

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility 46728 Service: DTV Call WCAX-TV Channel: 20 (UHF)

Sign:

File **0000028424**

Number:

ID:

FRN: **0018223693** Date **09/19**

Submitted: /2019

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
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 Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email	
[Confidential]				

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Samuel Harington Widelity	4031 University Dr Ste. 100 Fairfax, VA 22030 United States	+1 (339) 222- 8107	sam.hariton@widelity. 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	
Manufacturer and Type	Model	PWR60D2
	Year	2006
	Туре	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
	Туре	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
Improvement	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 Transmittor

Other Transmitter Cost Not Listed

Transmitter 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

No
No
No
N/A
No

	Size	N/A
	Length	N/A
	Other Electrical Service	Yes
	Description	The new transmitter require reconfigura of the electrical service on site. The electrical w cost has be estimated based on verbal guidance from local electrical electrical electrical contractors
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	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
Improvement	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	Class	Full Power
Manufacturer and Type	Mounting	Top Mount
	Antenna position in stack	Bottom
	Polarization	Horizontal
	Туре	Broadband Panel
	Number of Stations Supported	2
	Number of Panels	40
	Design power capacity in use	100.0 %
	Lower Limit	470.00 MH

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
	Туре	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
Site Survey and Coverage Mapping	GatesAir Site Survey and Coverage Mapping
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	Class	Full Power
Manufacturer and Type	Mounting	Top Mount
	Antenna position in stack	Тор
	Polarization	Horizontal
	Туре	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
	Туре	New
	Number of channels supported	3

Frequencies of channels supported	Upper and lower frequency
Frequency	470.0 MHz - 698.0 MHz

Auxiliary Antenna

Other Antenna Cost Not Listed

Information not provided.

Transmission ^{Seffien}	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

Add Transmission Line

Auxiliary Transmission

n 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	
	Туре	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

New Transmission Line

Auxiliary Transmissio

on Line Settion	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
	Туре	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 to inetion not provided.

Existing Transmission Line

Primary Transmission

n 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	
	Туре	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

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

Facility ID	Call Sign
57476	WPTZ

New Transmission Line

Primary
Transmissio

on 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
	Туре	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 loinetion not provided.

Add Transmission Line

Primary Transmission

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	Manufacturer	
Line Manufacturer and Type	Туре	Rigid
	Diameter	3 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband

Other Segment Length

Number of parallel runs

Length

N/A

450 feet per run

1

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

Facility ID	Call Sign
57476	WPTZ

New Transmission Line

Primary
Transmissio

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
	Туре	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

Primary Other Transmission Line Expenses Not Listed

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

lines

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	Do you have a tower registration number?	No
Registration	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	
WEZF FM	
WVPS 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

Response

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

Primary Tower

Other Tower Expenses Not Listed

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

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	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	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

Other Professional Services Expenses Not Listed

al :	Services Costs	Description
	Additional Repack Legal Services Not Otherwise Specified in Form 399	Other Attorney services
	Outside Professional Services - Engineering Consulting Services	Outside Professional Services-Engineering Consulting 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		\$574,953.54	
UHF Inside RF System	\$70,000.00	\$70,000.00	N/A	N/A	N/A
UHF inside RF system including switching	\$147,500.00	\$140,000.00	N/A	N/A	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.	\$48,055.00	N/A

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$562,624.00	N/A	\$526,898.54	N/A
Primary Transmitter ULXTED-60	\$1,553,073.00	\$1,245,738.00		\$1,002,895.02	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,165,665.00	N/A	\$986,742.02	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.	\$80,073.00	\$80,073.00	Justifying Quote - WCAX Delta Main Transmitter - Electrical	\$16,153.00	N/A
Sub-total	\$2,527,801.00	\$2,091,590.00	N/A	\$1,577,848.56	N/A
Total for all systems	\$4,144,063.75	\$3,820,820.65	N/A	\$2,314,925.60	N/A

Components

Actual Information Description	File Name
UHF Inside RF System	Information not provided.
UHF inside RF system including switching	Information not provided.

