



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **43170** | Service: **DTV** | Call **WMAE-TV** | Channel:  
ID: | Sign:  
**9 (High VHF)** | File **0000026661**  
Number:  
FRN: **0001739002** | Date **01/26**  
Submitted: **/2021**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>MISSISSIPPI AUTHORITY FOR EDUCATIONAL TV</b> Doing Business As: MISSISSIPPI AUTHORITY FOR EDUCATIONAL TV	Greg Wells 3825 RIDGEWOOD ROAD JACKSON, MS 39211 United States	+1 (601) 432- 6197	Greg. Wells@mpbonline. org	Government Entity

## 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
<b>Robert Gehman</b> <i>ConsultingEngineer Kessler and Gehman Associates, Inc.</i>	Robert Gehman 507 NW 60 Street Suite D Gainesville, FL 32607 United States	+1 (352) 332-3157	bob@kesslerandgehman. 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.	No
Briefly describe transition plan	Replace transmitter using existing antenna and line.

**Transmitters**

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

**Primary  
Transmitter**

**Existing Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	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
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	PLATINUM PTCD10P1
	Year	2007
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	2.2 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?	No
	Manufacturer	
	Model	LPTV-5000-4000V3
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	4 kW
	Justification for New Transmitter	The manufacturer of the existing transmitter advises that the transmitter cannot be re-tuned to the assigned channel. See attachment.

**Primary  
Transmitter**

**Other Transmitter Costs**

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

	Size	N/A
	Length	N/A
	Other Electrical Service	No
	Description	N/A
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	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
<b>Electrical</b>	Electrical
<b>Standby Exciter and Switch</b>	Standby Exciter with Automatic Change Over Switch
<b>Additional Interior RF System</b>	Interior RF System Existing Transmitter to Interim Transmission line

**Antennas**

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

**Primary  
Antenna****Existing Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	Retune Existing
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Other
	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	Batwing
ERP: (Effective Radiated Power)	31.0 kW
Manufacturer	Dielectric
Model	TAB-12H
Year	1990

**Primary  
Antenna**

**Adjustment to Existing Antenna**

Section	Question	Response
<b>Sweep Test of Existing Antenna</b>	Do you need a sweep test of existing antenna?	Yes

**Primary  
Antenna**

**Other Antenna Costs**

Section	Question	Response
<b>Combiner for Shared Antenna</b>	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	

**Primary  
Antenna**

**Other Antenna Cost Not Listed**

Name	Description
<b>Antenna Re-tune</b>	Antenna Re-tune
<b>Rigging</b>	Rigging to replace elbow complex which was found to be mismatched

**Auxiliary  
Antenna****Add Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Interim
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this antenna currently shared with any other stations?	No
	Is this antenna directional?	No
	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	Horizontal
	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) .....	30.0 kW



Manufacturer	
Model	ALV4V7- HSO-9
Year	2021

**Auxiliary  
Antenna****New Antenna Costs**

Section	Question	Response
<b>New Antenna Description</b>	Use	Auxiliary (Backup)
	Description of Use	Interim
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
<b>New Antenna Manufacturer and Types</b>	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) .....	30.0 kW
	Manufacturer	
	Model	ALV4V7HSO9

Year	2021
Justification for New Antenna	Interim antenna to keep station on the air while main antenna is being replaced and during tower work

## Auxiliary Antenna

### Other Antenna Costs

Section	Question	Response
<b>Combiner for Shared Antenna</b>	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
<b>Elbow Complex</b>	Do you require the separate purchase of the Elbow Complex?	No
	Broadband or Single Channel?	N/A
	Feed Line Size	N/A
<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes

**Auxiliary  
Antenna**

**Other Antenna Cost Not Listed**

Name	Description
Patch Panel	Interior line system with patch panel

**Primary  
Antenna**

**Add 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 this antenna currently shared with any other stations?	No
	Is this antenna directional?	No
	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	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) .....	35.0 kW

Manufacturer	
Model	ATW13V2- HTO-9H
Year	2021

## 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?	No
	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	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)	30.0 kW
	Manufacturer	
	Model	ATW13V2HTO9H
	Year	2021

	Justification for New Antenna	Attempt to reuse existing channel 12 batwing antenna resulted in coverage complaints on channel 9.
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## Primary Antenna

### Other Antenna Costs

Section	Question	Response
<b>Combiner for Shared Antenna</b>	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
<b>Elbow Complex</b>	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	3 1/8 inches inches
<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for a high power antenna?	
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes



Primary 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
<b>Existing Transmission Line Description</b>	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
<b>Existing Transmission Line Manufacturer and Type</b>	Manufacturer	
	Type	Rigid
	Diameter	3 1/8 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	550 feet per run

**Primary** **New Transmission Line**  
**Transmission Line**

Section	Question	Response
<b>New Transmission Line Costs</b>	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Flexible Air
	Diameter	1 5/8 inches
	Other Diameter	N/A
	Segment Length	N/A
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	450 feet per run
	Justification for New Transmission Line	Interim antenna system to keep station on the air during replacement of main antenna and tower work.

