

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Service: DTV Call WTAP-TV Channel: 35 (UHF) Facility Sign:

ID:

File 0000028742

Number:

FRN: 0018223693 Date 09/12

> Submitted: /2019

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
GRAY TELEVISION LICENSEE, LLC	WTAP-TV ONE TELEVISION PLAZA PARKERSBURG, WV 26101 United States	+1 (304) 485-4588	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 Hariton Widelity	Samuel Hariton 4031 University Dr Suite 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	The facility will be replacing the existing main transmitter, antenna, and transmission line and building an interim tower for the new interim transmitter, antenna, and transmission line.

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	CD3100P1
	Year	2001
	Туре	Inductive Output Tube
	IOT Power Type	Single
	Power Capacity	30 kW

Primary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-50
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	31.7 kW
	Justification for New Transmitter	Transmitter cannot be retuned.

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 Transmitter

Other Transmitter Cost Not Listed

•	Name	Description
	Generator Relocation	Relocation of existing generator system to facilitate reconfiguration of transmitter building.
	Transmitter building work	Necessary building work for new mask filter.

Remote	Control	System
Velliore	COLLIG	SVSLEIII

Remote control system for new transmitter.

Interim Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-60
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	31.7 kW
	Justification for New Transmitter	Interim transmitter needed to continue broadcasting through transition period.

Interim Transmitter

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	Yes
	Power	300 kVA
	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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	No

Interim Transmitter

Other Transmitter Cost Not Listed

Name	Description
Remote Control System	Remote control system for interim transmitter

Antennas

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

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna	Class	Full Power
Manufacturer and Type	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Туре	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	315.0 kW

Manufacturer	
Model	ATW20H3- ESO-49 TRASAR
Year	2011

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna	Class	Full Power
Manufacturer and Types	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Туре	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels/Bays	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Design power capacity in use	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	242.0 kW
	Manufacturer	

Model	TFU-18JSC /VP-R-04
Year	2020
Justification for New Antenna	Existing antenna cannot be retuned.

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	4
	Frequencies of channels supported	Upper and lower frequency
	Frequency	506.0 MHz - 602.0 MHz
	Do you need a combiner output splitter /switcher for dual feed lines?	No
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?	No

Sweep Test	Do you require the sweep testing of	Yes
	transmission line and antenna?	

Other Antenna Cost Not Listed

Information not provided.

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna	Class	Full Power
Manufacturer and Type	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Туре	Broadband Panel
	Number of Stations Supported	1
	Number of Panels/Bays	16
	Lower Limit	596.00 MHz
	Upper Limit	686.00 MHz
	Design power capacity in use	100.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	330.0 kW
	Manufacturer	
	Model	SBB- 16C170
	Year	2017

Justification for New Antenna	So that the station may
	operate on
	either
	channel
	during the
	transition.

Interim Antenna

Other Antenna Costs

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	В
	Feed Line Size	4 1/16 inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim Antenna

Other Antenna Cost Not Listed

Information not provided.

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

Primary Transmission

Existing Transmission Line

on 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?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission	Manufacturer	
Line Manufacturer and Type	Туре	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	19 3/4 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	528 feet per run

Primary Transmi

New Transmission Line

smissio	n 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	20 inches
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	620 feet per run
		Justification for New Transmission Line	Segment lengths do not match up with the new channel.

Primary Other Transmission Line Expenses Not Listed

Transmission loine tion not provided.

Interim

New Transmission Line

Transmission Line	Question	Response	
	New Transmission Line	Use	Interim
	Costs	Description of Use	N/A
		Change Type	Purchase New
		Туре	Rigid
		Diameter	4 1/16 inches
		Segment Length	Broadband
		Other Segment Length	
	Number of parallel runs	1	
		Length	300 feet per
		Justification for New Transmission Line	Interim transmission line needed so that the station may continue broadcasting during the transition period.

Interim Other Transmission Line Expenses Not Listed Transmission Line tion not provided.

