

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: File	73136 000002	Service: DTV	Call Sign:	WJHG-TV	Channel: 16 (UHF)
Number:					
FRN: 00	18223693	Date	10/07		
		Submitted:	/2019		

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
GRAY TELEVISION LICENSEE, LLC	WJHG 8195 FRONT BEACH ROAD PANAMA CITY, FL 32407 United States	+1 (850) 234-7777	robert. folliard@gray. tv	Limited Liability Company

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer	Preparer Contac	t Name and Inform	nation		
Contact 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	Question	Response
Information and Transition Plan	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	See attached narrative

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

Primary Existing Transmitter Information

Transmitter	Section	Question	Response
	Existing Transmitter Description	Type of change	Retune Existing
		Use	Primary (Main)
		Ownership	Owned
		Owner	N/A
		Is this transmitter currently shared with another station?	No
		Is this transmitter currently in operating condition?	Yes
	Existing Transmitter	Manufacturer	GatesAir
	Manufacturer and Type	Model	Maxiva ULXT-80AT UHV
		Year	2014

Туре	Solid State
Solid State Cooling	Liquid Cooled
Solid State Power capacity	54.8 kW

Retuning Transmitter Costs Primary Transmitter

Section	Question	Response
New IOT Tubes	Number of Tubes (including accessories) needed	N/A
New Mask Filter	Power	Other
	Other Power	50 kW
New Exciter	Is a new exciter needed?	No

Other Transmitter Costs Primary

Transmitter	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	No
		Switchgear (industrial 800 amp)	No
		Transformer (480V)	No
		Power	N/A
		Rigid Conduit and Wiring	No
		Size	N/A
		Length	N/A
		Other Electrical Service	No
		Description	N/A
	HVAC Service	Does the replacement transmitter require HVAC Service?	No
		Туре	N/A
		Size	N/A

	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Other Transmitter Cost Not Listed

Transmitter Information not provided.

Interim New Transmitter Costs

Transmitter	Section	Question	Response
	New Transmitter	Use Description of Use Change Type Manufacturer	Interim
			N/A
			Purchase
	Model Transmitter Type	Model	ULXTE-12
		Transmitter Type	Solid State
		Solid State Cooling Solid State Power capacity	Liquid Cooled
			6.46 kW
			•

Justification for New Transmitter	Interim transmitter installed at the alternate transmitter site needed to continue broadcasting through the
	period

Other Transmitter Costs Interim

Transi

mitter	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 Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	No

Interim Other Transmitter Cost Not Listed

Transmitter

Name	Description
Monitoring	Monitoring for Interim transmitter
Microwave Components	Microwave Dishes, Line, etc.
Concrete Slab	10'x10' Slab
Microwave Radios	STL Extension to alternate transmitter site
Generator Repairs	It needs to be repaired

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

Primary	Existing Antenna Information			
Antenna	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?	Yes	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	No	
	Existing Antenna Manufacturer and Type	Class	Full Power	
		Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Elliptical	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels	N/A	
		Design power capacity in use	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	1000.0 kW	

Manufacturer	
Model	TFU-28JSC /VP-R 4C140 D18
Year	2014

Primary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	Yes	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna	Class	Full Power	
	Manufacturer and Types	Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Elliptical	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels/Bays	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Design power capacity in use	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	1000.0 kW	
		Manufacturer		
			1	

Model	TFU-28JSC /VP-R C140
Year	2017
Justification for New Antenna	The existing antenna is for channel 18 only and will not work for the designated re-pack channel 16.

Primary Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Туре	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	6 1/8 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
	Combiner for Shared Antenna	Combiner for Shared AntennaDo you need a Combiner for a Shared Antenna?TypeNumber of channels supportedFrequencies of channels supportedFrequencies of channels supportedFrequencyDo you need a combiner output splitter /switcher for dual feed lines?Elbow ComplexDo you require the separate purchase of the Elbow Complex?Broadband or Single Channel?Side Mount BracketsDo you require the separate purchase of side mount brackets for a high power

Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Primary Antenna	Other Antenna Cost Not Listed	
	Name	Description
	Sweep Test Primary Chan 18 Antenna	Sweep test of existing channel 18 antenna to determine if it can be used for new repack channel

