

Federal Communications Commission

#### (REFERENCE COPY - Not for submission)

### FCC Form 399: Reimbursement Request

Facility 69292 ID: File 000002 Number:	Service: DTV	Call Sign:	WUND-TV	Channel: 29 (UHF)
FRN: 0001910066	Date Submitted:	02/04 /2019		

#### Applicant Name, Type, and Contact Information

#### Applicant Information

University of NorthPO Box 14900+1fcc_notice@unctv.GovernmentCarolinaResearch(919)orgEntityDoing Business As:Triangle Park,549-University of NorthNC 277097000	Applicant	Address	Phone	Email	Applicant Type
Carolina United States	<b>Carolina</b> Doing Business As:	Research Triangle Park,	(919) 549-	—	

#### Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

### Preparer Contact Name and Information

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

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 an 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	Section	Question	Response
	Transmitter Related Expenses	Do you have transmitter related expenses?	Yes

Auxiliary	Existing Transmitter Information				
Transmitter	Section	Question	Response		
	Existing Transmitter Description	Type of change	Purchase New		
		Use	Auxiliary (Backup)		
		Description of Use	Auxiliary (Backup to Main)		
		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	DHD30P1		
		Year	2001		
		Туре	Solid State		
		Solid State Cooling	Air Cooled		
		Solid State Power Capacity	7.25 kW		
		1			

#### **Existing Transmitter Information**

Auxiliary	New Transmitter Costs			
Transmitter	Section	Question	Response	
	New Transmitter	Use	Auxiliary (Backup)	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Manufacturer		
		Model	ULXTE-20	
		Transmitter Type	Solid State	
		Solid State Cooling	Liquid Cooled	
		Solid State Power capacity	10 kW	
		Justification for New Transmitter	The transmitter manufacturer has indicated that components necessary to modify the transmitter for operation on its new channel are no longer available and it will not be able to provide re- channelization services for the transmitter. See attached letter	

Auxiliary	Other Transmitter Costs		
Transmitter	Section	Question	

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	50.0 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<br/>TransmitterOther Transmitter Cost Not ListedInformation not provided.

Primary	Existing Transmitter Information				
Transmitter	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 and Type	Manufacturer			
		Model	CD3300P3		
		Year	2001		
		Туре	Inductive Output Tube		
		IOT Power Type	Three		
		Power Capacity	60 kW		

#### **Existing Transmitter Information**

Primary	New Transmitter Costs				
Transmitter	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	57.0 kW		
		Justification for New Transmitter	The transmitter manufacturer has indicated that components necessary to modify the transmitter for operation on its new channel are no longer available and it will not be able to provide re- channelization services for the transmitter. See attached letter		

Primary	Other Transmitter Costs			
Transmitter	Section	Question	Response	
	Electrical Service	Service Entrance (3 phases 800A 208V)	No	

		1
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	300 kVA
	Rigid Conduit and Wiring	Yes
	Size	2 inches
	Length	100.0 fee
	Other Electrical Service	Yes
	Description	Electrical feed disconnec and other items necessary to meet electrical code requireme
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

Antennas Section		Question	Response
Antenna Rela	ated Expenses	Do you have antenna related expenses?	Yes

Auxiliary Antenna	Existing Antenna Information			
	Section	Question	Response	
	Existing Antenna Description	Type of change	Purchase New	
		Antenna Use	Auxiliary (Backup)	
		Description of Use	Backup to main	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is the existing antenna shared with another station or stations?	No	
		Is the existing antenna directional?	No	
		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	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)	741.0 kW	

Manufacturer	
Model	TFU- 30GTH-R O4
Year	2000

Auxiliary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Auxiliary (Backup)	
		Description of Use	Interim Facility	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	Yes	
		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 Manufacturer and Types	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/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)	808.0 kW	
		Manufacturer		

Model	SAA30-O3 G200- ES5R-29
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 20 The only viable option is to replace the antenna.

# Auxiliary Other Antenna Costs

Antenna			
	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	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

# Auxiliary Other Antenna Cost Not Listed

Antenna

Information not provided.

Primary Antenna	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?	No	
		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	Top 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)	543.0 kW	

Manufacturer	
Model	ATW25HS3- ETO-20H
Year	2010

Primary	New Antenna Costs			
Antenna	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?	No	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna Manufacturer and Types	Class	Full Power	
		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)	657.0 kW	
		Manufacturer		
			1	

Model	SAA30- O4G300- ET8R-29
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 20 The only viable option is to replace the antenna.

### Primary Other Antenna Costs Antenna Section

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	8 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?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

# Primary Other Antenna Cost Not Listed

Antenna Informatio

Information not provided.

