



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **13989** | Service: **DTV** | Call **WAVE** | Channel: **36 (UHF)** |
ID: | Sign:
File **0000025187**
Number:
FRN: **0018223693** | Date **04/07**
Submitted: **/2021**

Applicant Information

Applicant Name, Type, and Contact Information

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

Reimbursement Contact Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
The Preparer is same as the reimbursement contact.			

Broadcaster Information and Transition Plan

Question	Response
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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	Install interim antenna/ Line Remove top mounted antenna and install new antenna. Connect to existing dual broadband lines Install new main and backup transmitters. Combiner, Line, Antenna and tower systems cost divided 50% with WLKY

Transmitters

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

**Auxiliary
Transmitter****Add Transmitter Information**

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Emergency Backup
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	Ranger
	Year	2009
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	1.1 kW

**Auxiliary
Transmitter****New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	UAXTE-2R 37
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	1.2 kW
	Justification for New Transmitter	Existing transmitter can not be retuned EOL letter attached

**Auxiliary
Transmitter****Other Transmitter Costs**

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	150 kVA
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	Yes

	Description	Electrical drawings and other electrical work required for Auxiliary transmitter operation
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Auxiliary
Transmitter**

Other Transmitter Cost Not Listed

Information not provided.

**Primary
Transmitter**

Existing Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	Sigma
	Year	2003
	Type	Inductive Output Tube
	IOT Power Type	Single
	Power Capacity	30 kW

**Primary
Transmitter**

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-50
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	30.05 kW
	Justification for New Transmitter	Existing transmitter can not be retuned Headroom analysis attached

**Primary
Transmitter**

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	150 kVA
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	Yes

	Description	Electrical drawings and other electrical work required for Primary transmitter operation
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

Other Transmitter Cost Not Listed

Name	Description
Primary Transmitter - Additional Parts	Primary Transmitter - Additional Parts
Primary Transmitter - De-Installation Services	Primary Transmitter - De-Installation Services
Transmitter Installation	Primary Transmitter Installation
Primary Transmitter-Transmitter Room Repair	Primary Transmitter-Transmitter Room Repair

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?	Yes
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	2
	Number of Panels	51
	Design power capacity in use	50.0 %
	Lower Limit	545.00 MHz
	Upper Limit	695.00 MHz
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW

Manufacturer	
Model	ABBP14H4- HTOC5-26 /51
Year	2003

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

Facility ID	Call Sign
53939	WLKY

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?	Yes
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	Yes
	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	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Broadband Panel
	Number of Stations Supported	2
	Number of Panels/Bays	14
	Lower Limit	470.00 MHz
	Upper Limit	605.00 MHz
	Design power capacity in use	50.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	890.0 kW
	Manufacturer	

Model	TUM30-AP-S4-14/56H-R-2-T
Year	2019
Justification for New Antenna	Existing antenna can not be retuned Sweep data and ERI response attached

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	2
	Frequencies of channels supported	RF channel
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	Yes
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Broadband
	Feed Line Size	7 3/16 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	
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
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Enter a list of RF channel numbers.

RF Channel Number
14
36

**Primary
Antenna**

Other Antenna Cost Not Listed
Information not provided.

**Interim
Antenna**

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	Yes
	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	Broadband Slot
	Number of Stations Supported	2
	Number of Panels/Bays	24
	Lower Limit	470.00 MHz
	Upper Limit	680.00 MHz
	Design power capacity in use	100.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	680.0 kW
	Manufacturer	
	Model	TFU-WB24
	Year	2019

	Justification for New Antenna	Transition side mount antenna needed to enable removal of existing top mount antenna and installation of new repack channel capable antenna.
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Interim Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	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?	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?	No
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
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**Interim
Antenna**

Other Antenna Cost Not Listed

Information not provided.

Transmission Line

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

Primary Transmission Line**Existing Transmission Line**

Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	Yes
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Andrew
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	2
	Length	1000 feet per run

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

Facility ID	Call Sign
53939	WLKY

Primary Transmission Line **Other Transmission Line Expenses Not Listed**

Name	Description
Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line	Nitrogen required to dry transmission line

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	Rigid
	Diameter	6 1/8 inches
	Segment Length	Broadband
	Other Segment Length	
	Number of parallel runs	1
	Length	950 feet per run
	Justification for New Transmission Line	Interim during new antenna installation

Interim Transmission Line **Other Transmission Line Expenses Not Listed**

Name	Description
Interim Transmission Line Other Expenses	Other expenses required for operation of interim transmission line

**Tower
Equipment
And
Rigging
Costs**

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

**Primary
Tower**

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	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	No
	Is tower documented for structural analysis?	Yes
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1230057
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	38° 22' 08.4" N-
	Longitude (NAD83)	085° 49' 47.6" W-
	Overall Structure Height	960.95 feet
	Support Structure Height	899.92 feet
	Ground Elevation Above Mean Sea Level (AMSL)	982.93 feet

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	P & B Towers LLC
Date Constructed	03/11/2015

**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
53939	WLKY	DTV

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:	Minor Reinforcements needed

Primary Tower

Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	N/A
Helicopter Services Required	Are helicopter services required?	Yes

**Primary
Tower**

Other Tower Expenses Not Listed
Information not provided.