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

Information not provided.

**Tower Equipment And Rigging Costs**

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

**Primary Tower**

**Existing Tower**

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	No
	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?	Yes
	ASR Number	1041045
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	34° 40' 00.3" N-
	Longitude (NAD83)	088° 45' 05.2" W-
	Overall Structure Height	578.08 feet
	Support Structure Height	499.99 feet
	Ground Elevation Above Mean Sea Level (AMSL)	717.84 feet

	Structure Type	TOWER - Free Standing or Guyed Structure
	Tower Owner	Mississippi Authority for Educational Television
	Date Constructed	12/15/2004

**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
43190	WMAE-FM	FM

## Primary Tower

### Tower Modification Costs

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

## Primary Tower

### Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	N/A

<b>Helicopter Services Required</b>	Are helicopter services required?	No
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**Primary  
Tower**

**Other Tower Expenses Not Listed**  
Information not provided.

**Outside  
Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	Yes
	Number of Hours	204
	Explanation	Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 20 hrs (\$3,000 at \$150/hr), & a new OES category has been created & funded with the money removed from PM.
<b>Outside RF consulting Engineering Services</b>	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	No
	Quantity	N/A
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
<b>Attorney and Other Outside Consulting Services</b>	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	No
	Quantity	N/A
	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	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	No

RF exposure measurements	No
Additional Field Engineering Service	Yes
Number of Days	13
Justification	It will be necessary to survey the site, plan the equipment, develop specifications for purchasing, and oversee multiple vendor RF projects. Station does not have available personnel or personnel trained in such services.

**Outside Professional Services Costs**

**Other Professional Services Expenses Not Listed**

Name	Description
<b>Other Legal Services</b>	Other Legal Services related to the DTV Repack
<b>Other Engineering Services</b>	Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 20 hrs (\$3,000 at \$150 /hr), & a new OES category has been created & funded with the money removed from PM.

## Other Expenses

Section	Question	Response
<b>AM Pattern Disturbance</b>	Is an Impact Study needed?	No
	Is Remediation needed?	No
<b>Facility Expenses</b>	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
<b>Permit and Filing Costs</b>	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
<b>Other Miscellaneous Expenses</b>	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

<b>Other Expenses</b>	<b>Other Expenses Not Listed</b>
	Information not provided.

## 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
<b>Primary Transmitter LPTV-5000-4000V3</b>	<b>\$393,211.81</b>	<b>\$372,623.81</b>		<b>\$187,574.47</b>	
Additional Interior RF System	<i>\$75,000.00</i>	\$75,000.00	N/A	N/A	N/A
Standby Exciter and Switch	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
Electrical	<i>\$115,161.81</i>	\$115,161.81	See attached / uploaded PDF file titled "TSG TSG-MPB-2 v200511jgv1.pdf"	\$86,371.35	N/A
Transformer 3 phase /480v - 150 KVA	\$25,550.00	\$24,300.00	N/A	N/A	N/A
High VHF - Air Cooled Solid State Transmitter 1.1 . 4.4 kW	\$152,500.00	\$133,162.00	See attached / uploaded PDF file titled "Comark 001 v200615jgv1.pdf"	\$101,203.12	N/A
<b>Sub-total</b>	<b>\$393,211.81</b>	<b>\$372,623.81</b>	N/A	<b>\$187,574.47</b>	N/A
<b>Total for all systems</b>	<b>\$2,318,645.77</b>	<b>\$1,581,713.25</b>	N/A	<b>\$312,589.31</b>	N/A

## Components

Actual Information	
Description	File Name
Additional Interior RF System	Information not provided.
Standby Exciter and Switch	Information not provided.
Electrical	<b>Component Description:</b> TSG TSG-MPB-2 v200604jgv2 <b>Amount:</b> \$86,371.35
Transformer 3 phase/480v - 150 KVA	Information not provided.
High VHF - Air Cooled Solid State Transmitter 1.1 . 4.4 kW	<b>Component Description:</b> Comark 001 v200615jgv1 <b>Amount:</b> \$101,203.12

