



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **46728** | Service: **DTV** | Call **WCAX-TV** | Channel: **20 (UHF)** |
ID: | Sign:
File **0000028424**
Number:
FRN: **0018223693** | Date **05/06**
Submitted: **/2019**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
GRAY TELEVISION LICENSEE, LLC Doing Business As: GRAY TELEVISION LICENSEE, LLC	WCAX PO Box 4508 ATLANTA, GA 30319 United States	+1 (404) 504-9828	robert.folliard@gray.tv	Limited Liability Company

Reimbursement Contact Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Samuel Harington <i>Widely</i>	4031 University Dr Ste. 100 Fairfax, VA 22030 United States	+1 (339) 222-8107	sam.hariton@widely.com

**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.	Yes
Briefly describe transition plan	WCAX-TV will transition from Channel 22 to the newly assigned Channel 20. This will impact WPTZ which shares the tower and antenna

Transmitters

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

**Primary
Transmitter**

Existing Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	PWR60D2
	Year	2006
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	60 kW

Primary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTED-60
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	38.4 kW
	Justification for New Transmitter	There is no room available to perform a retune of the existing IOT transmitter.

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	Yes
	Description	The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	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 leasehold 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
Transmitter**

Other Transmitter Cost Not Listed

Information not provided.

**Interim
Transmitter**

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-30
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	19.2 kW
	Justification for New Transmitter	Needed to broadcast during transition period because the existing IOT must be removed to allow for the installation of the interim transmitter.

**Interim
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	Yes
	Description	The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	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 leasehold 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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	Yes

**Interim
Transmitter**

Other Transmitter Cost Not Listed

Name	Description
UHF Inside RF System	UHF Inside RF System including switching

Antennas

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

**Primary
Antenna****Existing Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	Retune Existing
	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?	Yes
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	Yes
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Bottom
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	2
	Number of Panels	40
	Design power capacity in use	100.0 %
	Lower Limit	470.00 MHz

Upper Limit	710.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	443.0 kW
Manufacturer	Dielectric
Model	TUP-04 /C4SP-10 /40H-2-R
Year	2006

**Facility ID's and Call Signs of
all stations with whom the
antenna is shared.**

Facility ID	Call Sign
57476	WPTZ

**Primary
Antenna**

Adjustment to Existing Antenna

Section	Question	Response
Sweep Test of Existing Antenna	Do you need a sweep test of existing antenna?	Yes

**Primary
Antenna**

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	3
	Frequencies of channels supported	Upper and lower frequency
	Frequency	470.0 MHz - 698.0 MHz

Primary
Antenna

Other Antenna Cost Not Listed

Name	Description
Lower Power Line Antenna Sweep	Antenna sweep for low power line
Lower Power Elbow Complex	3 1/8" line feed, broadband

Auxiliary
Antenna

Add Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Retune Existing
	Antenna Use	Auxiliary (Backup)
	Description of Use	Backup
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this antenna currently shared with any other stations?	Yes
	Is this antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	Yes
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	2

Number of Panels	8
Design power capacity in use	100.0 %
Lower Limit	470.00 MHz
Upper Limit	710.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	76.6 kW
Manufacturer	Dielectric
Model	TUP-04-2 /8U-1-R
Year	2006

**Facility ID's and Call Signs of
all stations with whom the
antenna is shared.**

Facility ID	Call Sign
57476	WPTZ

Auxiliary Antenna

Adjustment to Existing Antenna

Section	Question	Response
Sweep Test of Existing Antenna	Do you need a sweep test of existing antenna?	Yes

Auxiliary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	3
	Frequencies of channels supported	Upper and lower frequency

	Frequency	470.0 MHz - 698.0 MHz
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**Auxiliary
Antenna**

Other Antenna Cost Not Listed
Information not provided.

Transmission Line

Section	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

Auxiliary Transmission Line

Add Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Backup
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmission currently shared with any other stations?	Yes
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	4 1/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	500 feet per run

Facility ID's and Call Signs of all stations with whom the transmission line is shared.