Transmissior	Sentien	Question	Response
	Transmission Line Related Expenses	Do you have transmission line related expenses?	No

Tower	Section	Question	Response
Equipment And Rigging Costs	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 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?	Yes	
		One or more FM, AM or TV radio broadcaster(s)	Yes	
		Others Types of Users	No	
		Is tower documented for structural analysis?	Yes	
		Is tower compliant with Rev G?	Yes	
	Existing Tower Structure	Do you have a tower registration number?	Yes	
	Registration	ASR Number	1063239	
	Coordinates (NAD83 ( North American Datum	Latitude (NAD83)	35° 54' 01.0" N-	
	of 1983))	Longitude (NAD83)	076° 20' 44.0" W-	

Overall Structure Height	1640.07 feet
Support Structure Height	1574.13 feet
Ground Elevation Above Mean Sea Level (AMSL)	5.91 feet
Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	UNIVERSITY OF NORTH CAROLINA
Date Constructed	10/21/2010

#### 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
89274	WUND-FM	FM

### Primary Tower Rigging Costs

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

### Primary Other Tower Expenses Not Listed

**Tower** Information not provided.

Outside	Section	Question	Response
Professional	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	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	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	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

Outside	Other Professional Services Expenses Not Listed		
Professional	Services Costs	Description	
	Additional Legal Expenses	Legal expenses for non-catalog advice and review, including transition status reports and other miscellaneous legal needs.	

#### Outside Other Professional Services Expenses Not Listed

Other	Section	Question	Response
Expenses	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.

#### Transmitters

#### Cost Information

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-100	\$1,880,600.00	\$1,788,800.00		\$770,240.09	
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
Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$35,000.00	N/A	\$5,744.00	N/A

UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	\$1,788,000.00	\$1,700,000.00	A quote from Comark for a replacement IOT transmitter is attached. That quote is substantially higher than the catalog pricing amount for the proposed solid state transmitter. The proposed transmitter should be eligible for full reimbursement.	\$764,496.09	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A
Auxiliary Transmitter ULXTE-20	\$546,250.00	\$520,450.00		\$141,037.39	
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
				N/A	N/A

Transformer 3 phase /480v - 150 KVA	\$25,550.00	\$24,300.00	N/A	\$1,958.60	N/A
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	\$494,500.00	\$470,000.00	N/A	\$139,078.79	N/A
Sub-total	\$2,426,850.00	\$2,309,250.00	N/A	\$911,277.48	N/A
Total for all systems	\$3,318,767.70	\$3,167,471.50	N/A	\$1,265,264.55	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.	
Transformer 3 phase/480v - 300 KVA	Component Description: Amount:	50% Transformer on Quote Line 16. Included with Transmitter on Invoice. Purchase Order for All 11 sites. \$5,744.00

State Transmitter 52 - 61 kW	Component Description:	50% Main Transmitter & Installation. Installation included w /Transmitter on Form 399. Transformer separate 399 Lin item. Purchase Order for all 11 sites. \$764,496.09
Switchgear - industrial 800 amp	Information not provided.	
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.	
Transformer 3 phase/480v - 150 KVA	Component Description:	50% Transformer on Quote Line 17 Included with Transmitter on Invoice. Purchase Order is for all 11
	Amount:	sites. \$1,958.60

UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	Component Description:	50% Aux Transmitter & Installation. Installation included w /Transmitter on Form 399. Purchase Order
		Purchase Order for all 11 sites.
	Amount:	\$139,078.79

#### Antennas

#### Cost Information

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 Antenna SAA30- O4G300- ET8R-29	\$311,480.00	\$235,012.03		\$107,056.02	
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	\$15,250.00	\$14,500.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$214,112.03	See Narrative with Quote	\$107,056.02	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Auxiliary Antenna SAA30-O3- G200- ES5R-29	\$186,079.00	\$183,739.00		\$69,319.50	

Pattern scatter analysis for side mount high /med power antennas base cost)\$5,000.00N/AN/AN/ASide mount high /med power antennas base cost)\$23,150.00\$22,000.00N/AN/AN/ASide mount brackets for high power antennas (if not included in antenna base cost)\$22,000.00N/AN/AN/ASide mount brackets for high power antennas tincluded\$12,300.00\$11,700.00N/AN/AN/AElbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)\$12,300.00\$11,700.00N/AN/AN/ASweep existing antenna\$6,730.00\$6,400.00N/AN/AN/AN/A						
mount brackets for high power antennas (if not included in antenna base cost)*********************************	scatter analysis for side mount high /med power antennas (if not included in antenna	\$5,260.00	\$5,000.00	N/A	N/A	N/A
complex, single channel, at antenna input, per 6 1/8. feedline (if needed) Sweep test of existing	mount brackets for high power antennas (if not included in antenna	\$23,150.00	\$22,000.00	N/A	N/A	N/A
test of existing	complex, single channel, at antenna input, per 6 1/8. feedline (if	\$12,300.00	\$11,700.00	N/A	N/A	N/A
	test of existing	\$6,730.00	\$6,400.00	N/A	N/A	N/A