Tower Equipment And Rigging Costs

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

Primary Tower

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?	No
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	No
	Others Types of Users	Yes
	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	1239800
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	39° 20' 59.8" N-
	Longitude (NAD83)	081° 33' 55.4" W-
	Overall Structure Height	462.92 fee
	Support Structure Height	459.97 fee
	Ground Elevation Above Mean Sea Level (AMSL)	970.13 fee

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Gray Television Group, Inc.
Date Constructed	11/21/2003

Other Types of Users

Users
Coast Guard
Ohio Marc
T-Mobile
WA CO Sheriff
WIYE-LD 130392
WOVA-LD 125125
Warren Vol Fire
Wood Co Sherrif
Wood EMG

Primary Tower

Tower Modification Costs

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

Primary Tower

Tower Rigging Costs

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

Primary Tower

Other Tower Expenses Not Listed

Name	Description
Anode Grounding System	Anode grounding system based upon corrosion testing
Replace Main Antenna	Remove existing main antenna and install new main antenna.
Move Equipment	Remove and install existing main and aux equipment
Level II corrosion	Level II corrosion testing

Interim Tower

Tower Construction Costs

Section	Question	Response
Construct New Tower	Use	Interim
	Description of Use	N/A
	Height	240.00 feet
	Justification for New Tower	Existing tower cannot take the weight of any more equipment.

Interim Tower

Tower Rigging Costs

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

Interim Tower

Other Tower Expenses Not Listed

Name	Description
Interim Antenna Installation	Installation of interim antenna and associated transmission line
Ice Bridge	Additional ice bridge for heat exchangers. 15'x20'

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 and antenna RF consultant for selection of feed line antennas.
Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2
	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
Jei Vices	For Auxiliary Facility	No
	For Main Facility	Yes
	I .	

	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2
	NEPA Section 106 environmental review	Yes
	Environmental Assessment	Yes
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside
Other Professional Services Expenses Not Listed
Professional Services ©qstsided.

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	No
	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
Fencing	Erect fence extension around relocated generator

Cost Information

Transmitters

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

			Estimated		
Description	Predetermined Cost Estimate	Estimated Cost	Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmitter ULXTE-60	\$2,736,094.56	\$1,953,440.19		\$1,044,955.44	
Transformer 3 phase/480v - 300 KVA	\$36,800.00	\$3,166.60	Remainder of the transformer plus tax supported by GatesAir Quote Q- 77381	\$3,166.60	N/A
Remote Control System	\$9,006.86	\$9,006.86	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 31.7 kW	\$1,215,287.70	\$1,215,287.70	GatesAir Quote Q- 80474	\$317,809.81	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.	\$2,000.00	\$2,000.00	N/A	N/A	N/A

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$723,979.03	***System Notice: Estimate adjusted and locked because line has been superseded. ***	\$723,979.03	N/#
Primary Transmitter ULXTE-50	\$1,197,181.52	\$1,197,181.52		\$705,379.90	
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.	\$287,500.00	\$287,500.00	N/A	\$99,022.47	N/A
Generator Relocation	\$14,700.00	\$14,700.00	N/A	N/A	N/A
Transmitter building work	\$15,900.00	\$15,900.00	N/A	N/A	N/A
Remote Control System	\$9,046.86	\$9,046.86	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 31.7 kW	\$870,034.66	\$870,034.66	GA- 0002297r2	\$606,357.43	N/A

Total for all	\$6,989,893.43	\$5,862,254.57	N/A	\$2,291,418.05	N/A
systems					

Components

Actual Information Description	File Name	
Transformer 3 phase/480v - 300 KVA	Component Description: Amount:	WTAP-180- Transformer - Interim Transmitter \$3,166.60
Remote Control System	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 31.7 kW	Component Description: Amount:	A. Transmitter \$317,609.25
	Component Description: Amount:	WTAP-180- Interim Transmitter \$200.56
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.	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	Component Description: Amount:	ULXTE-60 Transmitter \$723,979.03

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.

Provide 277/490V **Component Description:**

SVC to Customer

Amount:

\$9,108.04

Component Description: CH 600 Volt 800

> Amp Service **Entrance Rated**

Fused

Amount: \$37,791.44

Component Description: Eaton Cutler

> Hammer 225 Amp 3 120/208 42

Amount: \$4,764.36

Component Description: 4" PVC Conduit

Amount: \$17,956.63

Component Description: TRANSFER

SWITCH A59

Amount: \$13,049.11

Component Description: WTAP-110-

> Electrical service **New 1st Primary** Transmitter

Amount: \$300.84

Component Description: .5 EMT Conduit

Amount: \$16,052.05

Generator Relocation Information not provided. Transmitter building work Information not provided.