Interim	New Antenna Costs			
Antenna	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?	Yes	
	New Antenna	Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna Manufacturer and Type	Class	Full Power	
		Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels/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)	72.0 kW	
		Manufacturer		
		Model	TLP16B	
		Year	2017	

Justification for New Antenna	Interim
	antenna
	needed to
	continue
	broadcastin
	through the
	transition
	period

Interim Other Antenna Costs Response Section Question Response Elbow Complex Do you require the separate purchase of the Elbow Complex? No Broadband or Single Channel? N/A

	Broadband or Single Channel?	N/A
	Feed Line Size	N/A
Side Mount Brackets	Do you require the separate purchase of side mount brackets for 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 Other Antenna Cost Not Listed

Antenna

Name	Description
Sweep Test Existing Antenna and Line	Sweep test of existing antenna/line at auxiliary site to determine viability on new repack channel

Transmissior	n Seffien	Question	Response
	Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

ransmissio	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	20 inches
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	1400 feet per run

Primary Existing Transmission Line

Primary	New Transmission Line			
Transmission	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	19 1/2 inches	
		Other Segment Length	N/A	
		Number of parallel runs	1	
		Length	1400 feet per run	
		Justification for New Transmission Line	Sweep on existing line measured 490.460 MHz. Channel 16 needs to be within the range of 482 MHz and 488 MHz, line must be replaced.	

Interim Transmissio	New Transmission Line		
	n Line Section	Question	Response
	New Transmission Line Costs	Use	Interim
		Description of Use	N/A
		Change Type	Purchase New
		Туре	Flexible Air
		Diameter	3 inches
		Segment Length	N/A
		Other Segment Length	
		Number of parallel runs	1
		Length	825 feet per run
		Justification for New Transmission Line	Performed Line Sweep on existing 4" Rigid Line and it measured 490 MHz. The range for Channel 16 is 482 MHz - 488 MHz.

Interim	Other Transmission Line Expenses Not Listed		
Transmissic	on <u>Line</u>	Description	
	Sweep Existing Transmission Line	Sweep test of existing transmission line to determine if it is suitable for use	

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

Auxiliary Tower	Add Tower			
	Section	Question	Response	
	Existing Tower Description	Type of change	Modify Existing	
		Tower Use	Auxiliary (Backup)	
		Description of Use	Alternate Tower Site	
		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?	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)	30° 26' 00.1" N-	
		Longitude (NAD83)	085° 24' 51.0" W-	
		Overall Structure Height	1499.98 feet	
		Support Structure Height	1499.98 feet	

Ground Elevation Above Mean Sea Level (AMSL)	138.12 feet
Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Gray Television Group, Inc.
Date Constructed	01/01/1962

Other Types of Users

Users

US Customs

Auxiliary Tower Section Ou

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:	Major Reinforcements needed

Auxiliary Tower Rigging Costs

Tower

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

Other Tower Expenses Not Listed Auxiliary Tower

Information not provided.

Primary	Existing Tower			
Tower	Section	Question	Response	
	Existing Tower Description	Type of change	Modify Existing	
		Tower Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Leased	
		Is this tower consider Complex?	No	
		Is this tower currently shared with any other stations?	Yes	
		One or more FM, AM or TV radio broadcaster(s)	Yes	
		Others Types of Users	Yes	
		Is tower documented for structural analysis?	Yes	
		Is tower compliant with Rev G?	Yes	
	Existing Tower Structure Registration	Do you have a tower registration number?	Yes	
		ASR Number	1043251	
	Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	30° 21' 09.0" N-	
	of 1983))	Longitude (NAD83)	085° 23' 28.0" W-	
		Overall Structure Height	1465.53 feet	
		Support Structure Height	1403.20 feet	
		Ground Elevation Above Mean Sea Level (AMSL)	78.74 feet	
		Structure Type	TOWER - Free Standing or Guyed Structure	

Tower Owner	Nexstar Broadcasting, Inc.
Date Constructed	08/01/1990

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
66398	WMBB	DTV
42372	WPFM	FM

Other Types of Users

Users

Verizon

Primary Tower Modification Costs

Tower

Tower

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:	Major Reinforcements needed

Primary 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	
	Microwave Installation	Installation of Microwave Gear on towers	