UHF - High Power, Side Mount, basic slot antenna, 808 kW input, elliptically or circularly polarized	\$138,639.00	\$138,639.00	See narrative with quote	\$69,319.50	N/A
Sub-total	\$497,559.00	\$418,751.03	N/A	\$176,375.52	N/A
Total for all systems	\$3,318,767.70	\$3,167,471.50	N/A	\$1,265,264.55	N/A

#### Components

Actual Information Description	File Name	
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	Information not provided.	
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 3. Invoice & Purchase Order are for 10 sites. \$107,056.02
Sweep test of existing antenna	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 6 1/8. feedline (if needed)	Information not provided.	
Sweep test of existing antenna	Information not provided.	
UHF - High Power, Side Mount, basic slot antenna, 808 kW input, elliptically or circularly polarized	Component Description:	50% Auxilliary Antenna included in Inv & PO Line 3. Invoice & Purchase Order are for 10 sites.
	Amount:	\$69,319.50

# Cost Transmission Line

**Information** Information not provided.

# Tower Equipment and Rigging Costs

### Cost Information

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	\$269,186.77		\$134,593.39	
Tall Tower (greater than 500')	\$210,500.00	\$269,186.77	See narrative and attached quote	\$134,593.39	N/A
Sub-total	\$210,500.00	\$269,186.77	N/A	\$134,593.39	N/A
Total for all systems	\$3,318,767.70	\$3,167,471.50	N/A	\$1,265,264.55	N/A

### Components

Actual Information		
Description	File Name	

Tall Tower (greater than 500')		
	Component Description:	50% Primary /Complex Tower Installation for Primary Antenna included in Inv & PO Line 4. Invoice & Purchase Order are for 10 sites. \$93,025.95
	Component Description:	50% Primary /Complex Tower Installation for Auxilliary Antenna included in Inv & PO Line 4. Invoice & Purchase Order are for 10 sites. \$41,567.44

# **Outside Professional Services**

### Cost Information

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 Justificatic
Outside Professional Services	\$86,275.00	\$77,750.00		\$6,751.31	
Additional Legal Expenses	\$24,500.00	\$24,500.00	Preliminary estimate for legal expenses for non-catalog advice and review including transition status reports and other miscellaneous legal needs.	\$4,213.81	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
ASR modification (prepare FCC Form 854)	\$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	\$3,500.00	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 - 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	N/A	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$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 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, Construction Permit Application	\$2,105.00	\$2,000.00	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	\$1,812.50	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$2,000.00	N/A	\$725.00	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
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A

Project management of the transition	\$18,960.00	\$18,000.00	N/A	\$0.00	N/A
Sub-total	\$86,275.00	\$77,750.00	N/A	\$6,751.31	N/A
Total for all systems	\$3,318,767.70	\$3,167,471.50	N/A	\$1,265,264.55	N/A

# Components

Actual Information Description	File Name	
Additional Legal Expenses		
	Component Description:	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 368.00/11 equal 33.45 as outlined on page 1 of
	Amount:	invoice. \$33.45
	Component Description:	Outside Professional Services Additional Legal Expenses
	Amount:	\$597.70
	Component Description:	Outside Professional Services Additional Legal Expenses
	Amount:	\$742.80

Component Description:	Outside
	Professional
	Services
	Additional Legal
	Expenses Legal
	services benefit
	entire FCC
	Repack project
	across all 11 Call
	Signs/Facility IDs,
	67.40/11 equal
	6.12 as outlined
	on page 1 of
	invoice.
Amount:	\$6.12
Component Description:	Outside
Component Description:	Outside Professional
Component Description:	0 0.00.00
Component Description:	Professional
Component Description:	Professional Services
Component Description:	Professional Services Additional Legal
Component Description:	Professional Services Additional Legal Expenses Legal
Component Description:	Professional Services Additional Legal Expenses Legal services benefit
Component Description:	Professional Services Additional Legal Expenses Legal services benefit entire FCC
Component Description:	Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project
Component Description:	Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call
Component Description:	Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs,
Component Description:	Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 402.00/11 equal
Component Description:	Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 402.00/11 equal 36.54 as outlined
Component Description:	Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 402.00/11 equal 36.54 as outlined on page 1 of
	Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 402.00/11 equal 36.54 as outlined on page 1 of invoice.