**Outside
Professional Services Costs**

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	595
	Explanation	Pattern analysis Antenna Spec Transmitter Spec Building drawings Installation Supervision Accounting Internal Legal
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)	No
	Negotiation of Lease and other Matter for Shared Locations	Yes
	Prepare or Review FCC Form 399 for Reimbursement	No
	Address transition timing and coordination issues w/ other stations and wireless providers	No
RF Field Engineering Services	Comprehensive coverage verification via field study	Yes
	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 Services not provided.

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	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
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
Security	Armed security provided by vendor to the equipment shelter site

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
Primary Transmitter ULXTE-50	\$1,078,162.15	\$1,121,274.40		\$1,020,411.29	
Transmitter Installation	<i>\$38,193.22</i>	\$38,193.22	Please see Estimated Cost Justification WAVE-110-1st Primary Transmitter - Primary Transmitter Installation v0	\$38,193.21	N/A
Primary Transmitter - De-Installation Services	<i>\$20,279.58</i>	\$20,279.58	Please see GatesAir change order quote Q-82799	\$20,279.58	N/A
Primary Transmitter-Room Repair	<i>\$7,810.00</i>	\$7,810.00	Please see Bowles Electrostatic Painting proposal dated 02-17-20	\$7,810.00	N/A
Primary Transmitter - Additional Parts	<i>\$316.85</i>	\$316.85	Please see Estimated Cost Justification WAVE-110-1st Primary Transmitter - Additional Parts v0	\$316.84	N/A

UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	\$947,000.00	\$1,011,193.79	see Estimated Cost Justification WAVE-110- 1st Primary Transmitter - UHF Liquid Cooled Solid State, 21-31 kW v0	\$937,387.29	N/A
Transformer 3 phase /480v - 150 KVA	\$25,550.00	\$6,368.46	Per Estimated Cost Justification WAVE-110- 1st Primary Transmitter - 3 Phase, 480 V, 150 KVA Transformer v0 Per GatesAir Quote Q- 73547 (estimates is the quoted amount minus the amount already reimbursed under the primary transmitter category)	\$6,368.46	N/A

Other Electrical Service: Electrical drawings and other electrical work required for Primary transmitter operation	\$812.50	\$812.50	Please see WAVE Primary Transmitter - Other Electrical Service Budget Revision Justification Letter	\$812.50	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	\$9,243.41	N/A
Auxiliary Transmitter UAXTE-2R 37	\$190,562.50	\$121,679.30		\$56,696.70	
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A
Transformer 3 phase /480v - 150 KVA	\$25,550.00	\$24,300.00	N/A	N/A	N/A
Other Electrical Service: Electrical drawings and other electrical work required for Auxiliary transmitter operation	\$812.50	\$812.50	Please see WAVE Auxiliary Transmitter - Other Electrical Service Budget Revision Justification Letter	\$812.50	N/A
UHF - Air Cooled Solid State Transmitter 1 - 2.5 kW	\$126,000.00	\$60,266.80	Quote attached (GA-00021721)	\$55,884.20	N/A
Sub-total	\$1,268,724.65	\$1,242,953.70	N/A	\$1,077,107.99	N/A

Total for all systems	\$3,469,934.47	\$3,905,588.86	N/A	\$2,992,263.48	N/A
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Components

Actual Information		
Description	File Name	
Transmitter Installation	Component Description:	Install New transmitter
	Amount:	\$759.76
	Component Description:	Labor, Material and Equipment.
	Amount:	\$37,228.24
	Component Description:	A/R 2% 10th NET 25th
	Amount:	\$205.21
Primary Transmitter - De-Installation Services	Component Description:	FIELD SERVICE,
	Amount:	\$20,279.58
Primary Transmitter-Transmitter Room Repair	Component Description:	Invoice for floor to be scraped to remove all flaking
	Amount:	\$7,810.00

Primary Transmitter -
Additional Parts

Component Description: A/R 2% 10th NET
25th
Amount: \$55.33

Component Description: A/R 2% 10th NET
25th
Amount: \$11.70

Component Description: A/R 2% 10th NET
25th
Amount: \$73.78

Component Description: 1/2-13 x 10ft ALL
THREAD GALV
Amount: \$143.31

Component Description: A/R 2% 10th NET
25th
Amount: \$32.72

UHF - Liquid Cooled Solid
State Transmitter 21 - 31 kW

Component Description: ULXTE-40
Transmitter per
Quote Q-73547
Amount: \$131,575.06

Component Description: ULXTE-40
Amount: \$70,272.97

Component Description: Transmitter
Amount: \$434,479.84

Component Description: Transmitter, Mask
Filter Saystem
Amount: \$210,382.52

Component Description: WAVE-110-1st
Primary
Transmitter - UHF
Liquid Cooled
Solid State, 21-31
kW
Amount: \$2,960.19