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	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	1
		Do you have Distributed Transmission System engineering services?	N/A
		Critical Facility	N/A
		Terrain-Shielded Facility	N/A
	Attorney and Other Outside Consulting Services	Prepare and file Form FCC Construction Permit Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		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	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	No
	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 Costs	Description
	RF Engineer-Microwave Link	Develop technical parameters for new 13 GHz duplex microwave system and commercial frequency coordination

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

Other Expenses	Other Expenses Not Listed		
	Name	Description	
	Antenna Storage Cost	Antenna storage cost at Dielectric prior to shipment to station	
	Emergency Road Repair	Immediate repairs to access road to reach out to final facility to complete repack work	

Transmitters

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmitter ULXTE-12	\$421,123.69	\$463,661.86		\$415,596.39	
Generator Repairs	\$1,208.20	\$1,208.20	N/A	N/A	N/A
Microwave Radios	\$114,301.10	\$114,301.10	N/A	\$96,767.79	N/A
Concrete Slab	\$1,712.00	\$1,712.00	N/A	\$0.00	N/A
Microwave Components	\$21,636.96	\$21,636.96	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW	\$273,500.00	\$316,038.17	Gates Air quote: Q- 73509 GatesAir Invoice: US0323319 Fuqua & Sons PO: 1617	\$316,038.17	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.	\$2,790.43	\$2,790.43	Kenny Strange Electric Invoice #12155	\$2,790.43	Invoices
Monitoring	\$5,975.00	\$5,975.00	N/A	\$0.00	N/A
Primary Transmitter Maxiva ULXT- 80AT UHV	\$265,262.01	\$204,433.94		\$204,433.94	
Other 50 kW mask filter	\$160,062.01	\$160,062.01	Includes shipping and state & local taxes; GatesAir Quotes # GA- 00021465 and # Q- 77913 (change order); Justifying Invoice & Quote - WJHG	\$160,062.01	N/A

UHF and VHF - minor banding issues	\$105,200.00	\$44,371.93	GA- 00021465; Justifying Invoice & Quote - WJHG GatesAir US0324131	\$44,371.93	N/A
Sub-total	\$686,385.70	\$668,095.80	N/A	\$620,030.33	N/A
Total for all systems	\$3,024,967.21	\$2,807,073.26	N/A	\$1,805,908.92	N/A

Components

Actual Information Description	File Name				
Generator Repairs	Information not provided.				
Microwave Radios					
	Component Description:	13GHz IPLink HS STL, TSL IPLi GHz high RF output hot standby duplex IP microwave terminal w/ data throughout licensable to 360 Mbps full duplex. \$96,767.79			
Concrete Slab					
	Component Description: Amount:	Construct 10X10 equipment pad. \$1,600.00			
Microwave Components	Information not provided.				

UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5		
kW	Component Description:	Freight,
		Broadband PA,
		ULXT B-STOCK
	Amount:	\$16,585.01
	Component Description:	Installation of roof structure over
		equipment tower site.
	Amount:	\$1,795.00
	Component Description:	UXLTE-12
		Transmitter
	Amount:	\$89,297.45
	Component Description:	ULXTE-12
	Amount:	Transmitter \$208,360.71
Other Electrical Service: The		
new transmitter will require reconfiguration of the electrical service on site.	Component Description:	Transmitter fans; wired and checked voltage
The electrical work cost has		to filter fans
been estimated based on verbal guidance from local electrical contractors.	Amount:	\$1,000.50
	Component Description:	Transmitter - demo circuite no
		longer in use/
		Wiring for
		transmitter
	Amount:	\$1,789.93
Monitoring	Information not provided.	

Other 50 kW mask filter	Component Description: Amount:	Channel change equipment \$69,435.15
	Component Description:	WJHG-110-New mask filter existing Primary Transmitter
	Amount:	\$34,061.15
	Component Description:	New Mask Filter for Existing Primary
	Amount:	Transmitter \$56,565.71
UHF and VHF - minor banding issues	Component Description:	Channel Change Equipment Channel Change
	Amount:	Services Freight \$20,713.79
	Component Description:	Transmitter UXLTD-80 Retuning
	Amount:	\$21,930.51
	Component Description:	PWA, AC Distribution
	Amount:	\$1,727.63