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: Amount:	Outside Professional Services Additional Legal Expenses \$67.40
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 \$6.36
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$70.00

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$105.00
Component Description:	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 1617.10/11 for 147.01 as outlined on page 1 of invoice. \$147.01
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Component Description:	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 2594.40/11 for 235.86 as outlined on page 1 of invoice.
Amount:	\$235.86

Outside 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. \$31.82
Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 765.00/11 equal 69.54 as outlined on page 1 of invoice. \$69.54
Outside Professional Services Additional Legal Expenses \$35.00

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. \$87.23
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 \$22.28
Component Description: Amount:	Outside Professional Services Additional Legal Expenses \$33.70
Component Description: Amount:	Outside Professional Services Additional Legal Expenses \$280.00

Component Description:	Outside Professional Services Additional Legal Expenses Legal services benefit 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 \$70.00
Component Description:	Outside Professional Services Additional Legal Expense Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 2059.90/11 for 187.26 as outlined on page 1 of invoice. \$187.26

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 28.63 as outlined on page 1 of invoice. \$28.63
Component Description:	Outside 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. \$315.64
Component Description: Amount:	Outside Professional Services Additional Legal Expenses \$140.00

Component Description: Amount:	Outside Professional Services Additional Legal Expenses \$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. \$15.91
Component Description:	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 10 Call Signs/Facility IDs, 3378.88/10 for 337.89 as outlined on page 1 of invoice. \$337.89

	Component Description: Amount:	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 323.00/11 equal 29.37 as outlined on page 1 of invoice. \$29.37
	Component Description: Amount:	Outside Professional Services Additional Legal Expense \$346.50
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.	
ASR modification (prepare FCC Form 854)	Information not provided.	
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.	
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.	
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	Information not provided.	

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Prepare request for Special Temporary Authorization	Information not provided.	
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.	
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, Construction Permit Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Outside Professional Services Engineering Section FCC Form 2100 Construction Permit Application - Primary (Main) \$1,812.50
Perform engineering study for new channel assignment and antenna development	Component Description:	Outside Professional Services Engineering Study New Channel Assignment Antenna Development

and coordination issues w/ other stations and wireless		
Prepare and or review reimbursement form	Information not provided.	
Project management of the transition	Component Description:	Outside Professional
		Services Projec Management
	Amount:	\$9,022.50

### **Other Expenses**

### Cost Information

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	\$97,583.70	\$92,533.70		\$36,266.85	
MVPD Notification of Channel Change	\$5,500.00	\$5,500.00	Preliminary cost 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 estimates	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$72,533.70	\$72,533.70	Invoiced amount based on competitive bid award	\$36,266.85	N/A
DTV Medical Facility Notification	\$11,550.00	\$6,500.00	Preliminary cost estimate for service	N/A	N/A
Sub-total	\$97,583.70	\$92,533.70	N/A	\$36,266.85	N/A
Total for all systems	\$3,318,767.70	\$3,167,471.50	N/A	\$1,265,264.55	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.	
Disposal Costs (for equipment and other waste, net of any salvage value)	Component Description:	50 % Aux Transmitter Removal. Purchase Order is
	Amount:	for all 11 sites. \$13,782.60
	Component Description:	50% Main Transmitter Removal. Purchase Order is for all 11 sites.
	Amount:	\$22,484.25
DTV Medical Facility Notification	Information not provided.	

Cost Information	Grand Total				
		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$3,318,767.70	\$3,167,471.50	\$1,265,264.55	

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

Certification	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.	
		<ol> <li>The Authorized 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.</li> <li>The above-named entity.</li> <li>The above-named entity acknowledges that all certifications and attached documentation are considered material</li> </ol>	
		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).
- 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.	
an au name	I declare, under penalty of perjury, that I am an authorized representative of the above- named applicant for the Authorization(s) specified above.	

Certification	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).	
		<ol> <li>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.</li> </ol>	
		2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.	
		3. 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).
- 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.

enti that pay mus refu	e above-named ty acknowledges overpayments or ments in error st be promptly inded to the mmission.		
enti is ir with rule and req whi a pi obta pay	e above-named ty certifies that it a full compliance a all statutes, s, regulations governmental uirements for ch compliance is rerequisite for aining the ments herein uested.		
I declare, under penalty of perjury, that I am an authorized representative of the above- named applicant for the Authorization(s) specified above.		Robert Levin Director of Finance and Administration	

#### Attachments

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