Component Description: ULXTE-40 per
Quote Q-73547
Amount: \$87,716.71

Component Description: Percent of
contract amount
Amount: \$37,228.24

Transformer 3 phase/480v - 150 KVA	Component Description:	WAVE-110-1st Primary Transmitter - 3 Phase, 480 V, 300 KVA Transformer
	Amount:	\$3,883.21
	Component Description:	WAVE-110-1st Primary Transmitter - 3 Phase, 480 V, 150 KVA Transformer
	Amount:	\$2,485.25
Other Electrical Service: Electrical drawings and other electrical work required for Primary transmitter operation	Component Description:	Project Management
	Amount:	\$812.50
Switchgear - industrial 800 amp	Component Description:	Catalyst 9300 24PT POE
	Amount:	\$9,243.41
Switchgear - industrial 800 amp	Information not provided.	
Transformer 3 phase/480v - 150 KVA	Information not provided.	
Other Electrical Service: Electrical drawings and other electrical work required for Auxiliary transmitter operation	Component Description:	WAVE-150-1st Auxiliary Transmitter - Other Electrical:
	Amount:	\$812.50 \$812.50

UHF - Air Cooled Solid State Transmitter 1 - 2.5 kW		
	Component Description:	Transmitter, Mask Filter Saystem, Electrical, Installation & Proof
	Amount:	\$7,891.62
	Component Description:	Transmitter
	Amount:	\$27,229.71
	Component Description:	UAXTE-2-E Transmitter
	Amount:	\$15,501.79
	Component Description:	UAXTE-2-E
	Amount:	\$5,261.08

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 TFU-WB24	\$157,180.00	\$156,850.00		\$6,400.00	
UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 680 kW input, directional,, horizontally polarized	<i>\$150,450.00</i>	\$150,450.00	Dielectric quote attached	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$6,400.00	N/A
Primary Antenna TUM30-AP-S4-14/56H-R-2-T	\$1,001,780.00	\$1,334,687.82		\$1,153,641.53	
Sweep test of existing antenna	\$6,730.00	\$25,600.00	Estimated Cost Justification WAVE-210-Primary Antenna - Sweep Test v0	\$11,840.00	N/A

UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, elliptically or circularly polarized	\$768,000.00	\$519,750.00	Please see WAVE Primary Antenna revised 700083CMZ-3.pdf	\$478,954.60	N/A
Elbow complex, broadband, at antenna input, per 7 3/16. feedline (if needed)	\$16,850.00	\$30,623.40	See Estimated Cost Justification WAVE-210-Primary Antenna - Elbow Complex V0	\$30,623.40	N/A
Combiner output splitting /switching for dual feed lines, if applicable	\$126,000.00	\$149,104.50	See Estimated Cost Justification WAVE-210-Primary Antenna - Combiner Output Splitting Switching for Dual Lines V0	\$23,689.50	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$609,609.92	Please see Estimated Cost Justification WAVE-210-Primary Antenna - New Combiner v2	\$608,534.03	N/A
Sub-total	\$1,158,960.00	\$1,491,537.82	N/A	\$1,160,041.53	N/A

Total for all systems	\$3,469,934.47	\$3,905,588.86	N/A	\$2,992,263.48	N/A
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Components

Actual Information	
Description	File Name
UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 680 kW input, directional,, horizontally polarized	Information not provided.
Sweep test of existing antenna	<div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>Repack Sweep</div> <div>\$6,400.00</div> </div>
Sweep test of existing antenna	<div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>WAVE-210- Primary Antenna - Sweep Test</div> <div>\$1,600.00</div> </div> <div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>Other</div> <div>\$6,400.00</div> </div> <div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>WAVE-210- Primary Antenna - Sweep Test</div> <div>\$3,200.00</div> </div> <div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>WAVE-210- Primary Antenna - Sweep Test</div> <div>\$640.00</div> </div>

UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, elliptically or circularly polarized	Component Description: Amount:	ANTENNA-UHF HIGH POWER TOP MOUNT \$129,937.50
	Component Description: Amount:	T/L 7-75 EIA Length 15' to 20' Fixed FLG \$3,799.50
	Component Description: Amount:	ANTENNA - UHF HIGH POWER TOP MOUNT \$259,875.00
	Component Description: Amount:	ANTENNA - UHF HIGH POWER TOP MOUNT \$51,975.00
	Component Description: Amount:	Conn 7-75 ANCH ADPTR DIE/MYAT \$9,040.60
	Component Description: Amount:	WAVE-210- WAVE-210- Primary Antenna - UHF High Power Top Mount, Two Station Broadband, E- POLL \$24,327.00