Remote Control System Information not provided. UHF - Liquid Cooled Solid State Transmitter 31.7 kW

Component Description: WTAP-110-New

1st Primary

Transmitter

Amount: \$300.84

Component Description: ULXTE-50

Transmitter

Amount: \$606,056.59

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
Interim Antenna SBB- 16C170	\$267,830.00	\$152,730.40		\$56,536.40	
UHF - Lower Power Side Mount, One station antenna 200-500 kW, elliptically or circularly polarized	\$227,000.00	\$113,742.40	See attached Quote	\$53,016.40	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	N/A	N/A
Elbow complex, broadband, at antenna input, per 4 1/16. feedline (if needed)	\$10,950.00	\$10,588.00	Includes state and local taxes	N/A	N/A

Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$3,520.00	N/A
Primary Antenna TFU-18JSC /VP-R-04	\$353,380.00	\$291,257.09		\$153,350.40	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$12,768.00	JEHQ1288- 03	\$10,214.40	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,120.00	N/A
UHF - Lower Power Side Mount, One station antenna 200-500 kW, elliptically or circularly polarized	\$227,000.00	\$187,520.00	See attached Quote	\$124,000.00	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$67,049.09	N/A	N/A	N/A

Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$17,520.00	N/A	\$14,016.00	N/A
Sub-total	\$621,210.00	\$443,987.49	N/A	\$209,886.80	N/A
Total for all systems	\$6,989,893.43	\$5,862,254.57	N/A	\$2,291,418.05	N/A

Components

Actual Information Description	File Name		
UHF - Lower Power Side Mount, One station antenna 200-500 kW, elliptically or circularly polarized	Component Description:	Rigging and offloading of RFS Interim antenna	
	Amount:	\$200.56	
	Component Description	UHF - Broadband	
	Component Description:	panel, side mount Aux/Interim SBB- 16C170 16 Bay	
		Broadband UHF Side Mount	
	Amount:	Antenna \$24,007.20	
	Component Description:	UHF - Broadband Panel, Side	
		Mount Aux /Interim, Sweep -	
		Repack, incl. Field Engineer	
	Amount:	\$28,808.64	

Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	
Elbow complex, broadband, at antenna input, per 4 1/16. feedline (if needed)	Information not provided.	
Sweep test of existing antenna	Component Description: Amount:	Sweep \$1,600.00
	Component Description: Amount:	Repack Sweep \$1,920.00
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Component Description:	WTAP-210-Elbow complex New Primary Antenna
	Amount:	\$3,192.00
	Component Description:	WTAP-210-Elbow complex New
	Amount:	Primary Antenna \$3,830.40
	Component Description:	WTAP-210-Elbow complex New
	Amount:	Primary Antenna \$3,192.00

New combiner, cost per	Information not provided.	
	Amount:	TFU 18JSC/VP-R- 04 WTAP \$38,750.00
	Component Description:	UHF - High Power Side Mount TV Ant
	Component Description: Amount:	New Primary Antenna \$46,500.00
	Amount:	\$38,750.00
UHF - Lower Power Side Mount, One station antenna 200-500 kW, elliptically or circularly polarized	Component Description:	UHF - HIGH POWER SIDE MOUNT
	Amount:	Primary Antenna \$1,600.00
	Component Description:	WTAP-210- Sweep test New
	Amount:	Primary Antenna \$1,920.00
	Component Description:	Sweep test New
	Amount:	Primary Antenna \$1,600.00
antenna	Component Description:	WTAP-210- Sweep test New

Side mount brackets for high power antennas (if not included in antenna base cost)