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:

Amount:

Labor and Material

\$7,500.00

Component Description:

Amount:

Labor and Material

\$10,000.00

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 - Liquid Cooled Solid State Transmitter 14.2 - 20 kW

Component Description:

ULXTE-30 Transmitter

Amount: \$344,497.67

Component Description: ULXTE-30

Transmitter

Amount: \$182,400.87

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW

Component Description: ULXTED-60

Transmitter

Amount: \$984,944.19

Component Description: This is distilled

water used for the new transmitter.

Amount: \$96.36

Component Description: BrightEye 42 HD

/SD/ASI
Distribution
Amplifier

Amount: \$1,701.47

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 & Labor

- Electrical Gear

Package **Amount:** \$16,153.00

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
Primary Antenna TUP-04 /C4SP-10 /40H-2-R	\$144,111.75	\$415,949.00		\$300,730.96	
Lower Power Elbow Complex	\$18,506.25	\$18,506.25	DTV Pros Quote JEHQ1327- 03	\$14,804.99	N/A
Lower Power Line Antenna Sweep	\$6,400.00	\$6,400.00	N/A	\$5,120.00	N/A
Site Survey and Coverage Mapping	\$14,575.50	\$14,575.50	Please see the attached invoice from GatesAir #US0324201	\$14,575.50	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	\$16,507.20	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
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,120.00	N/A

Auxiliary Antenna TUP-04-2 /8U-1-R	\$101,880.00	\$260,350.00		\$16,280.00	
Elbow complex, broadband, at antenna input, per 4 1/16. feedline (if needed)	\$10,950.00	\$13,950.00	DTV Pros Quote JEHQ1327- 03	\$11,160.00	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
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,120.00	N/A
Sub-total	\$245,991.75	\$676,299.00	N/A	\$317,010.96	N/A
Total for all systems	\$4,144,063.75	\$3,820,820.65	N/A	\$2,314,925.60	N/A

Components

Actual Information	
Description	File Name

Lower Power Elbow		
Complex	Component Description:	3" 50 Ohm
		Transmission Line
		System
	Amount:	\$4,626.56
	O	D: : I
	Component Description:	Rigid Transmission Line
		- Copper T/L 3-50
		234.00 MF EX
		CONN
	Amount:	\$4,626.56
	Component Description:	Rigid
		Transmission Line
		Copper
	Amount:	\$5,551.87
Lower Power Line Antenna		
Sweep	Component Description:	WCAX-210-Sweep
		test New Low
		Power Primary
		Antenna System
	Amount:	\$1,600.00
	Component Description	WCAX Sweep
	Component Description:	Test Lower Power
		New Primary
		Antenna
	Amount:	\$1,920.00
	Component Description:	WCAX Sweep
		Test Lower Power
		New Primary Antenna
	Amount:	\$1,600.00
Site Survey and Coverage		
Mapping	Component Description:	Field Service, TV
	Amount:	\$14,575.50

Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	Component Description:	WCAX-210-Elbow
	Amount:	complex New Primary Antenna \$5,158.50
	Component Description:	WCAX Elbow Complex New
	Amount:	Primary Antenna \$5,158.50
	Component Description:	WCAX Elbow Complex New Primary Antenna
	Amount:	\$6,190.20
New combiner, cost per channel (without antenna)	Component Description: Amount:	Combiner \$244,603.27
Sweep test of existing		
antenna	Component Description:	WCAX-210-Sweep test New Primary
	Amount:	Antenna System \$1,600.00
	Component Description:	WCAX Sweep Test New Primary
	Amount:	Antenna System \$1,920.00
	Component Description:	WCAX Sweep Test New Primary
	Amount:	Antenna System \$1,600.00

at antenna input, per 4 1/16. feedline (if needed)	Component Description: Amount:	WCAX-250-Elbow complex New Auxiliary Antenna \$3,487.50
	Component Description:	WCAX Elbow Complex New
	Amount:	Auxiliary Antenna \$4,185.00
	Component Description:	WCAX Elbow Complex New
	Amount:	Auxiliary Antenna \$3,487.50
New combiner, cost per channel (without antenna)	Information not provided.	
Sweep test of existing		
antenna	Component Description:	WCAX-250-Sweep test New Auxiliary Antenna
	Amount:	\$1,600.00
	Component Description:	WCAX Sweep Test New Auxiliary
	Amount:	Antenna \$1,920.00
	Component Description:	WCAX Sweep
		Test New Auxiliary Antenna