## 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
<b>Primary Antenna TAB-12H</b>	<b>\$43,330.00</b>	<b>\$42,800.00</b>		<b>\$9,000.00</b>	
Antenna Re-tune	<i>\$9,000.00</i>	\$9,000.00	See attached / uploaded PDF file titled "Precision Comms 0136 v201030jgv1.pdf"	\$9,000.00	N/A
Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed)	\$7,600.00	\$7,400.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Rigging	<i>\$20,000.00</i>	\$20,000.00	N/A	\$0.00	N/A
<b>Primary Antenna ATW13V2HTO9H</b>	<b>\$296,380.00</b>	<b>\$288,780.00</b>		<b>\$0.00</b>	
Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed)	\$7,600.00	\$0.00	Included in cost of antenna. See ERI quote for itemized costs.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,730.00	N/A	N/A	N/A

High VHF - High Power Top Mount One Station horizontally polarized	<b>\$282,050.00</b>	\$282,050.00	See attached ERI proposal	N/A	N/A
<b>Auxiliary Antenna ALV4V7HSO9</b>	<b>\$77,292.00</b>	<b>\$54,142.00</b>		<b>\$0.00</b>	
Patch Panel	<b>\$12,412.00</b>	\$12,412.00	See ERI Proposal attached	N/A	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$0.00	Included in cost of antenna. See ERI Quote.	N/A	N/A
High VHF - High Power Side Mount One Station horizontally polarized	<b>\$35,000.00</b>	\$35,000.00	See ERI proposal attached	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,730.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$417,002.00</b>	<b>\$385,722.00</b>	N/A	<b>\$9,000.00</b>	N/A
<b>Total for all systems</b>	<b>\$2,318,645.77</b>	<b>\$1,581,713.25</b>	N/A	<b>\$312,589.31</b>	N/A

## Components

Actual Information	
Description	File Name



Antenna Re-tune	<b>Component Description:</b>	Precision Comms 0136 v201105jgv2
	<b>Amount:</b>	\$6,000.00
	<b>Component Description:</b>	Precision Comms 0182 v201204jgv1
	<b>Amount:</b>	\$3,000.00
Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed)	Information not provided.	
Sweep test of existing antenna	Information not provided.	
Rigging	Information not provided.	
Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed)	Information not provided.	
Sweep test of existing antenna	Information not provided.	
High VHF - High Power Top Mount One Station horizontally polarized	Information not provided.	
Patch Panel	Information not provided.	
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	
High VHF - High Power Side Mount One Station horizontally polarized	Information not provided.	
Sweep test of existing antenna	Information not provided.	

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
Primary Transmission Line	\$14,850.00	\$17,083.48		\$0.00	
Flexible Air Transmission Line - dielectric, 1 5 /8"	\$14,850.00	\$17,083.48	See ERI Quote attached	N/A	N/A
Sub-total	\$14,850.00	\$17,083.48	N/A	\$0.00	N/A
Total for all systems	\$2,318,645.77	\$1,581,713.25	N/A	\$312,589.31	N/A

Components

Information not provided.

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	\$1,288,800.00	\$636,914.00		\$0.00	
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$12,410.00	See attached ERI quote, including Mapping \$7,910.00 Analysis \$3,500.00 Certification \$1,000.00	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$274,504.00	See ERI Quote attached	N/A	N/A
Serious tower reinforcement /modifications	\$1,052,000.00	\$350,000.00	See ERI quote attached	N/A	N/A
Sub-total	\$1,288,800.00	\$636,914.00	N/A	\$0.00	N/A
Total for all systems	\$2,318,645.77	\$1,581,713.25	N/A	\$312,589.31	N/A

Components

Information not provided.