Component Description: WTAP-210-Side

mount brackets New Primary Antenna

Amount: \$4,380.00

Component Description: Side mount

brackets New

Primary Antenna

Amount: \$5,256.00

Component Description: WTAP-210-Side

mount brackets
New Primary
Antenna

Amount: \$4,380.00

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmission Line	\$48,900.00	\$47,335.55		\$4,552.38	
Rigid Transmission Line - copper, 4 1 /16" broadband	\$48,900.00	\$47,335.55	JEHQ1307	\$4,552.38	N/A
Primary Transmission Line	\$125,240.00	\$144,625.25		\$126,747.20	
Rigid Transmission Line - copper, 6 1/8"	\$125,240.00	\$144,625.25	see Estimated Cost Justification WTAP-310- New Primary Transmission Line v0	\$126,747.20	N/A
Sub-total	\$174,140.00	\$191,960.80	N/A	\$131,299.58	N/A
Total for all systems	\$6,989,893.43	\$5,862,254.57	N/A	\$2,291,418.05	N/A

Components

Actual Information Description	File Name	
Rigid Transmission Line - copper, 4 1/16" broadband	Component Description: Amount:	WTAP-380-Interim Transmission Line \$4,552.38

Rigid Transmission Line - copper, 6 1/8"

Component Description: WTAP-310-New

Primary

Transmission Line

Amount: \$3,344.24

Component Description: WTAP-310-New

Primary

Transmission Line

Amount: \$23,412.99

Component Description: WTAP-310-New

Primary

Transmission Line

Amount: \$200.56

Component Description: New Primary

Transmission Line

Amount: \$28,095.62

Component Description: 0018596501 6-50

TO 4-50 Reducer

Amount: \$18,105.30

Component Description: WTAP-310-New

Primary

Transmission Line

Amount: \$23,412.99

Component Description: Rigid

Transmission Line - Copper, Elbow,

Dehydrator, etc.

Amount: \$30,175.50

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 Primary	Predetermined Cost Estimate \$1,435,228.00	Estimated Cost \$1,262,140.46	Estimated Cost Justification	Actual Cost \$86,541.80	Actual Cost Justification
Tower TOWER Anode Grounding	\$15,000.00	\$15,000.00	See vendor invoice	\$11,205.00	N/A
Structural engineering tower load study for well documented tower	\$12,600.00	\$36,383.05	Per Estimated Cost Justification WTAP-410- Structural Analysis Existing Primary Tower v0, Gates Air Quote Q- 76839 Includes state and local taxes; see invoice Hodge Structural Engineers 17G000508.	\$36,383.05	N/A
Replace Main Antenna	\$134,813.00	\$134,813.00	N/A	N/A	N/A

Move Equipment	\$130,215.00	\$130,215.00	GTIA Quote Q17-06- 030b1 dated 12/17 /18 (uploaded into LMS	\$32,553.75	N/A
Short Tower (less than 500')	\$84,200.00	\$134,954.41	E-17440-5 Includes steel member replacement at top of tower	N/A	N/A
Serious tower reinforcement /modifications	\$1,052,000.00	\$804,375.00	Includes state and local taxes	N/A	N/A
Level II corrosion	\$6,400.00	\$6,400.00	N/A	\$6,400.00	N/A
Interim Tower	\$536,776.25	\$532,576.25		\$7,332.00	
New tower	\$351,576.25	\$351,576.25	Includes the foundation, as well as state and	\$7,332.00	N/A
			local taxes and shipping.		
Ice Bridge	\$21,000.00	\$21,000.00	and	N/A	N/A
Ice Bridge Interim Antenna Installation	\$21,000.00 \$80,000.00	\$21,000.00 \$80,000.00	and shipping.	N/A N/A	N/A N/A
Interim Antenna			and shipping. N/A		
Interim Antenna Installation Short Tower (less than	\$80,000.00	\$80,000.00	and shipping. N/A N/A	N/A	N/A

Actual Information Description	File Name	
Anode Grounding System	Component Description: Amount:	COPPER STRAP \$1,150.00
	Component Description: Amount:	Supply labor and equipment to install customer supplied Anode Grounding Systems (3) guy anchor system (6 anodes total) for the (3) WTAP-TV guy anchors with all materials supplied by WTAP-TV \$7,250.00
	Component Description: Amount:	Grounding System \$2,805.00
Structural engineering tower load study for well documented tower	Component Description: Amount:	Structural Engineering Services \$6,500.00
	Component Description: Amount:	Engineering Evaluation \$3,500.00
	Component Description: Amount:	SITE SURVEY \$568.05