Cost Information

Transmission Line

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost
Primary Transmission Line	\$104,400.00	\$148,315.20		\$118,652.14	
Rigid Transmission Line - copper, 6 1 /8" broadband	\$104,400.00	\$148,315.20	DTV Pros Quote JEHQ1327- 03	\$118,652.14	N/A
Primary Transmission Line	\$57,500.00	\$75,480.30		\$57,584.23	
Sweep Existing Transmission Line	\$3,500.00	\$3,500.00	See invoice	\$0.00	N/A
Rigid Transmission Line - copper, 3 1 /8" broadband	\$54,000.00	\$71,980.30	DTV Pros Quote JEHQ1327- 03	\$57,584.23	N/A
Auxiliary Transmission Line	\$81,500.00	\$94,255.15		\$75,404.10	
Rigid Transmission Line - copper, 4 1 /16" broadband	\$81,500.00	\$94,255.15	DTV Pros Quote JEHQ1327- 03	\$75,404.10	N/A
Sub-total	\$243,400.00	\$318,050.65	N/A	\$251,640.47	N/A
Total for all systems	\$4,144,063.75	\$3,820,820.65	N/A	\$2,314,925.60	N/A

Actual Information Description	File Name	
Rigid Transmission Line - copper, 6 1/8" broadband	Component Description: Amount:	WCAX New Primary Transmission Line \$44,494.56
	Component Description: Amount:	WCAX-310-New Primary Transmission Line \$37,078.79
	Component Description: Amount:	WCAX New Primary Transmission Line \$37,078.79
Sweep Existing Transmission Line	Component Description: Amount:	Sweep test of all transmission lines \$3,490.25

Rigid Transmission Line -		
copper, 3 1/8" broadband	Component Description:	1. WCAX-310-
	· ·	Lower power New
		Primary
		Transmission Line
	Amount:	\$17,995.07
		, ,
	Component Description:	WCAX Lower
	Component Description.	Power New
		Primary
		Transmission Line
	Amount:	\$21,594.09
	Amount.	ψ ∠ 1, 034.03
	Component Description:	WCAX Lower
	Component Description.	Power New
		Primary
		Transmission Line
	Amount:	\$17,995.07
	Amount.	ψ17,993.07
Rigid Transmission Line -		
4.4/4.00.1	Component Description:	WCAX-350-New
copper, 4 1/16" broadband	Component Becomption.	
copper, 4 1/16" broadband	Component Boothpaten.	Auxiliary
copper, 4 1/16" broadband	Component Booshphon.	Auxiliary Transmission Line
copper, 4 1/16" broadband	Amount:	
copper, 4 1/16" broadband		Transmission Line
copper, 4 1/16" broadband		Transmission Line
copper, 4 1/16" broadband	Amount:	Transmission Line \$23,563.78 WCAX New Auxiliary
copper, 4 1/16" broadband	Amount:	Transmission Line \$23,563.78 WCAX New
copper, 4 1/16" broadband	Amount:	Transmission Line \$23,563.78 WCAX New Auxiliary
copper, 4 1/16" broadband	Amount: Component Description: Amount:	Transmission Line \$23,563.78 WCAX New Auxiliary Transmission Line \$23,563.78
copper, 4 1/16" broadband	Amount: Component Description:	Transmission Line \$23,563.78 WCAX New Auxiliary Transmission Line \$23,563.78
copper, 4 1/16" broadband	Amount: Component Description: Amount:	Transmission Line \$23,563.78 WCAX New Auxiliary Transmission Line \$23,563.78 WCAX New Auxiliary
copper, 4 1/16" broadband	Amount: Component Description: Amount:	Transmission Line \$23,563.78 WCAX New Auxiliary Transmission Line \$23,563.78 WCAX New