Facility ID	Call Sign
57476	WPTZ

Auxiliary **New Transmission Line**
Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Auxiliary (Backup)
	Description of Use	Backup
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	4 1/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	500 feet per run
	Justification for New Transmission Line	Line sweep determined that flange summing occurs in band for repacked channel 20 eliminating chances to reuse any of the existing lines

Auxiliary **Other Transmission Line Expenses Not Listed**
Transmission Line

Information not provided.

**Primary
Transmission Line**

Existing 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	N/A
	Is the existing transmission line shared with another station or stations?	Yes
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	450 feet per run

Facility ID's and Call Signs of all stations with whom the transmission line is shared.

Facility ID	Call Sign
57476	WPTZ

Primary **New Transmission Line**
Transmission Line **Section**

Section		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
		Type	Rigid
		Diameter	6 1/8 inches
		Other Diameter	N/A
		Segment Length	Broadband
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	450 feet per run
		Justification for New Transmission Line	Line sweep determined that flange summing occurs in band for repacked channel 20 eliminating chances to reuse any of the existing lines

Primary **Other Transmission Line Expenses Not Listed**
Transmission Line **Information not provided.**

Primary **Add Transmission Line**
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	N/A
	Is this transmission currently shared with any other stations?	Yes
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	3 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	450 feet per run

Facility ID's and Call Signs of all stations with whom the transmission line is shared.

Facility ID	Call Sign
57476	WPTZ

Primary
Transmission Line

New Transmission Line

Section	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
	Type	Rigid
	Diameter	3 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	450 feet per run
	Justification for New Transmission Line	Line sweep determined that flange summing occurs in band for repacked channel 20 eliminating chances to reuse any of the existing lines

Primary
Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Sweep Existing Transmission Line	Sweep test of existing transmission line

Tower Equipment And Rigging Costs

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

Primary Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	Terrain Constrained
	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	Yes
	Is tower documented for structural analysis?	No
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	No
	ASR Number	
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	44° 31' 32.19" N-
	Longitude (NAD83)	072° 48' 56.4" W-
	Overall Structure Height	185.00 feet
	Support Structure Height	130.00 feet

Ground Elevation Above Mean Sea Level (AMSL)	4166.67 feet
Structure Type	MTOWER - Monopole
Tower Owner	WCAX-TV
Date Constructed	01/01/2005

**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
57476	WPTZ	DTV

Other Types of Users

Users
WVPS FM
WEZF FM

Primary Tower

Tower Modification Costs

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	Study needed for undocumented /poorly documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	Minor Reinforcements needed

Primary Tower

Tower Rigging Costs

Section	Question	Response
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Tower Rigging Costs	Complex Tower	Terrain constrained
Helicopter Services Required	Are helicopter services required?	Yes

**Primary
Tower**

Other Tower Expenses Not Listed

Name	Description
Tower structural analysis	Structural analysis of existing tower
Corrosion analysis	Corrosion analysis
Move Equipment	Replace transmission lines

**Outside
Professional**

Section	Question	Response
Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	900
	Explanation	Strategic Support
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	No
	Quantity	N/A
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
Attorney and Other Outside Consulting Services	Prepare and file Form FCC Construction Permit Application	Yes
	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	Yes
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	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	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Additional Repack Legal Services Not Otherwise Specified in Form 399	Other Attorney services

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	No
	Is Remediation needed?	No
Facility Expenses	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
Permit and Filing Costs	Local Zoning	No
	Non-zoning permits	Yes
	BLM or NFS Coordination	Yes
	FCC Construction Permit Minor Change	Yes
	FCC License to Cover Application	Yes
	FCC Special Temporary Authority Application	Yes
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?	Yes
	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
Taxes	State and Local Taxes

Cost Information

Transmitters

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmitter ULXTE-30	\$974,728.00	\$845,852.00		\$557,453.54	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$562,624.00	N/A	\$526,898.54	N/A
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	\$73,228.00	\$73,228.00	See quote, amended to be added to this document per FCC request dated 8/14 /17 (complete response narrative attached as well). The physical build for the interim /permanent transmitter solution drove the cost of quote.	\$30,555.00	N/A
UHF inside RF system including switching	\$147,500.00	\$140,000.00	N/A	N/A	N/A