## 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
<b>Outside Professional Services</b>	<b>\$163,030.96</b>	<b>\$128,168.96</b>		<b>\$88,606.64</b>	
Other Engineering Services	<i>\$69,818.96</i>	\$69,818.96	KGA-MPB Contract GS# 529-004 + \$425 KGA invoice 139-312	\$69,818.96	N/A
Other Legal Services	<i>\$10,000.00</i>	\$10,000.00	N/A	\$2,732.50	N/A
Additional Field Engineering Service, 13 Days	<i>\$26,000.00</i>	\$26,000.00	N/A	\$4,405.68	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	\$49.50	N/A

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$750.00	N/A	\$750.00	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,000.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$2,750.00	N/A	\$2,750.00	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Project management of the transition	\$32,232.00	\$3,600.00	This component is being used to apply expenses for such tasks as project management and Form 387 Transition Plan Progress Report preparation.	\$3,600.00	N/A

Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$2,500.00	N/A
<b>Sub-total</b>	\$163,030.96	\$128,168.96	N/A	\$88,606.64	N/A
<b>Total for all systems</b>	\$2,318,645.77	\$1,581,713.25	N/A	\$312,589.31	N/A

## Components

Actual Information Description	File Name
Other Engineering Services	<p><b>Component Description:</b> KGA 139-380 v200608jgv1</p> <p><b>Amount:</b> \$4,953.14</p> <p><b>Component Description:</b> KGA 139-386 v200709jgv1</p> <p><b>Amount:</b> \$4,953.14</p> <p><b>Component Description:</b> KGA 139-342 v191211jgv2</p> <p><b>Amount:</b> \$4,953.14</p> <p><b>Component Description:</b> KGA 139-331 v191009jgv1</p> <p><b>Amount:</b> \$4,953.14</p> <p><b>Component Description:</b> KGA 139-379 v200506jgv1</p> <p><b>Amount:</b> \$4,953.14</p> <p><b>Component Description:</b> KGA 139-365 v200408jgv1</p> <p><b>Amount:</b> \$4,953.14</p>

<b>Component Description:</b>	KGA 139-327 v190909jgv1
<b>Amount:</b>	\$4,953.14

<b>Component Description:</b>	KGA 139-351 v200207jgv1
<b>Amount:</b>	\$4,953.14

<b>Component Description:</b>	KGA 139-356 v200207jgv1
<b>Amount:</b>	\$4,953.14

<b>Component Description:</b>	KGA 139-338 v191112jgv1
<b>Amount:</b>	\$4,953.14

<b>Component Description:</b>	KGA 139-315 v190625jgv1
<b>Amount:</b>	\$4,953.14

<b>Component Description:</b>	KGA 139-324 v190909jgv1
<b>Amount:</b>	\$4,953.14

<b>Component Description:</b>	KGA 139-312 v190605pmv1
<b>Amount:</b>	\$425.00

<b>Component Description:</b>	KGA 139-321 v190909jgv1
<b>Amount:</b>	\$4,953.14

<b>Component Description:</b>	KGA 139-338 v191210jgv1
<b>Amount:</b>	\$4,953.14

	<b>Component Description:</b>	KGA 139-309 v200128jgv1
	<b>Amount:</b>	\$50.00
	<b>Component Description:</b>	KGA 139-364 v200320jgv1
	<b>Amount:</b>	\$4,953.14
<hr/>		
Other Legal Services	<b>Component Description:</b>	GSB 664826 v190516pmv1
	<b>Amount:</b>	\$90.00
	<b>Component Description:</b>	GMP 32684 v200605jgv1
	<b>Amount:</b>	\$101.00
	<b>Component Description:</b>	GMP 32982 v200806jgv1
	<b>Amount:</b>	\$513.50
	<b>Component Description:</b>	GMP 31016 v190926jgv2
	<b>Amount:</b>	\$35.00
	<b>Component Description:</b>	GMP 31400 v191113jgv1
	<b>Amount:</b>	\$85.50
	<b>Component Description:</b>	GSB 710370 v190605pmv1
	<b>Amount:</b>	\$46.50
	<b>Component Description:</b>	GMP 32518 v200506jgv1
	<b>Amount:</b>	\$202.00



<b>Component Description:</b>	GMP 31600 v191211jgv1
<b>Amount:</b>	\$101.00

<b>Component Description:</b>	GMP 32344 v200408jgv1
<b>Amount:</b>	\$39.00

<b>Component Description:</b>	WMAE GSB inv #670598 DTV Repack legal services UL20180823jgv1
<b>Amount:</b>	\$120.00

<b>Component Description:</b>	WMAE GSB inv #667584 DTV Repack legal services UL20180823jgv1
<b>Amount:</b>	\$150.00

<b>Component Description:</b>	GMP 31984 v200219jgv1
<b>Amount:</b>	\$140.00

<b>Component Description:</b>	GSB 662020 v190515pmv1
<b>Amount:</b>	\$600.00

<b>Component Description:</b>	WMAE GSB inv #664826 DTV Repack legal services UL20180823jgv1
<b>Amount:</b>	\$90.00