Cost Information

Tower Equipment and Rigging Costs

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	\$1,500.00	\$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	\$0.00	\$0.00	N/A	N/A	N/A
Tower Helicopter Lift	\$46,640.00	\$46,640.00	May require helicopter to delivery equipment and transmission line to transmitter site.	N/A	N/A
Tower structural analysis	\$2,500.00	\$2,500.00	See invoice	\$2,500.00	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
Sub-total	\$655,940.00	\$292,640.00	N/A	\$54,853.75	N/A
Total for all systems	\$4,144,063.75	\$3,820,820.65	N/A	\$2,314,925.60	N/A

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

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

Cost Information

Outside Professional Services

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$215,759.00	\$195,184.00		\$97,951.47	
Outside Professional Services - Engineering Consulting Services	\$850.00	\$850.00	Please see the invoice from Chesapeake RF Consultants, LLC. Invoice #5084,	N/A	N/A
Additional Repack Legal Services Not Otherwise Specified in Form 399	\$4,584.00	\$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

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
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$187.50	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
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	\$518.00	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	\$142,200.00	\$135,000.00	N/A	\$80,792.15	N/A
Sub-total	\$215,759.00	\$195,184.00	N/A	\$97,951.47	N/A
Total for all systems	\$4,144,063.75	\$3,820,820.65	N/A	\$2,314,925.60	N/A

Actual Information Description	File Name	
Outside Professional Services - Engineering Consulting Services	Information not provided.	
Additional Repack Legal Services Not Otherwise Specified in Form 399	Component Description: Amount:	Gravel & Shea PC \$1,527.99
RF Exposure Measurements	Component Description: Amount:	Provide 2 RF Specialists from GTI to attend the WCAX Mt. Mansfield tower site & Perform RF measurements to identify OET 65 issues. \$5,355.00
	Component Description: Amount:	WCAX-580-Field Eng RF measurements \$3,237.50
	Component Description: Amount:	Consultation on regulatory compliance at base station. \$2,100.00
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.	

Information not provided.	
Information not provided.	
Component Description:	Email re: lifting of anti-collusion rule, time of FCC letter; emails re: FCC letter, next steps; Email re: WPTZ
Amount:	\$600.00
Component Description:	Emails, review draft 2100, send draft to Gray. File 2100.
Amount:	\$650.00
Information not provided.	
Information not provided.	
Information not provided.	
	Information not provided. Component Description: Amount: Information not provided. Information not provided.

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	review engineering portions and related exhibits of "90 day" FCC CP application \$187.50
Perform engineering study for new channel assignment and antenna development	Component Description: Amount:	Engineering Study for New Channel Assignment \$1,283.33
	Component Description: Amount:	Perform engineering study for new channel assignment \$1,500.00
	Component Description: Amount:	Email duTreil re issues in repacking application \$200.00
Address transition timing and coordination issues w/ other stations and wireless	Component Description: Amount:	Total Professional Services \$518.00
Prepare and or review reimbursement form	Information not provided.	
Project management of the transition	Component Description: Amount:	Project Management \$2,624.35
	Component Description: Amount:	Project Management \$5,251.90

Project Management

Amount:

\$7,808.35

Component Description:

Project

Amount:

Management \$2,734.95

Component Description:

Project

Amount:

Management \$4,325.05

Project

Component Description:

Management

Amount:

\$3,376.95

Component Description:

Project

Amount:

Management

\$2,633.45

Component Description:

Amount:

Project Mgt

\$718.30

Component Description:

Project

Management

\$3,913.15

Component Description:

Amount:

Amount:

Project Mgt

\$2,381.30

Component Description:

Project

management

Amount:

\$2,330.15

Project

Amount:

Management \$2,498.65

Component Description:

Project

Amount:

management \$1,328.55

Component Description:

Project

Amount:

Management \$2,442.90

Component Description:

Project Management

Amount:

\$1,869.35

Component Description:

Project

Amount:

management \$2,951.90

Component Description: Project

Management

Amount: \$

\$2,111.25

Component Description:

Amount:

Project Mgt

\$3,763.95

Component Description:

Project

Amount:

Management

\$2,128.55

Component Description:

Amount:

Project Mgt \$802.25

Amount:

Project Mgt \$28.20

Component Description:

Project Management

Amount:

\$2,574.45

Component Description:

Amount:

Project Mgt \$2,507.30

Component Description:

Project

Amount:

Management \$2,515.60

Component Description:

Project

Amount:

Management

\$1,891.25

Component Description:

Project

Management

Amount:

\$4,051.70

Component Description: Project

Management

Amount:

Amount:

\$1,857.60

Transition Related **Component Description:**

Project

Management Costs

\$3,300.00 Amount:

Component Description:

Project

Management

\$2,158.05

Project

Management

Amount:

\$1,912.75

Cost Information

Other Expenses

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$255,172.00	\$247,057.00		\$15,620.39	
Taxes	\$171,482.00	\$171,482.00	N/A	N/A	N/A
MVPD Notification of Channel Change	\$1,000.00	\$1,000.00	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
Equipment Storage	\$12,000.00	\$12,000.00	N/A	\$7,523.63	N/A
Equipment Delivery and Handling Charges	\$10,000.00	\$10,000.00	N/A	\$8,096.76	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$25,000.00	\$25,000.00	N/A	N/A	N/A
BLM or NFS Coordination	\$10,000.00	\$10,000.00	N/A	N/A	N/A
Non-zoning permits	\$2,500.00	\$2,500.00	N/A	N/A	N/A

FCC Filing Fees - Special					
Temporary Authorization					
request					
FCC Filing Fees - Form	\$335.00	\$325.00	N/A	N/A	N/A
2100 license					
to cover application					
FCC Filing	\$1,110.00	\$1,070.00	N/A	N/A	N/A
Fees - Form 2100 minor					
change CP					
application					
DTV Medical	\$11,550.00	\$3,490.00	N/A	N/A	N/A
Facility Notification					
INOUIICAUON					
Sub-total	\$255,172.00	\$247,057.00	N/A	\$15,620.39	N/A
Total for all systems	\$4,144,063.75	\$3,820,820.65	N/A	\$2,314,925.60	N/A

<u>-</u>		
Actual Information Description	File Name	
Taxes	Information not provided.	
MVPD Notification of Channel Change	Information not provided.	
Develop and air announcement of upcoming channel change	Component Description: Amount:	Please deny this component N/A
Equipment Storage		

Equipment in **Component Description:**

warehouse,

storage from 4/12 /19-5/9/19 4

weeks

\$400.00 Amount:

Component Description: Load 12 pallets

out of storage for

delivery

Amount: \$559.05

Component Description: Equipment in

warehouse,

storage from 1/19 /19-2/15/19 4

weeks

Amount: \$400.00

Component Description: WCAX-610-

> Equipment Storage

Amount: \$400.00

Component Description: Equipment in

warehouse

Amount: \$800.00

Component Description: "Receive and

> External Inspection of Electrical

Instruments from Gates Air, Inc. 1

/14/19"

Amount: \$2,500.00

Component Description: Tools

Amount: \$464.58 Component Description: Equipment in

warehouse, storage

Amount: \$400.00

Component Description: Equipment in

warehouse,

storage

Amount: \$400.00

Component Description: Equipment in

warehouse,

storage

Amount: \$400.00

Component Description: Equipment in

warehouse,

storage

Amount: \$400.00

Component Description: Equipment in

warehouse,

Storage from 5/10

/19-6/7/19 4

weeks

Amount: \$400.00

Equipment Delivery and Handling Charges	Component Description:	Delivery to Top of Mt. Mansfield, 6/3 /19
	Amount:	\$776.99
	Component Description:	FORKLIFT VARIABLE
	Amount:	REACH \$2,180.08
	Component Description:	Receive and external inspection, pallets
	Amount:	\$1,907.13
	Component Description:	FORKLIFT WHSE 5000# GAS/LP
	Amount:	\$2,388.00
	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.	
Non-zoning permits	Information not provided.	
FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	
FCC Filing Fees - Form 2100 minor change CP application	Information not provided.	

DTV Medical Facility	Information not provided.
Notification	

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$4,144,063.75	\$3,820,820.65	\$2,314,925.60

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

Section Question Response

Submission of Estimated Expenses Statements

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

- 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.

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. Robert Folliard , III

Assistant Secretary

09/19/2019

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 Folliard , III

Assistant Secretary

09/19/2019

Attachments