UHF Inside RF System	\$70,000.00	\$70,000.00	N/A	N/A	N/A
Primary Transmitter ULXTED-60	\$1,498,000.00	\$1,190,665.00		\$984,944.19	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,165,665.00	N/A	\$984,944.19	N/A
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	\$25,000.00	\$25,000.00	N/A	N/A	N/A
Sub-total	\$2,472,728.00	\$2,036,517.00	N/A	\$1,542,397.73	N/A
Total for all systems	\$5,167,565.25	\$3,750,322.15	N/A	\$2,137,773.14	N/A

Components

Actual Information

Description

File Name

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	Component Description:	ULXTE-30 Transmitter
	Amount:	\$182,400.87
	Component Description:	ULXTE-30 Transmitter
	Amount:	\$344,497.67
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	Component Description:	materials & installation of the electrical service to the interim UHF transmitter
	Amount:	\$14,500.00
	Component Description:	Labor and material
	Amount:	\$16,055.00
UHF inside RF system including switching	Information not provided.	
UHF Inside RF System	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	Component Description:	ULXTED-60 Transmitter
	Amount:	\$984,944.19
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	Information not provided.	

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 Cost Justification
Primary Antenna TUP-04 /C4SP-10 /40H-2-R	\$676,536.25	\$401,373.50		\$273,170.40	
Lower Power Elbow Complex	<i>\$18,506.25</i>	\$18,506.25	DTV Pros Quote JEHQ1327-03	\$10,178.43	N/A
UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, horizontally polarized	\$547,000.00	\$0.00	Ghost antenna inserted by form, cannot remove. This is a bug.	\$0.00	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$3,520.00	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$349,433.25	Catalog cost listed as 80k per channel; GatesAir Quote Q-70240	\$244,603.27	N/A

Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$20,634.00	DTV Pros Quote JEHQ1327-03	\$11,348.70	N/A
Lower Power Line Antenna Sweep	\$6,400.00	\$6,400.00	N/A	\$3,520.00	N/A
Auxiliary Antenna TUP-04-2 /8U-1-R	\$648,880.00	\$260,350.00		\$11,192.50	
UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, horizontally polarized	\$547,000.00	\$0.00	Ghost antenna, cannot be removed. This is a bug.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$3,520.00	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$240,000.00	Catalog cost listed as 80k per channel	N/A	N/A
Elbow complex, broadband, at antenna input, per 4 1/16. feedline (if needed)	\$10,950.00	\$13,950.00	DTV Pros Quote JEHQ1327-03	\$7,672.50	N/A

Sub-total	\$1,325,416.25	\$661,723.50	N/A	\$284,362.90	N/A
Total for all systems	\$5,167,565.25	\$3,750,322.15	N/A	\$2,137,773.14	N/A

Components

Actual Information	
Description	File Name
Lower Power Elbow Complex	Component Description:
	Rigid Transmission Line Copper
	Amount:
	\$5,551.87
	Component Description:
	Rigid Transmission Line - Copper T/L 3-50 234.00 MF EX CONN
	Amount:
	\$4,626.56
UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, horizontally polarized	Information not provided.
Sweep test of existing antenna	Component Description:
	WCAX Sweep Test New Primary Antenna System
	Amount:
	\$1,600.00
	Component Description:
	WCAX Sweep Test New Primary Antenna System
	Amount:
	\$1,920.00

New combiner, cost per channel (without antenna)	Component Description: Combiner Amount: \$244,603.27
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	Component Description: WCAX Elbow Complex New Primary Antenna Amount: \$6,190.20 Component Description: WCAX Elbow Complex New Primary Antenna Amount: \$5,158.50
Lower Power Line Antenna Sweep	Component Description: WCAX Sweep Test Lower Power New Primary Antenna Amount: \$1,600.00 Component Description: WCAX Sweep Test Lower Power New Primary Antenna Amount: \$1,920.00
UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, horizontally polarized	Information not provided.

