Approved by OMB (Office of Management and Budget) 3060-1178

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: **73136** | Service: **DTV** | Call Sign: **WJHG-TV** | Channel: **16 (UHF)**

File Number: **0000028739**

FRN: **0018223693** | Date Submitted: **04/20/2021**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
GRAY TELEVISION LICENSEE, LLC Doing Business As: WJHG-TV	4370 PEACHTREE ROAD, NE ATLANTA, GA 30319 United States	+1 (404) 504-9828	allfcclms@gray.tv	Limited Liability Company

Reimbursement Contact Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Samuel 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	See attached narrative

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	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 and Type	Manufacturer	GatesAir
	Model	Maxiva ULXT-80AT UHV
	Year	2014

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

Primary Transmitter

Retuning Transmitter Costs

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

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	No
	Description	N/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A

	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other 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 Transmitter

Other Transmitter Cost Not Listed

Information not provided.

Interim Transmitter

New Transmitter Costs

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

	Justification for New Transmitter	Interim transmitter installed at the alternate transmitter site needed to continue broadcasting through the 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)	No
	Power	N/A
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	Yes
	Description	The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.

HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other 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 Transmitter

Other Transmitter Cost Not Listed

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

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	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
	Type	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 Antenna

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?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	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	

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 Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	6 1/8 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes

Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	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 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?	Yes
	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
	Type	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 broadcasting through the transition period

Interim Antenna

Other Antenna Costs

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	No
	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 Antenna

Other Antenna Cost Not Listed

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

Transmission Line

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

Primary Transmission Line

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1400 feet per run

Primary Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	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.

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Information not provided.

Interim Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	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 Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Sweep Existing Transmission Line	Sweep test of existing transmission line to determine if it is suitable for use

Tower Equipment And Rigging Costs

Section	Question	Response
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 Registration	Do you have a tower registration number?	No
	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

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:	Major Reinforcements needed

Auxiliary Tower

Tower Rigging Costs

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

Auxiliary Tower

Other Tower Expenses Not Listed

Information not provided.

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	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-
	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

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:	Major 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
Microwave Installation	Installation of Microwave Gear on towers

Outside Professional Services Costs

Section	Question	Response
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 Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
RF Engineer-Microwave Link	Develop technical parameters for new 13 GHz duplex microwave system and commercial frequency coordination

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	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

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

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-12	**$424,078.19**	**$466,616.36**		**$420,150.89**	
Generator Repairs	***$1,208.20***	$1,208.20	N/A	$0.00	N/A
Monitoring	***$5,975.00***	$5,975.00	N/A	$0.00	N/A
Microwave Radios	***$114,301.10***	$114,301.10	N/A	$96,767.79	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.	***$5,744.93***	$5,744.93	see Estimated Cost Justification WJHG-180-Electrical Service New Interim Transmitter v0	$5,744.93	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

Concrete Slab	***$1,712.00***	$1,712.00	N/A	$1,600.00	N/A
Microwave Components	***$21,636.96***	$21,636.96	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 GatesAir US0324131	$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	$689,340.20	$671,050.30	N/A	$624,584.83	N/A
Total for all systems	$3,027,921.71	$2,819,474.41	N/A	$1,844,069.53	N/A

Components

Actual Information Description	File Name
Generator Repairs	Information not provided.

Monitoring	Information not provided.	
Microwave Radios	**Component Description:** **Amount:**	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
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:**	Transmitter fans; wired and checked voltage to filter fans $1,000.50
	Component Description: **Amount:**	Surge Protector $2,954.50
	Component Description: **Amount:**	Transmitter - demo circuite no longer in use/ Wiring for transmitter $1,789.93

UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW	**Component Description:** **Amount:**	UXLTE-12 Transmitter $89,297.45
	Component Description: **Amount:**	Freight, Broadband PA, ULXT B-STOCK $16,585.01
	Component Description: **Amount:**	ULXTE-12 Transmitter $208,360.71
	Component Description: **Amount:**	Installation of roof structure over equipment tower site. $1,795.00
Concrete Slab	**Component Description:** **Amount:**	Construct 10X10 equipment pad. $1,600.00
Microwave Components	Information not provided.	