Antennas

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TLP16B	\$124,130.00	\$90,342.65		\$37,044.87	
UHF - Lower Power Side Mount, One station antenna - medium power (50- 200 kW), horizontally polarized	\$89,400.00	\$75,099.65	N/A	\$24,226.87	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$6,400.00	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$3,993.00	DTVPros Invoice # 152-4	\$3,993.00	N/A
Sweep Test Existing Antenna and Line	\$4,850.00	\$4,850.00	See attached quote	\$2,425.00	N/A
Primary Antenna TFU-28JSC /VP-R C140	\$298,484.92	\$293,707.61		\$220,663.29	

Sweep Test Primary Chan 18 Antenna	\$8,200.00	\$8,200.00	See attached invoice.	\$4,100.00	invoice
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$17,520.00	Per DTVPros quote JEHQ1231- 02	\$15,731.44	Side Mount Brackets for Primary Antenna
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	\$248,104.92	\$248,104.92	N/A	\$183,948.52	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,398.54	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$13,482.69	Per Estimated Cost Justification WJHG-210- Elbow Complex New Primary Antenna v0, Per DTV Pros quote JEHQ1231- 02	\$11,484.79	Per DTV Pros quote JEHQ1231 02
			02		

Components

Actual Information Description	File Name	
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	Component Description: Amount:	UHF - Low Power Side Mount TV Ant TLP16B \$6,601.51
	Component Description: Amount:	25% payment on Interim Antenna \$5,507.93
	Component Description: Amount:	Interim Antenna \$6,609.51
	Component Description:	UHF Low Power Side Mount TV Antenna TLP16B
	Amount:	\$5,507.92

Sweep test of existing antenna		
	Component Description:	Sweep Test-
		Interim Antenna
	Amount:	\$1,280.00
	Component Description:	Sweep Test
		Auxiliary Antenna
	Amount:	\$1,600.00
	Component Description:	Sweep test Aux.
		Antenna
	Amount:	\$1,920.00
	Component Description:	Sweep Test New
		Interim Antenna
	Amount:	\$1,600.00
Side mount brackets for high power antennas (if not		
included in antenna base	Component Description:	Interim Antenna
cost)		Side mount
,	A	bracket
	Amount:	\$907.80
	Component Description:	Side mount
		brackets Interim
		Antenna
	Amount:	\$1,088.04
	Component Description:	Side Mount
		Brackets for Lower
		Power Antenna
	Amount:	\$907.80
	Component Description:	Site mount bracket
	Amount:	\$1,089.36

Sweep Test Existing Antenna and Line	Component Description: Amount:	Sweep Test of Existing Auxiliary Transmission Line \$2,425.00
Sweep Test Primary Chan 18 Antenna	Component Description: Amount:	Sweep test of existing primary antenna system \$4,100.00
Side mount brackets for high power antennas (if not included in antenna base cost)	Component Description: Amount:	WJHG-310-New Primary Transmission Line \$5,219.44
	Component Description: Amount:	Side Mount Brackets for Primary Antenna \$6,132.00
	Component Description: Amount:	Side Mount Brackets for Primary Antenna \$4,380.00

UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	Component Description: Amount:	Primary Antenna - UHF - High Power Side mount \$71,679.29
	Component Description:	UHF - HIGH POWER SIDE MOUNT
	Amount:	\$61,069.74
	Component Description:	Please deny this invoice
	Amount:	N/A
	Component Description:	Primary Antenna Side-Mount Brackets
	Amount:	\$6,132.00
	Component Description:	Primary Antenna Elbow Complex
	Amount:	\$4,468.80
	Component Description:	Please deny this invoice
	Amount:	N/A
	Component Description:	UHF High Power side mount
	Amount:	\$51,199.49

Sweep test of existing antenna		
antenna	Component Description:	Sweep Test of
		New Primary
		Antenna
	Amount:	\$2,240.00
	Component Description:	WJHG-210-Sweep
		test New Primary
	Amount:	Antenna \$1,558.54
	Component Description:	Please deny this component
	Amount:	N/A
	Component Description:	New Primary
		Antenna, Sweep Test
	Amount:	\$1,600.00
Elbow complex, single		
channel, at antenna input, per 6 1/8. feedline (if	Component Description:	Elbow Complex for Primary Antenna
needed)	Amount:	\$3,192.00
	Component Description:	Elbow Complex for
	component Description.	Primary Antenna
	Amount:	\$4,468.80
	Component Description	Elbow complex
	Component Description:	Elbow complex New Primary
	Component Description:	Elbow complex New Primary Antenna

