amount: \$31,694.03 **Component Description: General Contract** PO for multiple sites Amount: \$161,690.00 **DTV Medical Facility** Notification **Component Description:** Medical Notification, See schedule of services. PO /quote for multiple call/locations. Amount: \$3,750.00 Disposal Costs (for Information not provided. equipment and other waste, net of any salvage value)

Develop and air announcement of upcoming channel change	Information not provided.	
MVPD Notification of Channel Change	Component Description:	MVPD Notify See attach pg. 12-13 \$5,100 for 11 sites equal 463.64 each
	Amount:	\$463.64
Network Interfaces		
	Component Description:	Other Expenses Network Switch 11 Switches for total of 11,527.67 equals 1,047.97 per transmitter site.
	Amount:	\$1,047.97
Program Transport Stream Processing	Component Description:	Program Transport Stream
	Amount:	Processing \$22,718.40
Microwave System		
	Component Description: Amount:	Other Expenses Microwave System \$13,456.00
	Component Description:	Other Expenses Microwave System
	Amount:	\$197,730.00

## Cost Information

#### **Grand Total**

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$5,821,424.78	\$5,323,139.67	\$3,927,014.38

Reimbursem	enrestiatus	Response
	The facility has ceased operating on its pre- auction channel.	Yes
	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

10/18/2019

& Planning

Section Question Response

## Submission of Actual Cost Documentation Statements

WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (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 AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).

- 1. The Authorized
  Person signing
  below certifies and
  represents that he
  /she is authorized to
  submit this TV
  Broadcaster
  Relocation Fund
  Reimbursement
  Form on behalf of
  the above-named
  entity.
- The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.
- The above-named entity acknowledges that all certifications and attached documentation are considered material representations.

- 4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
- 5. 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 (full power and Class A stations) and/or otherwise modify a television station's facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD).
- 6. 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.
- 7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

- 8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.
- 9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite 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. Robert
Levin
Director of
Finance and
Administration

10/18/2019

#### **Attachments**