<p>Elbow complex, broadband, at antenna input, per 7 3/16. feedline (if needed)</p>	<table> <tr> <td data-bbox="719 174 1027 210">Component Description:</td><td data-bbox="1161 174 1374 286">WAVE-210- Primary Antenna - Elbow Complex</td></tr> <tr> <td data-bbox="719 297 831 333">Amount:</td><td data-bbox="1161 297 1278 333">\$7,155.00</td></tr> <tr> <td data-bbox="719 434 1027 470">Component Description:</td><td data-bbox="1161 434 1342 506">IN Sales Tax - Invoice 601014</td></tr> <tr> <td data-bbox="719 517 831 553">Amount:</td><td data-bbox="1161 517 1278 553">\$2,003.40</td></tr> <tr> <td data-bbox="719 654 1027 689">Component Description:</td><td data-bbox="1161 654 1374 766">WAVE-210- Primary Antenna - Elbow Complex</td></tr> <tr> <td data-bbox="719 777 831 813">Amount:</td><td data-bbox="1161 777 1294 813">\$14,310.00</td></tr> <tr> <td data-bbox="719 913 1027 949">Component Description:</td><td data-bbox="1161 913 1374 1025">WAVE-210- Primary Antenna - Elbow Complex</td></tr> <tr> <td data-bbox="719 1037 831 1072">Amount:</td><td data-bbox="1161 1037 1278 1072">\$2,862.00</td></tr> <tr> <td data-bbox="719 1173 1027 1209">Component Description:</td><td data-bbox="1161 1173 1374 1285">Elbow Complex 7- 75 Broadband Digit Wave/Wlky</td></tr> <tr> <td data-bbox="719 1296 831 1332">Amount:</td><td data-bbox="1161 1296 1278 1332">\$4,293.00</td></tr> </table>	Component Description:	WAVE-210- Primary Antenna - Elbow Complex	Amount:	\$7,155.00	Component Description:	IN Sales Tax - Invoice 601014	Amount:	\$2,003.40	Component Description:	WAVE-210- Primary Antenna - Elbow Complex	Amount:	\$14,310.00	Component Description:	WAVE-210- Primary Antenna - Elbow Complex	Amount:	\$2,862.00	Component Description:	Elbow Complex 7- 75 Broadband Digit Wave/Wlky	Amount:	\$4,293.00
Component Description:	WAVE-210- Primary Antenna - Elbow Complex																				
Amount:	\$7,155.00																				
Component Description:	IN Sales Tax - Invoice 601014																				
Amount:	\$2,003.40																				
Component Description:	WAVE-210- Primary Antenna - Elbow Complex																				
Amount:	\$14,310.00																				
Component Description:	WAVE-210- Primary Antenna - Elbow Complex																				
Amount:	\$2,862.00																				
Component Description:	Elbow Complex 7- 75 Broadband Digit Wave/Wlky																				
Amount:	\$4,293.00																				
<p>Combiner output splitting /switching for dual feed lines, if applicable</p>	<table> <tr> <td data-bbox="719 1462 1027 1498">Component Description:</td><td data-bbox="1161 1462 1342 1534">IN Sales Tax- Invoice 567007</td></tr> <tr> <td data-bbox="719 1545 831 1581">Amount:</td><td data-bbox="1161 1545 1278 1581">\$9,754.50</td></tr> <tr> <td data-bbox="719 1682 1027 1718">Component Description:</td><td data-bbox="1161 1682 1374 1870">WAVE-210- Primary Antenna - Combiner Output Splitting/Switching for Dual Lines</td></tr> <tr> <td data-bbox="719 1881 831 1917">Amount:</td><td data-bbox="1161 1881 1294 1917">\$13,935.00</td></tr> </table>	Component Description:	IN Sales Tax- Invoice 567007	Amount:	\$9,754.50	Component Description:	WAVE-210- Primary Antenna - Combiner Output Splitting/Switching for Dual Lines	Amount:	\$13,935.00												
Component Description:	IN Sales Tax- Invoice 567007																				
Amount:	\$9,754.50																				
Component Description:	WAVE-210- Primary Antenna - Combiner Output Splitting/Switching for Dual Lines																				
Amount:	\$13,935.00																				

New combiner, cost per channel (without antenna)	Component Description: Amount:	WAVE-210- Primary Antenna - Combiner Output Splitting/Switching for Dual Lines \$34,837.50
	Component Description: Amount:	WAVE-210- Primary Antenna - Combiner Output Splitting/Switching for Dual Lines \$69,675.00
	Component Description: Amount:	Combiner \$56,640.65
	Component Description: Amount:	Combiner \$52,745.30
	Component Description: Amount:	Combiner RF Accessories Stage 2,3,5 Services \$162,690.74
	Component Description: Amount:	Combiner \$162,690.74
	Component Description: Amount:	A. Combiner \$69,254.10

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	\$220,650.00	\$141,561.80		\$2,308.77	
Interim Transmission Line Other Expenses	<i>\$250.00</i>	\$250.00	Please see WAVE Interim Transmission Line Other Expenses Budget Revision Justification Letter	\$250.00	N/A
Rigid Transmission Line - copper, 6 1/8" broadband	\$220,400.00	\$141,311.80	Quote attached	\$2,058.77	N/A
Primary Transmission Line	\$26,701.38	\$26,701.38		\$24,778.48	
Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line	<i>\$26,701.38</i>	\$26,701.38	see Estimated Cost Justification WAVE-310-Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line v3	\$24,778.48	N/A
Sub-total	\$247,351.38	\$168,263.18	N/A	\$27,087.25	N/A