Transmission Line

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmission Line	\$61,725.00	\$53,324.65		\$40,274.61	
Flexible Air Transmission Line - dielectric, 3"	\$48,675.00	\$40,274.65	See vendor quote JEHQ1257- 01	\$40,274.61	N/A
Sweep Existing Transmission Line	\$13,050.00	\$13,050.00	See vendor invoice	\$0.00	N/A
Primary Transmission Line	\$282,800.00	\$263,955.76		\$213,574.47	
Rigid Transmission Line - copper, 6 1/8"	\$282,800.00	\$263,955.76	N/A	\$213,574.47	N/A
Sub-total	\$344,525.00	\$317,280.41	N/A	\$253,849.08	N/A
Total for all systems	\$3,024,967.21	\$2,807,073.26	N/A	\$1,805,908.92	N/A

Components

Actual Information Description File Name

Flexible Air Transmission Line - dielectric, 3"	Component Description: Amount:	Interim Transmission Line \$12,392.50
	Component Description: Amount:	Interim Antenna Transmission Line \$8,713.15
	Component Description: Amount:	New Auxiliary Transmission Line \$8,713.16
	Component Description: Amount:	Aux. Transmission Line \$10,455.80
Sweep Existing Transmission Line	Information not provided.	

Rigid Transmission Line - copper, 6 1/8"	Component Description:	On-Site add-ons, program management
	Amount:	\$30,815.12
	Component Description:	Primary Transmission Line
	Amount:	\$71,101.25
	Component Description:	WJHG-210-Elbow complex New Primary Antenna
	Amount:	\$60,429.40
	Component Description:	Freight, fluid coupler, female
	Amount:	\$442.09
	Component Description:	New Primary Transmission Line
	Amount:	\$50,786.61

Tower Equipment and Rigging Costs

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justificatio
Primary Tower TOWER	\$670,300.00	\$598,665.30		\$172,829.80	
Tall Tower (greater than 500')	\$210,500.00	\$164,965.30	Per Estimated Cost Justification WJHG-410- Install antennas and lines Existing Primary Tower v0, Per GTI America Invoice GTIA-1064	\$164,965.30	N/A
Microwave Installation	\$26,200.00	\$26,200.00	N/A	\$364.50	N/A
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	\$0.00	N/A
Structural engineering tower load study for well documented tower	\$12,600.00	\$7,500.00	N/A	\$7,500.00	N/A
Auxiliary Tower TOWER	\$644,100.00	\$599,978.95		\$360,226.95	
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	\$160,248.00	N/A

Structural engineering tower load study for well documented tower	\$12,600.00	\$15,000.00	2017-Gray- WJHG- AUX-0406- N plus invoice for \$1,750 for feasibility analysis	\$15,000.00	N/A
Tall Tower (greater than 500')	\$210,500.00	\$184,978.95	Per Quote JEHQ1302- 02 and Invoice 165	\$184,978.95	N/A
Sub-total	\$1,314,400.00	\$1,198,644.25	N/A	\$533,056.75	N/A
Total for all systems	\$3,024,967.21	\$2,807,073.26	N/A	\$1,805,908.92	N/A

Components

Actual Information Description	File Name	
Tall Tower (greater than		
500')	Component Description:	installation
		Services
	Amount:	\$104,475.00
	Component Description:	Extra Charges related to the new repack installation
		work
	Amount:	\$16,985.40
	Component Description:	UXA4-127DB 4FT 13GHz
	Amount:	\$8,679.90
	Component Description:	Rig tower to 1361' for side mount antenna work
	Amount:	\$34,825.00

Microwave Installation		
	Component Description:	WJHG-410-Install microwave equipment Existing Primary
	Amount:	Tower \$364.50
Major tower reinforcement /modifications	Information not provided.	
Structural engineering tower		
load study for well documented tower	Component Description:	Structural engineering Tower Load study
	Amount:	\$3,750.00
	Component Description: Amount:	Tower Mapping \$3,750.00
••••••••••••••••••••••••••••••••••••••		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Major tower reinforcement /modifications	Component Description:	Supply of new
		Dialight high
		intensity LED
		lighting system to replace existing
		red lights on tower
	Amount:	\$118,750.00
	Component Description:	Installation of
		tower lighting
		system at
		Youngstown tower