Other 50 kW mask filter	**Component Description:**	Channel change equipment
	Amount:	$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 Transmitter
	Amount:	$56,565.71
UHF and VHF - minor banding issues	**Component Description:**	Channel Change Equipment Channel Change Services Freight
	Amount:	$20,713.79
	Component Description:	Transmitter UXLTD-80 Retuning
	Amount:	$21,930.51
	Component Description:	PWA, AC Distribution
	Amount:	$1,727.63

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 TLP16B	**$124,130.00**	**$90,342.65**		**$34,233.50**	
Sweep Test Existing Antenna and Line	***$4,850.00***	$4,850.00	See attached quote	$2,425.00	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	$3,631.20	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$6,400.00	N/A
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	$89,400.00	$75,099.65	N/A	$21,777.30	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
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$5,398.54	N/A
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
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
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
Sub-total	$422,614.92	$384,050.26	N/A	$254,896.79	N/A

Total for all systems	$3,027,921.71	$2,819,474.41	N/A	$1,844,069.53	N/A

Components

Actual Information Description	File Name	
Sweep Test Existing Antenna and Line	**Component Description:** **Amount:**	Sweep Test of Existing Auxiliary Transmission Line $2,425.00
Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:** **Amount:**	Interim Antenna Side mount bracket $907.80
	Component Description: **Amount:**	Side mount brackets Interim Antenna $726.24
	Component Description: **Amount:**	Site mount bracket $1,089.36
	Component Description: **Amount:**	Side Mount Brackets for Lower Power Antenna $907.80

Sweep test of existing antenna	**Component Description:** **Amount:**	Sweep Test-Interim Antenna $1,280.00
	Component Description: **Amount:**	Sweep Test Auxiliary Antenna $1,600.00
	Component Description: **Amount:**	Sweep test Aux. Antenna $1,920.00
	Component Description: **Amount:**	Sweep Test New Interim Antenna $1,600.00
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 $4,151.94
	Component Description: **Amount:**	UHF Low Power Side Mount TV Antenna TLP16B $5,507.92
	Component Description: **Amount:**	Interim Antenna $6,609.51
	Component Description: **Amount:**	25% payment on Interim Antenna $5,507.93

Sweep Test Primary Chan 18 Antenna	**Component Description:** **Amount:**	Sweep test of existing primary antenna system $4,100.00
Sweep test of existing antenna	**Component Description:** **Amount:**	Sweep Test of New Primary Antenna $2,240.00
	Component Description: **Amount:**	New Primary Antenna, Sweep Test $1,600.00
	Component Description: **Amount:**	WJHG-210-Sweep test New Primary Antenna $1,558.54
	Component Description: **Amount:**	Please deny this component N/A

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: **Amount:**	Primary Antenna Side-Mount Brackets $6,132.00
	Component Description: **Amount:**	UHF - HIGH POWER SIDE MOUNT $61,069.74
	Component Description: **Amount:**	Please deny this invoice N/A
	Component Description: **Amount:**	Primary Antenna Elbow Complex $4,468.80
	Component Description: **Amount:**	Please deny this invoice N/A
	Component Description: **Amount:**	UHF High Power side mount $51,199.49

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	**Component Description:** **Amount:**	Elbow complex New Primary Antenna $3,823.99
	Component Description: **Amount:**	Elbow Complex for Primary Antenna $3,192.00
	Component Description: **Amount:**	Elbow Complex for Primary Antenna $4,468.80
Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:** **Amount:**	Side Mount Brackets for Primary Antenna $6,132.00
	Component Description: **Amount:**	Side Mount Brackets for Primary Antenna $4,380.00
	Component Description: **Amount:**	WJHG-310-New Primary Transmission Line $5,219.44

Cost Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmission Line	**$61,725.00**	**$53,324.65**		**$35,107.04**	
Sweep Existing Transmission Line	***$13,050.00***	$13,050.00	See vendor invoice	$0.00	N/A
Flexible Air Transmission Line - dielectric, 3"	$48,675.00	$40,274.65	See vendor quote JEHQ1257-01	$35,107.04	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	$248,681.51	N/A
Total for all systems	$3,027,921.71	$2,819,474.41	N/A	$1,844,069.53	N/A

Components

Actual Information Description	File Name
Sweep Existing Transmission Line	Information not provided.