Sweep test of existing antenna	<div> <div> Component Description: WCAX Sweep Test New Auxiliary Antenna </div> <div> Amount: \$1,600.00 </div> </div> <div> <div> Component Description: WCAX Sweep Test New Auxiliary Antenna </div> <div> Amount: \$1,920.00 </div> </div>
New combiner, cost per channel (without antenna)	Information not provided.
Elbow complex, broadband, at antenna input, per 4 1/16. feedline (if needed)	<div> <div> Component Description: WCAX Elbow Complex New Auxiliary Antenna </div> <div> Amount: \$4,185.00 </div> </div> <div> <div> Component Description: WCAX Elbow Complex New Auxiliary Antenna </div> <div> Amount: \$3,487.50 </div> </div>

Cost Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	\$104,400.00	\$148,315.20		\$81,573.35	
Rigid Transmission Line - copper, 6 1/8" broadband	\$104,400.00	\$148,315.20	DTV Pros Quote JEHQ1327-03	\$81,573.35	N/A
Primary Transmission Line	\$57,500.00	\$75,480.30		\$39,589.16	
Rigid Transmission Line - copper, 3 1/8" broadband	\$54,000.00	\$71,980.30	DTV Pros Quote JEHQ1327-03	\$39,589.16	N/A
Sweep Existing Transmission Line	<i>\$3,500.00</i>	\$3,500.00	See invoice	\$0.00	N/A
Auxiliary Transmission Line	\$81,500.00	\$94,255.15		\$51,840.32	
Rigid Transmission Line - copper, 4 1/16" broadband	\$81,500.00	\$94,255.15	DTV Pros Quote JEHQ1327-03	\$51,840.32	N/A
Sub-total	\$243,400.00	\$318,050.65	N/A	\$173,002.83	N/A
Total for all systems	\$5,167,565.25	\$3,750,322.15	N/A	\$2,137,773.14	N/A

Components

Actual Information		
Description	File Name	
Rigid Transmission Line - copper, 6 1/8" broadband	Component Description:	WCAX New Primary Transmission Line
	Amount:	\$44,494.56
	Component Description:	WCAX New Primary Transmission Line
	Amount:	\$37,078.79
Rigid Transmission Line - copper, 3 1/8" broadband	Component Description:	WCAX Lower Power New Primary Transmission Line
	Amount:	\$17,995.07
	Component Description:	WCAX Lower Power New Primary Transmission Line
	Amount:	\$21,594.09
Sweep Existing Transmission Line	Component Description:	Sweep test of all transmission lines
	Amount:	\$3,490.25

Rigid Transmission Line - copper, 4 1/16" broadband	Component Description:	WCAX New Auxiliary Transmission Line
	Amount:	\$28,276.54
	Component Description:	WCAX New Auxiliary Transmission Line
	Amount:	\$23,563.78

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 MTOWER	\$655,940.00	\$292,640.00		\$54,853.75	
Corrosion analysis	<i>\$1,500.00</i>	\$1,500.00	See invoice	\$1,500.00	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$12,000.00	N/A	\$5,750.00	N/A
Move Equipment	<i>\$0.00</i>	\$0.00	N/A	N/A	N/A
Tower Helicopter Lift	<i>\$46,640.00</i>	\$46,640.00	May require helicopter to delivery equipment and transmission line to transmitter site.	N/A	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$150,000.00	N/A	N/A	N/A

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$80,000.00	N/A	\$45,103.75	N/A
Tower structural analysis	\$2,500.00	\$2,500.00	See invoice	\$2,500.00	N/A
Sub-total	\$655,940.00	\$292,640.00	N/A	\$54,853.75	N/A
Total for all systems	\$5,167,565.25	\$3,750,322.15	N/A	\$2,137,773.14	N/A

Components

Actual Information Description	File Name
Corrosion analysis	<p>Component Description: Level 1 Corrosion Risk Analysis</p> <p>Amount: \$750.00</p> <p>Component Description: Level 1 Corrosion Risk Analysis</p> <p>Amount: \$750.00</p>
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	<p>Component Description: Tower Mapping</p> <p>Amount: \$2,875.00</p> <p>Component Description: Tower Mapping</p> <p>Amount: \$2,875.00</p>
Move Equipment	Information not provided.
Tower Helicopter Lift	Information not provided.