Structural engineering tower load study for well	Component Description:	Structural
documented tower		Analysis of
		Auxiliary Tower
	Amount:	\$6,625.00
	Component Description:	Structural
		engineering
		Tower Load study
	Amount:	\$1,750.00
	Component Description:	Tower Mapping
	Amount:	\$6,625.00
	Component Description:	Structural
		engineering
		Tower Load study
	Amount:	\$1,750.00
Tall Tower (greater than		
500')	Component Description:	Install antennas
		and line Existing
		Auxiliary Tower
	Amount:	\$18,153.95
	Component Description:	Tower rigging for
		interim antenna
		site
	Amount:	\$41,706.25
	Component Description:	Installation
		services: Provide
		tower crew
	Amount:	\$125,118.75

Outside Professional Services

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$177,515.00	\$168,582.50		\$113,065.60	
RF Engineer- Microwave Link	\$2,500.00	\$2,500.00	Estimate based upon anticipated billing by RF Engineer and commercial frequency coordination and PCN	\$2,170.00	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	\$2,105.00	\$2,332.50	Per invoices recieved	\$787.50	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	\$1,577.50	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	\$296.00	N/A

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$533.00	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$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	\$500.00	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,175.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$1,875.00	N/A
Project management of the transition	\$142,200.00	\$135,000.00	N/A	\$102,861.60	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$290.00	N/A

Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Sub-total	\$177,515.00	\$168,582.50	N/A	\$113,065.60	N/A
Total for all systems	\$3,024,967.21	\$2,807,073.26	N/A	\$1,805,908.92	N/A

Components

Actual Information Description	File Name	
RF Engineer-Microwave Link		
	Component Description:	Upon conclusion of
		PCN period for
		new 13 GHz
		duplex microwave
		link between Hwy
		20 and Scotts
		Ferry Rd towers,
		complete technical
		portions of FCC
		app.
	Amount:	\$625.00
	Component Description:	Develop technical
		parameters for
		new 13 GHz
		duplex microwave
		link between
		Highway 20 and
		Scotts Ferry Rd
		towers, engage
		frequency
		coordinator to
		identify frequency
		pair and issue
		PCN letters
	Amount:	\$1,545.00

Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Component Description: Amount:	Legal services \$296.00
	Amount:	STA \$1,377.50
	Component Description:	WJHG Attorney
	Amount:	through November 30, 2018 \$200.00
Attorney Fees - Prepare and File request for Special Temporary Authorization	Component Description:	For professional services rendered
	Amount:	7460-1 \$425.00
	Component Description:	Prepare and submit FAA Form
	Amount:	and notify reduction in overall height. \$187.50
	Component Description:	Processing form 7460-1 to request lighting change
	Amount:	that height decrease and lightning change were executed. \$175.00
7460 (Notice of Proposed Construction), if needed for height increase		interim repack operation at Highway 20 tower: Prepare FAA Form 7460-2 to notify

and File FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	WJHG Attorney CP \$533.00
Prepare request for Special Temporary Authorization	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Component Description: Amount:	Consulting Engineer \$500.00
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Develop final technical parameters for auxiliary sidemount antenna for use during transition to repack channel \$825.00
	Component Description: Amount:	Develop final ERP and parameters fo initial CP application \$1,350.00

Perform engineering study for new channel assignment and antenna development	Component Description:	Regarding request to change repack Ch-16 to a later transition phase, conduct channel study to determine any relevant dependencies or linked station, provide summary to counsel. \$200.00
	Component Description: Amount:	Perform engineering study for new channel assignment \$687.50
	Component Description: Amount:	Review scope of work regarding modification work of Hwy 20 tower, discuss with J McKee. \$187.50
	Component Description: Amount:	Perform engineering study for new channel assignment \$800.00
Project management of the transition	Component Description: Amount:	Project Management \$3,925.85
	Component Description: Amount:	Project management \$3,846.85

Component Description: Amount:	Project Management \$3,425.10
Component Description: Amount:	Project Management \$988.95
Component Description: Amount:	Project Management \$1,856.30
Component Description: Amount:	Project Management \$802.25
Component Description: Amount:	Project Management \$4,485.05
Component Description: Amount:	Project Management \$4,787.95
Component Description: Amount:	WJHG-510-Project Management \$4,050.00
Component Description: Amount:	Project Management \$3,235.25
Component Description: Amount:	Project Management \$2,905.70