Total for all systems	\$3,469,934.47	\$3,905,588.86	N/A	\$2,992,263.48	N/A
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Components

Actual Information		
Description	File Name	
Interim Transmission Line Other Expenses	Component Description:	Other
	Amount:	\$250.00

Rigid Transmission Line - copper, 6 1/8" broadband	<div> <div>Component Description:</div> <div>RG-223/U 50 OHM COAX- BTACKJEACKE</div> </div> <div> <div>Amount:</div> <div>\$1,620.00</div> </div>
	<div> <div>Component Description:</div> <div>Rent Cyl Ind Large Acetylene</div> </div> <div> <div>Amount:</div> <div>\$33.54</div> </div>
	<div> <div>Component Description:</div> <div>Cylinder Rental (acetylene, nitrogen, oxygen, other)</div> </div> <div> <div>Amount:</div> <div>\$36.88</div> </div>
	<div> <div>Component Description:</div> <div>Nitrogen Industrial 200 CGA 580</div> </div> <div> <div>Amount:</div> <div>\$163.82</div> </div>
	<div> <div>Component Description:</div> <div>Acetylene IND</div> </div> <div> <div>Amount:</div> <div>\$173.51</div> </div>
	<div> <div>Component Description:</div> <div>Invoice moved to correct budget category.</div> </div> <div> <div>Amount:</div> <div>N/A</div> </div>
	<div> <div>Component Description:</div> <div>Rent Cyl Ind Large Acetylene</div> </div> <div> <div>Amount:</div> <div>\$31.02</div> </div>
Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line	

Component Description:	WAVE-380-Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line
Amount:	\$1,595.40

Component Description:	WAVE-380-Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line
Amount:	\$3,776.50

Component Description:	WAVE-380-Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line
Amount:	\$4,750.50

Component Description:	IN Sales Tax - Invoice 648005
Amount:	\$253.05

Component Description:	WAVE-380-Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line
Amount:	\$7,553.00

Component Description:	WAVE-380-Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line
Amount:	\$1,510.60

Component Description:	Rent Cyl Ind Large Nitrogen
Amount:	\$70.91

Component Description:	Nitrogen Industrial 200
Amount:	\$84.43

Component Description:	IN Sales Tax - Invoice 640002
Amount:	\$598.50

Component Description:	"WAVE-310- Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line"
Amount:	\$26.49

Component Description:	Rent Cyl Ind Large Acetylene
Amount:	\$96.03

Component Description:	T/L 7-75 EIA Lenght 5' to 10' Fixed Flg
Amount:	\$3,615.00

Component Description:	WAVE-310-Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line
Amount:	\$40.46

Component Description:	IN Sales Tax
Amount:	\$744.52

Component Description:	"WAVE-310- Primary Transmission Line - Other Expenses Not Listed - Nitrogen for Transmission Line-"
Amount:	\$63.09

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 GTOWER	\$495,100.00	\$661,776.00		\$470,861.50	
Tall Tower (greater than 500')	\$210,500.00	\$385,776.00	Please See Estimated Cost Justification WAVE-410- Existing Primary Tower - Tower Rigging, Tall Tower v0	\$348,199.00	N/A
Tower Helicopter Lift	<i>\$114,000.00</i>	\$114,000.00	Please see attached Tower King II, Inc. Proposal C-19-010-2	\$114,000.00	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$150,000.00	N/A	N/A	N/A
Structural engineering tower load study for well documented tower	\$12,600.00	\$12,000.00	N/A	\$8,662.50	N/A
Sub-total	\$495,100.00	\$661,776.00	N/A	\$470,861.50	N/A
Total for all systems	\$3,469,934.47	\$3,905,588.86	N/A	\$2,992,263.48	N/A

Components

Actual Information		
Description	File Name	
Tall Tower (greater than 500')	Component Description:	Tower Service
	Amount:	\$71,550.00
	Component Description:	Interim Antenna Installation
	Amount:	\$29,851.00
	Component Description:	REPAIR YARD
	Amount:	\$2,423.00
	Component Description:	Tower Service
	Amount:	\$102,950.00
	Component Description:	Customer deposit for Repack Interim Antenna Installation Services
	Amount:	\$34,925.00
	Component Description:	Tower service
	Amount:	\$106,500.00