Component Description: Engineering Evaluation \$9,000.00 Amount: **Component Description:** Engineering evaluation of the 460' guyed tower. \$2,000.00 Amount: **Component Description:** Re-analysis Structural engineering of 460 tower Amount: \$1,200.00 **Component Description:** Site Survey Amount: \$8,115.00 **Component Description:** Engineering Evaluation Amount: \$2,000.00 **Component Description:** Engineering Evaluation Amount: \$3,500.00 Information not provided. **Component Description: Tower Equipment** and Rigging \$32,553.75 Amount: Short Tower (less than 500') Information not provided. Serious tower reinforcement Information not provided.

Replace Main Antenna

Move Equipment

/modifications

Level II corrosion		
	Component Description:	Level II corrosion
		risk analysis
	Amount:	\$6,400.00
New tower		
	Component Description:	Geotechnical
		services for New
		Interim tower
	Amount:	proposed site \$5,865.00
	Amount	ψ0,000.00
	Component Description:	Total professional
		services
	Amount:	\$615.00
	Component Description:	For professional
		services rendered
		through October
		31, 2018
	Amount:	\$852.00
Ice Bridge	Information not provided.	
Interim Antenna Installation	Information not provided.	
Short Tower (less than 500')	Information not provided.	

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Co Justificati
Outside Professional Services	\$199,680.00	\$200,636.76		\$100,422.91	
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	\$1,337.50	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	N/A	N/A
Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	\$10,520.00	\$12,041.13	Environmentex Consulting Proposal	\$5,067.00	N/A
NEPA Section 106 environmental review, if needed	\$6,310.00	\$12,458.13	Waterman Douglass & Associates invoice 20180051 A WTAP; Justifying invoice Environmentex 18303	\$7,391.11	N/A

Attorney Fees - Prepare and File request for Special Temporary Authorization	\$7,360.00	\$7,000.00	N/A	\$125.00	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$196.50	N/A
Prepare request for Special Temporary Authorization	\$4,100.00	\$3,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	N/A	N/A

Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$10,387.50	Hodge Structural Engineers invoice 17G000507.1, Chesapeake RF Consultants, LLC Invoice, & THTV Invoices	\$10,387.50	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	\$142,200.00	\$135,000.00	N/A	\$75,918.30	N/A
Sub-total	\$199,680.00	\$200,636.76	N/A	\$100,422.91	N/A
Total for all systems	\$6,989,893.43	\$5,862,254.57	N/A	\$2,291,418.05	N/A

Components

Actual Information	
Description	File Name

FAA consultant, including cost of preparing FAA Form Regarding interim **Component Description:** 7460 (Notice of Proposed operation on Construction), if needed for repack Ch-35, height increase various discussions regarding removal of tower lighting requirement, prepare and submit FAA form 74460-1 Amount: \$650.00 **Component Description:** Regarding interim operation on repack Ch-35, determine site location and elevation data for new (interim antenna) tower. Amount: \$687.50 ASR modification (prepare Information not provided. FCC Form 854) Environmental Assessment, if triggered by NEPA **Component Description: NEPA Screen** Section 106 review or for /Section 106 certain structures over 450 **Review WTAP** feet 12266 Veto Road, Constitution, Washington County, Ohio 45750. Amount: \$5,067.00 NEPA Section 106 environmental review, if **Component Description:** 20180051 WTAP needed **Tower NEPA** Study Amount: \$7,391.11

Attorney Fees - Prepare and File request for Special Temporary Authorization	Component Description: Amount:	Review proposed main antenna and broadband interim antenna specification from 2 manufacturers. \$125.00
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.	
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Complete and file initial repack construction permit application for WTAP \$196.50
Prepare request for Special Temporary Authorization	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Perform engineering study for new channel assignment and antenna development	Component Description:	Develop final configuration for main antenna and determine ERP based on intended transmitter for repack

Component Description: Repack Engineering Interim antenna analysis - Robert E Thurber \$1,875.00 Amount: **Component Description:** Regarding repack Ch-35, review antenna proposals from two vendors \$187.50 Amount: **Component Description:** Perform engineering study for new channel assignment Amount: \$2,712.50 **Component Description:** Perform engineering study for new channel assignment Amount: \$437.50 **Component Description:** RF Consulting Amount: \$125.00 **Component Description:** Antenna and Transmission Line Mapping Amount: \$3,600.00 Information not provided. Information not provided.