	<p><b>Component Description:</b> GSB 670598 v190516pmv1</p> <p><b>Amount:</b> \$120.00</p>
	<p><b>Component Description:</b> GSB 710996 v190605pmv1</p> <p><b>Amount:</b> \$46.50</p>
	<p><b>Component Description:</b> GMP 32827 v200713jgv1</p> <p><b>Amount:</b> \$462.50</p>
	<p><b>Component Description:</b> GSB 667584 v190516pmv1</p> <p><b>Amount:</b> \$150.00</p>
	<p><b>Component Description:</b> WMAE GSB inv #662020 DTV Repack legal services UL20180823jgv1</p> <p><b>Amount:</b> \$600.00</p>
Additional Field Engineering Service, 13 Days	<p><b>Component Description:</b> KGA inv #139-285 On site survey split evenly between WMAB WMAE WMAW UL20180814jgv1</p> <p><b>Amount:</b> \$4,405.68</p>
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.

<p>Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application</p>	<table> <tr> <td data-bbox="699 100 1114 369"><b>Component Description:</b></td><td data-bbox="1137 100 1426 369">WMAE GSB inv #662020 DTV Repack legal services CP App UL20180823jgv1</td></tr> <tr> <td data-bbox="699 369 1114 459"><b>Amount:</b></td><td data-bbox="1137 369 1426 459">\$49.50</td></tr> <tr> <td data-bbox="699 459 1114 593"><b>Component Description:</b></td><td data-bbox="1137 459 1426 593">GSB 662020 v190515pmv1</td></tr> <tr> <td data-bbox="699 593 1114 683"><b>Amount:</b></td><td data-bbox="1137 593 1426 683">\$49.50</td></tr> </table>	<b>Component Description:</b>	WMAE GSB inv #662020 DTV Repack legal services CP App UL20180823jgv1	<b>Amount:</b>	\$49.50	<b>Component Description:</b>	GSB 662020 v190515pmv1	<b>Amount:</b>	\$49.50
<b>Component Description:</b>	WMAE GSB inv #662020 DTV Repack legal services CP App UL20180823jgv1								
<b>Amount:</b>	\$49.50								
<b>Component Description:</b>	GSB 662020 v190515pmv1								
<b>Amount:</b>	\$49.50								
<p>Prepare engineering section of FCC Form 2100 (main), License to Cover Application</p>	<table> <tr> <td data-bbox="699 683 1114 840"><b>Component Description:</b></td><td data-bbox="1137 683 1426 840">KGA 139-387 v200709jgv1</td></tr> <tr> <td data-bbox="699 840 1114 929"><b>Amount:</b></td><td data-bbox="1137 840 1426 929">\$750.00</td></tr> </table>	<b>Component Description:</b>	KGA 139-387 v200709jgv1	<b>Amount:</b>	\$750.00				
<b>Component Description:</b>	KGA 139-387 v200709jgv1								
<b>Amount:</b>	\$750.00								
<p>Prepare engineering section of FCC Form 2100 (main), Construction Permit Application</p>	<table> <tr> <td data-bbox="699 929 1114 1131"><b>Component Description:</b></td><td data-bbox="1137 929 1426 1131">WMAE KGA inv #139-283 CP App UL20180809jgv1</td></tr> <tr> <td data-bbox="699 1131 1114 1220"><b>Amount:</b></td><td data-bbox="1137 1131 1426 1220">\$2,000.00</td></tr> </table>	<b>Component Description:</b>	WMAE KGA inv #139-283 CP App UL20180809jgv1	<b>Amount:</b>	\$2,000.00				
<b>Component Description:</b>	WMAE KGA inv #139-283 CP App UL20180809jgv1								
<b>Amount:</b>	\$2,000.00								
<p>Perform engineering study for new channel assignment and antenna development</p>	<table> <tr> <td data-bbox="699 1220 1114 1467"><b>Component Description:</b></td><td data-bbox="1137 1220 1426 1467">WMAE KGA inv #139-283 New channel assignment UL20180809jgv1</td></tr> <tr> <td data-bbox="699 1467 1114 1556"><b>Amount:</b></td><td data-bbox="1137 1467 1426 1556">\$2,750.00</td></tr> </table>	<b>Component Description:</b>	WMAE KGA inv #139-283 New channel assignment UL20180809jgv1	<b>Amount:</b>	\$2,750.00				
<b>Component Description:</b>	WMAE KGA inv #139-283 New channel assignment UL20180809jgv1								
<b>Amount:</b>	\$2,750.00								
<p>Address transition timing and coordination issues w/ other stations and wireless</p>	<p>Information not provided.</p>								
<p>Project management of the transition</p>	<table> <tr> <td data-bbox="699 1713 1114 1960"><b>Component Description:</b></td><td data-bbox="1137 1713 1426 1960">WMAE KGA inv #139-296 2018Q1 387 UL20180810jgv1</td></tr> <tr> <td data-bbox="699 1960 1114 2136"><b>Amount:</b></td><td data-bbox="1137 1960 1426 2136">\$150.00</td></tr> </table>	<b>Component Description:</b>	WMAE KGA inv #139-296 2018Q1 387 UL20180810jgv1	<b>Amount:</b>	\$150.00				
<b>Component Description:</b>	WMAE KGA inv #139-296 2018Q1 387 UL20180810jgv1								
<b>Amount:</b>	\$150.00								