Minor tower reinforcement /modifications	Information not provided.	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Component Description: Amount:	Tower Equipment and Rigging \$45,103.75
Tower structural analysis	Component Description: Amount: Component Description: Amount:	Engineering Evaluation \$1,250.00 Engineering Evaluation \$1,250.00

Cost Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$214,909.00	\$194,334.00		\$80,311.37	
Additional Repack Legal Services Not Otherwise Specified in Form 399	<i>\$4,584.00</i>	\$4,584.00	Please see the attached invoice from MMCC # GTG012919	\$1,527.99	N/A
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	\$10,692.50	N/A
Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	\$10,520.00	\$0.00	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	\$1,250.00	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	\$0.00	N/A
Project management of the transition	\$142,200.00	\$135,000.00	N/A	\$63,670.05	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A

Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$2,983.33	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$187.50	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	\$0.00	N/A
Sub-total	\$214,909.00	\$194,334.00	N/A	\$80,311.37	N/A
Total for all systems	\$5,167,565.25	\$3,750,322.15	N/A	\$2,137,773.14	N/A

Components

Actual Information
Description

File Name

Additional Repack Legal Services Not Otherwise Specified in Form 399	Component Description: Gravel & Shea PC Amount: \$1,527.99
RF Exposure Measurements	Component Description: Consultation on regulatory compliance at base station. Amount: \$2,100.00 Component Description: Provide 2 RF Specialists from GTI to attend the WCAX Mt. Mansfield tower site & Perform RF measurements to identify OET 65 issues. Amount: \$5,355.00 Component Description: WCAX-580-Field Eng RF measurements Amount: \$3,237.50
Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	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	<div> <div> Component Description: Amount: </div> <div> Email re: lifting of anti-collusion rule, time of FCC letter; emails re: FCC letter, next steps; Email re: WPTZ \$600.00 </div> </div> <div> <div> Component Description: Amount: </div> <div> Emails, review draft 2100, send draft to Gray. File 2100. \$650.00 </div> </div>
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.
Project management of the transition	<div> <div> Component Description: Amount: </div> <div> Project Management \$2,515.60 </div> </div> <div> <div> Component Description: Amount: </div> <div> Project Management \$1,891.25 </div> </div>

Component Description:	Project Management
Amount:	\$2,158.05

Component Description:	Project Management
Amount:	\$2,128.55

Component Description:	Project Management
Amount:	\$5,251.90

Component Description:	Project Management
Amount:	\$7,808.35

Component Description:	Project Management
Amount:	\$3,913.15

Component Description:	Project Management
Amount:	\$1,869.35

Component Description:	Project management
Amount:	\$2,330.15

Component Description:	Project Mgt
Amount:	\$802.25

Component Description:	Project management
Amount:	\$2,951.90

Component Description:	Project Mgt
Amount:	\$718.30

Component Description:	Project Management
Amount:	\$2,624.35

Component Description:	Project Mgt
Amount:	\$28.20

Component Description:	Transition Related Project Management Costs
Amount:	\$3,300.00

Component Description:	Project Mgt
Amount:	\$3,763.95

Component Description:	Project management
Amount:	\$1,328.55

Component Description:	Project Management
Amount:	\$2,442.90

Component Description:	Project Management
Amount:	\$2,111.25

Component Description:	Project Management
Amount:	\$1,912.75

	Component Description: Amount:	Project Mgt \$2,507.30
	Component Description: Amount:	Project Management \$2,574.45
	Component Description: Amount:	Project Mgt \$2,381.30
	Component Description: Amount:	Project Management \$2,498.65
	Component Description: Amount:	Project Management \$1,857.60
Prepare and or review reimbursement form	Information not provided.	
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	