Tower Helicopter Lift	<table> <tr> <td data-bbox="721 174 1027 210">Component Description:</td><td data-bbox="1161 174 1378 327">WAVE-410- Existing Primary Tower - Helicopter Lift-</td></tr> <tr> <td data-bbox="721 336 829 371">Amount:</td><td data-bbox="1161 336 1295 371">\$28,450.00</td></tr> <tr> <td data-bbox="721 474 1027 510">Component Description:</td><td data-bbox="1161 474 1378 627">WAVE-410- Existing Primary Tower - Helicopter Lift-</td></tr> <tr> <td data-bbox="721 636 829 672">Amount:</td><td data-bbox="1161 636 1295 672">\$43,500.00</td></tr> <tr> <td data-bbox="721 775 1027 810">Component Description:</td><td data-bbox="1161 775 1378 927">WAVE-410- Existing Primary Tower - Helicopter Lift</td></tr> <tr> <td data-bbox="721 936 829 972">Amount:</td><td data-bbox="1161 936 1295 972">\$42,050.00</td></tr> </table>	Component Description:	WAVE-410- Existing Primary Tower - Helicopter Lift-	Amount:	\$28,450.00	Component Description:	WAVE-410- Existing Primary Tower - Helicopter Lift-	Amount:	\$43,500.00	Component Description:	WAVE-410- Existing Primary Tower - Helicopter Lift	Amount:	\$42,050.00
Component Description:	WAVE-410- Existing Primary Tower - Helicopter Lift-												
Amount:	\$28,450.00												
Component Description:	WAVE-410- Existing Primary Tower - Helicopter Lift-												
Amount:	\$43,500.00												
Component Description:	WAVE-410- Existing Primary Tower - Helicopter Lift												
Amount:	\$42,050.00												
Minor tower reinforcement /modifications	Information not provided.												
Structural engineering tower load study for well documented tower	<table> <tr> <td data-bbox="721 1214 1027 1249">Component Description:</td><td data-bbox="1161 1214 1378 1330">Tower Service - Mapping of WAVE Tower for Repack</td></tr> <tr> <td data-bbox="721 1339 829 1375">Amount:</td><td data-bbox="1161 1339 1279 1375">\$5,500.00</td></tr> <tr> <td data-bbox="721 1478 1027 1514">Component Description:</td><td data-bbox="1161 1478 1353 1594">CLASS IV RIGGING PLAN REVIEW</td></tr> <tr> <td data-bbox="721 1603 829 1639">Amount:</td><td data-bbox="1161 1603 1279 1639">\$3,000.00</td></tr> <tr> <td data-bbox="721 1742 1027 1778">Component Description:</td><td data-bbox="1161 1742 1378 1930">WAVE-410- Existing Primary Tower - Structural Engineering Tower Load Study</td></tr> <tr> <td data-bbox="721 1939 829 1975">Amount:</td><td data-bbox="1161 1939 1257 1975">\$162.50</td></tr> </table>	Component Description:	Tower Service - Mapping of WAVE Tower for Repack	Amount:	\$5,500.00	Component Description:	CLASS IV RIGGING PLAN REVIEW	Amount:	\$3,000.00	Component Description:	WAVE-410- Existing Primary Tower - Structural Engineering Tower Load Study	Amount:	\$162.50
Component Description:	Tower Service - Mapping of WAVE Tower for Repack												
Amount:	\$5,500.00												
Component Description:	CLASS IV RIGGING PLAN REVIEW												
Amount:	\$3,000.00												
Component Description:	WAVE-410- Existing Primary Tower - Structural Engineering Tower Load Study												
Amount:	\$162.50												

Cost
Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$207,870.00	\$256,929.72		\$200,842.59	
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	N/A	\$37,523.53	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	N/A	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$471.00	Please see WAVE Attorney Other Matters Budget Revision Justification Cover Letter	\$471.00	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$0.00	N/A

Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	\$800.00	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	\$370.83	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,950.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$6,018.51	N/A
Project management of the transition	\$94,010.00	\$152,708.72	The estimated cost has been adjusted to include all invoices submitted for reimbursement at this time.	\$152,708.72	N/A
Sub-total	\$207,870.00	\$256,929.72	N/A	\$200,842.59	N/A
Total for all systems	\$3,469,934.47	\$3,905,588.86	N/A	\$2,992,263.48	N/A

Components

Actual Information
Description

File Name

Comprehensive coverage verification via field study, if needed	Component Description:		Antenna Pattern Reconstitution, Horizontal Polarization,
	Amount:		\$17,916.53
	Component Description:		Ground-Based (ITU 10m/FCC 9.1 m) Field Strength
	Amount:		\$19,607.00
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.		
Attorney Fees - Negotiation of lease and other matters for shared locations	Component Description:		Total Professional Services
	Amount:		\$471.00
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.		
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.		
Prepare request for Special Temporary Authorization	Component Description:		Consulting Engineer
	Amount:		\$800.00