Component Description: Amount:	Project Management \$1,800.00
Component Description: Amount:	Project Management \$5,007.90
Component Description: Amount:	Project Management \$3,890.65
Component Description: Amount:	Project management \$1,853.55
Component Description: Amount:	Project management \$2,471.90
Component Description: Amount:	Project mgt \$3,931.95
Component Description: Amount:	Project Management \$4,680.85
Component Description: Amount:	Project Management \$4,079.35
Component Description: Amount:	Project Management \$868.30

Component Description: Transition Related Project Management Costs \$2,850.00 Amount: **Component Description:** Project Management Amount: \$2,632.50 **Component Description:** Project Management Amount: \$5,465.95 **Component Description:** Project Management Amount: \$28.20 **Component Description:** Project Management Amount: \$2,556.05 **Component Description:** Project Management Amount: \$5,529.40 **Component Description:** Project Management Amount: \$5,349.80 **Component Description:** Project Management Amount: \$3,199.95 **Component Description:** Project Management Amount: \$3,150.75

	Component Description: Amount:	Project management \$2,442.65
	Component Description: Amount:	Project Management \$3,637.75
	Component Description: Amount:	Project Management \$3,124.90
Prepare and or review reimbursement form	Component Description:	Professional Services of Senior Specialist and Counsel
	Amount:	\$290.00
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	

Other Expenses

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$79,526.59	\$70,420.04		\$28,199.00	
Emergency Road Repair	\$5,070.00	\$5,070.00	Emergency road repair to reach out to final facility and complete repack work at the site location	\$5,070.00	N/A
Antenna Storage Cost	\$19,540.00	\$19,540.00	See WJHG storage quote from Dielectric	\$14,880.00	N/A
MVPD Notification of Channel Change	\$1,478.36	\$1,478.36	Wiley Rein, Inv #1468343, #1479796	\$1,478.36	per invoices received
Develop and air announcement of upcoming channel change	\$10,000.00	\$10,000.00	N/A	N/A	N/A
Equipment Storage	\$6,650.00	\$6,650.00	N/A	\$4,760.00	N/A
Equipment Delivery and Handling Charges	\$3,598.23	\$3,598.23	Main and alternate sites; H and E Equipment Services PO 1737	\$2,010.64	N/A

FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	\$0.00	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$20,000.00	\$20,000.00	For main and alternate sites	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$2,498.45	N/A	N/A	N/A
Sub-total	\$79,526.59	\$70,420.04	N/A	\$28,199.00	N/A
Total for all systems	\$3,024,967.21	\$2,807,073.26	N/A	\$1,805,908.92	N/A

Components

Actual Information Description	File Name	
Emergency Road Repair		
	Component Description:	Dozer, Rock, Delivery
	Amount:	\$5,070.00

Antenna Storage Cost	Component Description: Amount:	WJHG-610-Antenna Storage \$14,880.00
MVPD Notification of Channel Change	Component Description: Amount:	Professional Services \$371.43
	Component Description: Amount:	WJHG MVPD Notifications \$735.50
	Component Description:	Prepare and send updated MVPD notifications for new repack transition date.
	Amount:	\$371.43
Develop and air announcement of upcoming channel change	Information not provided.	
Equipment Storage	Component Description: Amount:	WJHG-610- Equipment Storage \$4,760.00

Equipment Delivery and Handling Charges	Component Description: Amount:	6000# Reach Lif RS634DK12379 \$812.41
	Component Description: Amount:	reach lift rental \$687.41
	Component Description: Amount:	Forklift rental \$510.82
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	
FCC Filing Fees - Form 2100 minor change CP application	Component Description: Amount:	Please deny this invoice N/A
FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
DTV Medical Facility Notification	Information not provided.	

Cost	Grand Total				
Information		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$3,024,967.21	\$2,807,073.26	\$1,805,908.92	

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

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

-	The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.	
an auth named	re, under penalty of perjury, that I am norized representative of the above- applicant for the Authorization(s) ed above.	Robert Folliard , III Assistant Secretary 10/07/2019

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		 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).
- 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.	
an au name	are, under penalty of perjury, that I am thorized representative of the above- d applicant for the Authorization(s) ied above.	Robert Folliard , III Assistant Secretary 10/07/2019

Attachments

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