Flexible Air Transmission Line - dielectric, 3"	**Component Description:**	Interim Transmission Line
	Amount:	$7,224.93
	Component Description:	New Auxiliary Transmission Line
	Amount:	$8,713.16
	Component Description:	Interim Antenna Transmission Line
	Amount:	$8,713.15
	Component Description:	Aux. Transmission Line
	Amount:	$10,455.80
	Component Description:	Tower Stand-Off - Fits Leg measuring 1-875" - ,4.75" diameter
	Amount:	$7,921.11

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

Cost Information

Tower Equipment and Rigging Costs

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower 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
Structural engineering tower load study for well documented tower	$12,600.00	$7,500.00	N/A	$7,500.00	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
Auxiliary Tower TOWER	**$644,100.00**	**$599,978.95**		**$360,226.95**	

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
Major tower reinforcement /modifications	$421,000.00	$400,000.00	N/A	$160,248.00	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	$3,027,921.71	$2,819,474.41	N/A	$1,844,069.53	N/A

Components

Actual Information Description	File Name

Tall Tower (greater than 500')	**Component Description:** **Amount:**	installation Services $104,475.00
	Component Description: **Amount:**	Extra Charges related to the new repack installation work $16,985.40
	Component Description: **Amount:**	UXA4-127DB 4FT 13GHz $8,679.90
	Component Description: **Amount:**	Rig tower to 1361' for side mount antenna work $34,825.00
Structural engineering tower load study for well documented tower	**Component Description:** **Amount:**	Structural engineering Tower Load study $3,750.00
	Component Description: **Amount:**	Tower Mapping $3,750.00
Microwave Installation	**Component Description:** **Amount:**	WJHG-410-Install microwave equipment Existing Primary 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:	$1,750.00
	Component Description:	Structural engineering Tower Load study
	Amount:	$1,750.00
	Component Description:	Tower Mapping
	Amount:	$6,625.00
	Component Description:	Structural Analysis of Auxiliary Tower
	Amount:	$6,625.00
Major tower reinforcement /modifications	**Component Description:**	Installation of tower lighting system at Youngstown tower
	Amount:	$41,498.00
	Component Description:	Supply of new Dialight high intensity LED lighting system to replace existing red lights on tower
	Amount:	$118,750.00

Tall Tower (greater than 500')	**Component Description:**	Tower rigging for interim antenna site
	Amount:	$41,706.25
	Component Description:	Install antennas and line Existing Auxiliary Tower
	Amount:	$18,153.95
	Component Description:	Installation services: Provide tower crew
	Amount:	$125,118.75

Cost Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cos Justificati
Outside Professional Services	**$177,515.00**	**$178,029.15**		**$154,650.65**	
Project management of the transition	$142,200.00	$144,446.65	The estimated cost has been adjusted to include all invoices submitted for reimbursement at this time.	$144,446.65	N/A
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
Prepare request for Special Temporary Authorization	$2,050.00	$1,500.00	N/A	$0.00	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
Address transition timing and coordination issues w/ other stations and wireless	$2,630.00	$2,500.00	N/A	$0.00	N/A
Prepare and or review reimbursement form	$2,630.00	$2,500.00	N/A	$290.00	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
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	$1,875.00	N/A
Sub-total	$177,515.00	$178,029.15	N/A	$154,650.65	N/A
Total for all systems	$3,027,921.71	$2,819,474.41	N/A	$1,844,069.53	N/A

Components

Actual Information Description	File Name
Project management of the transition	**Component Description:** Project Management **Amount:** $155.00 **Component Description:** Project Management **Amount:** $3,925.85 **Component Description:** Project management **Amount:** $2,471.90 **Component Description:** Project Management **Amount:** $2,407.65