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	<table> <tr> <td>Component Description:</td><td>WAVE-530-RF Eng - License To Cover Application (Main)</td></tr> <tr> <td>Amount:</td><td>\$120.83</td></tr> </table>	Component Description:	WAVE-530-RF Eng - License To Cover Application (Main)	Amount:	\$120.83
Component Description:	WAVE-530-RF Eng - License To Cover Application (Main)				
Amount:	\$120.83				
	<table> <tr> <td>Component Description:</td><td>WAVE-530-RF Eng - License To Cover Application</td></tr> <tr> <td>Amount:</td><td>\$250.00</td></tr> </table>	Component Description:	WAVE-530-RF Eng - License To Cover Application	Amount:	\$250.00
Component Description:	WAVE-530-RF Eng - License To Cover Application				
Amount:	\$250.00				
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	<table> <tr> <td>Component Description:</td><td>FCC Form 2100 Construction Permit Application</td></tr> <tr> <td>Amount:</td><td>\$2,250.00</td></tr> </table>	Component Description:	FCC Form 2100 Construction Permit Application	Amount:	\$2,250.00
Component Description:	FCC Form 2100 Construction Permit Application				
Amount:	\$2,250.00				
	<table> <tr> <td>Component Description:</td><td>WAVE-530-RF Eng - Construction Permit Application</td></tr> <tr> <td>Amount:</td><td>\$700.00</td></tr> </table>	Component Description:	WAVE-530-RF Eng - Construction Permit Application	Amount:	\$700.00
Component Description:	WAVE-530-RF Eng - Construction Permit Application				
Amount:	\$700.00				
Perform engineering study for new channel assignment and antenna development	<table> <tr> <td>Component Description:</td><td>Engineering study work for new channel assignment and antenna development</td></tr> <tr> <td>Amount:</td><td>\$125.00</td></tr> </table>	Component Description:	Engineering study work for new channel assignment and antenna development	Amount:	\$125.00
Component Description:	Engineering study work for new channel assignment and antenna development				
Amount:	\$125.00				
	<table> <tr> <td>Component Description:</td><td>"Review post- construction drone- based antenna pattern measurement report of repack Ch- 36 main antenna."</td></tr> <tr> <td>Amount:</td><td>\$2,375.00</td></tr> </table>	Component Description:	"Review post- construction drone- based antenna pattern measurement report of repack Ch- 36 main antenna."	Amount:	\$2,375.00
Component Description:	"Review post- construction drone- based antenna pattern measurement report of repack Ch- 36 main antenna."				
Amount:	\$2,375.00				

Component Description:	WAVE-530-RF Eng - Engineering Study for New Channel Assignment
Amount:	\$418.50

Component Description:	Review various materials
Amount:	\$1,200.00

Component Description:	WAVE-530-RF Eng - Engineering Study for New Channel Assignment
Amount:	\$158.34

Component Description:	Engineering study work for new channel assignment and antenna development;
Amount:	\$250.00

Component Description:	Engineering study work for new channel assignment and antenna development
Amount:	\$1,375.00

Component Description:	WAVE-530-RF Eng - Engineering Study for New Channel Assignment
Amount:	\$116.67