Address transition timing

Prepare and or review

reimbursement form

and coordination issues w/ other stations and wireless

Project management of the

Component Description: Project

Management

Amount:

\$1,936.65

Component Description:

Project

Amount:

Management \$2,721.85

Project

Component Description:

Management

Amount:

\$1,992.65

Component Description:

Project

Amount:

Management \$2,457.40

Component Description: Project

Management

Amount:

\$2,776.95

Component Description:

Amount:

Cost Reconciliation

\$2,775.45

Component Description: Project

Management

Amount: \$3,142.20

Component Description:

Project Management

Amount: \$3,288.80

Component Description:

Project Management

Amount:

\$462.00

Component Description: Project

> Management \$1,706.25

Amount:

Project

Management

Amount:

\$755.80

Component Description:

Component Description:

Project

management **Amount:**

\$3,536.90

Component Description:

Project

Amount:

Management \$4,280.65

Component Description:

Project

Management

Amount:

\$1,845.25

Component Description:

Project

Management

Amount:

\$2,521.95

Component Description:

Project

Amount:

Management \$1,890.75

Component Description:

Project

Amount:

Management \$2,775.85

Component Description:

Project

Amount:

Management

\$1,363.95

Component Description: Project

Management \$3,605.65

Amount:

Component Description: Amount:

Project managment

t: \$1,328.55

Component Description: Transition Related

Project

Management Costs

Amount: \$3,300.00

Component Description:

Project

Management

Amount: \$28.20

Component Description:

Project

Management

Amount:

\$4,369.80

Component Description:

Project

Management

Amount: \$1,72

\$1,728.10

Component Description:

Project

Amount:

Management

\$2,472.60

Component Description:

Project

Amount:

management \$2,750.15

Component Description:

Project

Amount:

Management

\$2,116.85

Component Description: Project

Management

Amount: \$802.25

Component Description: Project

Management

Amount: \$3,588.75

Component Description: Project

Management

Amount: \$4,037.30

Component Description: Project

Management

Amount: \$3,558.80

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	\$89,583.10	\$80,331.10		\$5,599.62	
Equipment Delivery and Handling Charges	\$5,000.00	\$5,000.00	N/A	\$1,988.77	N/A
Fencing	\$9,691.00	\$9,691.00	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	\$13,600.00	\$13,600.00	N/A	N/A	N/A
Equipment Storage	\$1,102.10	\$1,102.10	Please see attached Atlas Trailer Rentals Explanation of Equipment Storage Costs	\$1,102.10	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$30,000.00	\$30,000.00	N/A	\$2,508.75	N/A
Non-zoning permits	\$16,000.00	\$16,000.00	N/A	N/A	N/A

Sub-total	\$89,583.10	\$80,331.10	N/A	\$5,599.62	N/A
DTV Medical Facility Notification	\$11,550.00	\$2,353.00	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
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

Components

Actual Information Description	File Name	
Equipment Delivery and Handling Charges	Component Description: Amount:	WTAP-610- Equipment Delivery \$1,988.77
Fencing	Information not provided.	
MVPD Notification of Channel Change	Information not provided.	
Develop and air announcement of upcoming channel change	Information not provided.	

Equipment Storage		
	Component Description:	8 x 40 - 45 container Unit 453466 6/27/19-7
	Amount:	/27/19 \$1,102.10
Disposal Costs (for equipment and other waste, net of any salvage value)	Component Description:	"30YRD DUMPSTER TRANSMITTER
	Amount:	SITE 1 REPACKING" \$1,370.88
	Component Description: Amount:	30 yrd dumpster \$1,137.87
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 Notification	Information not provided.	

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$6,989,893.43	\$5,862,254.57	\$2,291,418.05

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

Section Question Response

Submission of Estimated Expenses Statements

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

- 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

09/12/2019

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

09/12/2019

Attachments