Perform engineering study for new channel assignment and antenna development	<table> <tr> <td data-bbox="703 174 1018 210">Component Description:</td><td data-bbox="1147 174 1374 286">Email duTreil re issues in repacking application</td></tr> <tr> <td data-bbox="703 297 818 327">Amount:</td><td data-bbox="1147 297 1246 327">\$200.00</td></tr> <tr> <td data-bbox="703 434 1018 470">Component Description:</td><td data-bbox="1147 434 1366 546">Engineering Study for New Channel Assignment</td></tr> <tr> <td data-bbox="703 557 818 586">Amount:</td><td data-bbox="1147 557 1268 586">\$1,283.33</td></tr> <tr> <td data-bbox="703 694 1018 730">Component Description:</td><td data-bbox="1147 694 1358 846">Perform engineering study for new channel assignment</td></tr> <tr> <td data-bbox="703 857 818 887">Amount:</td><td data-bbox="1147 857 1268 887">\$1,500.00</td></tr> </table>	Component Description:	Email duTreil re issues in repacking application	Amount:	\$200.00	Component Description:	Engineering Study for New Channel Assignment	Amount:	\$1,283.33	Component Description:	Perform engineering study for new channel assignment	Amount:	\$1,500.00
Component Description:	Email duTreil re issues in repacking application												
Amount:	\$200.00												
Component Description:	Engineering Study for New Channel Assignment												
Amount:	\$1,283.33												
Component Description:	Perform engineering study for new channel assignment												
Amount:	\$1,500.00												
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	<table> <tr> <td data-bbox="703 1025 1018 1061">Component Description:</td><td data-bbox="1147 1025 1370 1216">review engineering portions and related exhibits of "90 day" FCC CP application</td></tr> <tr> <td data-bbox="703 1227 818 1256">Amount:</td><td data-bbox="1147 1227 1246 1256">\$187.50</td></tr> </table>	Component Description:	review engineering portions and related exhibits of "90 day" FCC CP application	Amount:	\$187.50								
Component Description:	review engineering portions and related exhibits of "90 day" FCC CP application												
Amount:	\$187.50												
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	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 Cost Justification
Other Expenses	\$255,172.00	\$247,057.00		\$2,844.56	
Taxes	<i>\$171,482.00</i>	\$171,482.00	N/A	N/A	N/A
MVPD Notification of Channel Change	<i>\$1,000.00</i>	\$1,000.00	N/A	N/A	N/A
Equipment Storage	<i>\$12,000.00</i>	\$12,000.00	N/A	\$2,000.00	N/A
Equipment Delivery and Handling Charges	<i>\$10,000.00</i>	\$10,000.00	N/A	\$844.56	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
BLM or NFS Coordination	<i>\$10,000.00</i>	\$10,000.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$3,490.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A

Develop and air announcement of upcoming channel change	\$10,000.00	\$10,000.00	N/A	\$0.00	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
Non-zoning permits	\$2,500.00	\$2,500.00	N/A	N/A	N/A
Sub-total	\$255,172.00	\$247,057.00	N/A	\$2,844.56	N/A
Total for all systems	\$5,167,565.25	\$3,750,322.15	N/A	\$2,137,773.14	N/A

Components

Actual Information	
Description	File Name
Taxes	Information not provided.
MVPD Notification of Channel Change	Information not provided.

Equipment Storage	Component Description: Amount:	Equipment in warehouse, storage from 1/19/19-2/15/19 4 weeks \$400.00
	Component Description: Amount:	Equipment in warehouse, storage \$400.00
	Component Description: Amount:	Equipment in warehouse, storage \$400.00
	Component Description: Amount:	Equipment in warehouse, storage \$400.00
	Component Description: Amount:	Equipment in warehouse, storage \$400.00
Equipment Delivery and Handling Charges	Component Description: Amount:	Moving Services, Delivery \$844.56
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
BLM or NFS Coordination	Information not provided.	
DTV Medical Facility Notification	Information not provided.	

FCC Filing Fees - Form 2100 minor change CP application	Information not provided.
Develop and air announcement of upcoming channel change	<div> <div> Component Description: </div> <div> Please deny this component </div> </div> <div> Amount: </div> <div> N/A </div>
FCC Filing Fees - Form 2100 license to cover application	Information not provided.
FCC Filing Fees - Special Temporary Authorization request	Information not provided.
Non-zoning permits	Information not provided.

**Cost
Information**

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$5,167,565.25	\$3,750,322.15	\$2,137,773.14

Reimbursement Status

Question	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	<p>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.</p>	
		<ol style="list-style-type: none"> 1. 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. 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.

<p>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.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Robert J. Folliard , III . <i>Assistant Secretary</i></p> <p>05/06/2019</p>

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	<p>WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS 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 AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).</p>	
		<ol style="list-style-type: none"> 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. 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) .
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.

<p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>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.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Robert J. Folliard , III . <i>Assistant Secretary</i></p> <p>05/06/2019</p>

Attachments