Component Description: Project Management
Amount: $501.70

Component Description: Project Management
Amount: $4,001.60

Component Description: Project Management
Amount: $2,183.65

Component Description: Project Management
Amount: $5,349.80

Component Description: Project Management
Amount: $3,082.45

Component Description: Project Management
Amount: $77.50

Component Description: Project management
Amount: $1,853.55

Component Description: Project Management
Amount: $3,887.00

Component Description: Project Management
Amount: $1,856.30

Component Description: Project Management
Amount: $802.25

Component Description: Project Management
Amount: $4,485.05

Component Description: Project Management
Amount: $2,235.00

Component Description: Project Management
Amount: $4,787.95

Component Description: Project Managment
Amount: $3,379.30

Component Description: Project Management
Amount: $3,292.15

Component Description: Project Management
Amount: $5,007.90

Component Description: Project Management
Amount: $2,218.40

Component Description: Project Management
Amount: $5,529.40

Component Description: Project Management
Amount: $2,905.70

Component Description: WJHG-510-Project Management
Amount: $1,800.00

Component Description: Project Management
Amount: $4,079.35

Component Description: Project Management
Amount: $1,800.00

Component Description: Project Management
Amount: $2,150.65

Component Description: Project Management
Amount: $3,199.95

Component Description: Project Management
Amount: $2,382.00

Component Description: Project Management
Amount: $28.20

Component Description: Project Management
Amount: $3,637.75

Component Description: Project Management
Amount: $4,618.50

Component Description: Project Management
Amount: $3,425.10

Component Description: Project Management
Amount: $2,556.05

Component Description: Project management
Amount: $3,846.85

Component Description: Project Management
Amount: $868.30

Component Description: WJHG-510-Project Management
Amount: $4,050.00

Component Description: Transition Related Project Management Costs
Amount: $2,850.00

Component Description: Project Management
Amount: $3,890.65

Component Description: Project management
Amount: $2,518.30

Component Description: Project Management
Amount: $3,124.90

Component Description: Project management
Amount: $1,634.40

Component Description: Project mgt
Amount: $3,931.95

Component Description: Project Management
Amount: $5,465.95

Component Description: Project Management
Amount: $988.95

Component Description: Project Management
Amount: $281.25

Component Description: Project Management
Amount: $3,235.25

Component Description: Project Management
Amount: $3,150.75

Component Description: Project Management
Amount: $2,378.55

	Component Description: Project Management **Amount:** $4,680.85 **Component Description:** Project management **Amount:** $2,442.65 **Component Description:** Project Management **Amount:** $2,632.50
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
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:** **Component Description:** **Amount:**	Develop final technical parameters for auxiliary sidemount antenna for use during transition to repack channel $825.00 Develop final ERP and parameters for initial CP application $1,350.00
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	
Prepare and or review reimbursement form	**Component Description:** **Amount:**	Professional Services of Senior Specialist and Counsel $290.00

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

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	WJHG Attorney CP $533.00
Perform engineering study for new channel assignment and antenna development	**Component Description:** **Amount:**	Review scope of work regarding modification work of Hwy 20 tower, discuss with J McKee. $187.50
	Component Description: **Amount:**	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 $800.00
	Component Description: **Amount:**	Perform engineering study for new channel assignment $687.50

Cost Information

Other Expenses

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	**$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	Estimate is not exceeded.
Equipment Storage	***$6,650.00***	$6,650.00	N/A	$4,760.00	N/A
Develop and air announcement of upcoming channel change	***$10,000.00***	$10,000.00	N/A	$0.00	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

Disposal Costs (for equipment and other waste, net of any salvage value)	***$20,000.00***	$20,000.00	For main and alternate sites	$0.00	N/A
FCC Filing Fees - Special Temporary Authorization request	$195.00	$190.00	N/A	$0.00	N/A
DTV Medical Facility Notification	$11,550.00	$2,498.45	N/A	$0.00	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 - Form 2100 license to cover application	$335.00	$325.00	N/A	$0.00	N/A
Sub-total	$79,526.59	$70,420.04	N/A	$28,199.00	N/A
Total for all systems	$3,027,921.71	$2,819,474.41	N/A	$1,844,069.53	N/A

Components

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

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

Equipment Delivery and Handling Charges	**Component Description:** **Amount:**	6000# Reach Lift RS634DK123792 $812.41
	Component Description: **Amount:**	reach lift rental $687.41
	Component Description: **Amount:**	Forklift rental $510.82
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
DTV Medical Facility Notification	Information not provided.	
FCC Filing Fees - Form 2100 minor change CP application	**Component Description:** **Amount:**	Please deny this invoice N/A
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$3,027,921.71	$2,819,474.41	$1,844,069.53

Reimbursement Status

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

Certification

Section	Question	Response
Submission of Estimated Expenses Statements	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 above-named applicant for the Authorization(s) specified above.	**Robert Folliard , III .** *Assistant Secretary* 04/20/2021

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).	
	1. The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct. 3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (full power and Class A stations) and/or otherwise modify a television station’s facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

	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 above-named applicant for the Authorization(s) specified above.	**Robert Folliard , III .** *Assistant Secretary* 04/20/2021

Attachments