Project management of the transition

Component Description:	Project management
Amount:	\$7,256.60

Component Description:	Project Management
Amount:	\$48.76

Component Description:	Project Management
Amount:	\$2,713.15

Component Description:	Project Management
Amount:	\$4,384.10

Component Description:	Project management
Amount:	\$3,142.70

Component Description:	Project Management
Amount:	\$3,176.20

Component Description:	Project Management
Amount:	\$415.80

Component Description:	Project Management
Amount:	\$4,748.75

Component Description:	Project management
Amount:	\$8,186.35

Component Description:	Project Management
Amount:	\$84.70

Component Description:	Project Management
Amount:	\$4,158.70

Component Description:	Project Management
Amount:	\$3,158.80

Component Description:	Project Management
Amount:	\$5,274.65

Component Description:	Project Management
Amount:	\$338.81

Component Description:	Attend FCC Equipment Audit On Site
Amount:	\$927.88

Component Description:	Project Management
Amount:	\$87.26

Component Description:	Project Management
Amount:	\$3,969.55

Component Description:	Project Management
Amount:	\$3,777.30

Component Description:	Project Management
Amount:	\$2,145.70

Component Description:	Project Management
Amount:	\$43.63

Component Description:	Project Management
Amount:	\$2,963.45

Component Description:	Project Management
Amount:	\$4,216.85

Component Description:	Project Management
Amount:	\$4,222.05

Component Description:	Project Management
Amount:	\$2,678.35

Component Description:	Project Management
Amount:	\$3,544.40

Component Description:	Project Management
Amount:	\$6,348.90

Component Description:	SYSTEM, WNDU U32 D42 PH1
Amount:	\$110.36

Component Description:	Project Management
Amount:	\$3,614.95

Component Description:	Repack Engineering
Amount:	\$795.15

Component Description:	Project Management
Amount:	\$87.26

Component Description:	WAVE-510-Project Management:
	\$723.80
Amount:	\$723.80

Component Description:	Project Management
Amount:	\$5,321.30

Component Description:	Project Management
Amount:	\$110.36

Component Description:	Project Management
Amount:	\$4,897.00

Component Description:	Project management
Amount:	\$6,591.90

Component Description:	Project Management
Amount:	\$4,188.25

Component Description:	Project management
Amount:	\$8,223.05

Component Description:	Project Management
Amount:	\$13,275.45

Component Description:	Project Management
Amount:	\$1,463.00

Component Description:	Project Management
Amount:	\$7,216.15

Component Description:	Project Management
Amount:	\$5,507.15

Component Description:	Project Management
Amount:	\$1,965.45

Component Description:	Project Management
Amount:	\$6,604.75

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	\$91,928.44	\$84,128.44		\$56,322.62	
Security	<i>\$3,386.26</i>	\$3,386.26	Armed security provided by vendor to the equipment shelter site. Please see multiple invoices.	\$3,386.26	N/A
Equipment Storage	<i>\$30,500.00</i>	\$30,500.00	Estimate for Dielectric on site antenna storage Dielectric letter attached	\$5,842.20	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$2,849.44</i>	\$2,849.44	see Estimated Cost Justification WAVE-610-Disposal Costs v2	\$2,551.46	N/A
Equipment Delivery and Handling Charges	<i>\$40,792.74</i>	\$40,792.74	see Estimated Cost Justification WAVE-610-Equipment Delivery and Handling v6	\$40,792.70	N/A
MVPD Notification of Channel Change	<i>\$0.00</i>	\$0.00	N/A	N/A	N/A

Develop and air announcement of upcoming channel change	\$2,850.00	\$2,850.00	estimate for on air rescan announcement production. Quote attached	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$3,750.00	Group quote attached	\$3,750.00	N/A
Sub-total	\$91,928.44	\$84,128.44	N/A	\$56,322.62	N/A
Total for all systems	\$3,469,934.47	\$3,905,588.86	N/A	\$2,992,263.48	N/A

Components

Actual Information	
Description	File Name
Security	Component Description: Guard Services Amount: \$1,760.86
	Component Description: Security Services Amount: \$1,625.40
Equipment Storage	Component Description: Sale 40 SC 1-Tripper Amount: \$5,842.20

Disposal Costs (for equipment and other waste, net of any salvage value)	<div> Component Description: Pickup Service</div> <div> Amount: \$645.29</div>
	<div> Component Description: 1 Waste Container 8 Cu Yd, 2 Lifts Per Week</div> <div> Amount: \$361.31</div>
	<div> Component Description: 1 Waste Container</div> <div> Amount: \$413.41</div>
	<div> Component Description: 1 Waste Container</div> <div> Amount: \$72.76</div>
	<div> Component Description: Wave 3 TV 725 S Floyd st CS A171992022</div> <div> Amount: \$129.78</div>
	<div> Component Description: VACUUM FEE WITH NO SOLIDS</div> <div> Amount: \$694.40</div>
	<div> Component Description: Pickup Service</div> <div> Amount: \$234.51</div>
Equipment Delivery and Handling Charges	<div> Component Description: Other Freight and Shipping</div> <div> Amount: \$6,217.99</div>

Component Description:	10K 55' CAB SHOOTING BOOM FORKLIFT
Amount:	\$3,380.07

Component Description:	Other Freight and Shipping
Amount:	\$2,010.78

Component Description:	Single Manlift
Amount:	\$1,166.26

Component Description:	Pallet Jack
Amount:	\$536.36

Component Description:	IN Sales Tax - Invoice 649008
Amount:	\$140.75

Component Description:	IN Sales Tax - Invoice 614039
Amount:	\$908.34

Component Description:	Other Freight and Shipping
Amount:	\$12,976.31

Component Description:	15' Single Manlift S/P
Amount:	\$914.64

Component Description:	10K 55' shooting boom forklift
Amount:	\$3,638.06

Component Description:	1 Waste Container 6 Cu Yd
Amount:	\$700.57

Component Description:	15' Single Manlift S/P
Amount:	\$1,198.89

Component Description:	15' SINGLE MANLIFT S/P
Amount:	\$858.64

Component Description:	IN Sales Tax - Invoice 641033
Amount:	\$435.25

Component Description:	25-26' ELECT SCISSOR NARROW
Amount:	\$1,188.34

Component Description:	15' SINGLE MANLIFT S/P
Amount:	\$460.44

Component Description:	10K 55' CAB Shooting Boom Forklift
Amount:	\$4,061.01

Component Description:	Equip
Amount:	\$4,061.01

Component Description:	Equip
Amount:	\$1,198.89

MVPD Notification of Channel Change	Information not provided.
Develop and air announcement of upcoming channel change	Information not provided.
DTV Medical Facility Notification	<div> <div> Component Description: </div> <div>Medical Notification Mailing</div> </div> <div> <div> Amount: </div> <div>\$3,750.00</div> </div>

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$3,469,934.47	\$3,905,588.86	\$2,992,263.48

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

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	<p>WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.</p>	
		<ol style="list-style-type: none"> 1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount. 	

4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

<p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Robert Folliard , III . <i>Assistant Secretary</i></p> <p>04/07/2021</p>

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 IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		<ol style="list-style-type: none"> 1. The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct. 3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 	

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

<p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Robert Folliard , III . <i>Assistant Secretary</i></p> <p>04/07/2021</p>

Attachments