<b>Component Description:</b>	KGA 139-390 v200713jgv1
<b>Amount:</b>	\$300.00

<b>Component Description:</b>	KGA 139-306 v190716jgv1
<b>Amount:</b>	\$300.00

<b>Component Description:</b>	KGA 139-303 v190703jgv1
<b>Amount:</b>	\$300.00

<b>Component Description:</b>	KGA 139-333 v191011jgv1
<b>Amount:</b>	\$300.00

<b>Component Description:</b>	KGA 139-377 v200430jgv1
<b>Amount:</b>	\$150.00

<b>Component Description:</b>	KGA 139-358 v200207jgv1
<b>Amount:</b>	\$300.00

<b>Component Description:</b>	KGA 193-303 v190716jgv1
<b>Amount:</b>	\$300.00

<b>Component Description:</b>	WMAE KGA inv #139-290 2017Q4 387 UL20180809jgv1
<b>Amount:</b>	\$150.00

<b>Component Description:</b>	KGA 139-389 v200713jgv1
<b>Amount:</b>	\$300.00

	<b>Component Description:</b>  <b>Amount:</b>	WMAE KGA inv #139-287 2017Q3 387 UL20180810jgv1 \$300.00
	<b>Component Description:</b>  <b>Amount:</b>	KGA 139-370 v200415jgv1 \$300.00
	<b>Component Description:</b>  <b>Amount:</b>	KGA 139-318 v190715jgv1 \$300.00
	<b>Component Description:</b>  <b>Amount:</b>	KGA 139-300 v200128jgv1 \$150.00
Prepare and or review reimbursement form	<b>Component Description:</b>  <b>Amount:</b>	WMAE KGA inv #139-284 Prepare and or review 399 UL20180813jgv1 \$2,500.00

## 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
<b>Other Expenses</b>	<b>\$41,751.00</b>	<b>\$41,201.00</b>		<b>\$27,408.20</b>	
MVPD Notification of Channel Change	<i>\$2,965.00</i>	\$2,965.00	N/A	\$2,965.00	N/A
Develop and air announcement of upcoming channel change	<i>\$0.00</i>	\$0.00	N/A	N/A	N/A
Equipment Storage	<i>\$5,000.00</i>	\$5,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$2,353.00</i>	\$2,353.00	N/A	\$2,235.35	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$19,883.00</i>	\$19,883.00	See attached / uploaded PDF file titled "Comark 001 v200615jgv1.pdf"	\$18,888.85	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	\$3,319.00	N/A
<b>Sub-total</b>	<b>\$41,751.00</b>	<b>\$41,201.00</b>	N/A	<b>\$27,408.20</b>	N/A
<b>Total for all systems</b>	<b>\$2,318,645.77</b>	<b>\$1,581,713.25</b>	N/A	<b>\$312,589.31</b>	N/A

## Components

Actual Information	
Description	File Name
MVPD Notification of Channel Change	<p><b>Component Description:</b> KGA 139-383 v200623jgv1</p> <p><b>Amount:</b> \$1,186.00</p> <p><b>Component Description:</b> KGA 139-372 v200420jgv1</p> <p><b>Amount:</b> \$1,779.00</p>
Develop and air announcement of upcoming channel change	Information not provided.
Equipment Storage	Information not provided.
Equipment Delivery and Handling Charges	<p><b>Component Description:</b> Comark 001 v200615jgv1</p> <p><b>Amount:</b> \$2,235.35</p>
Disposal Costs (for equipment and other waste, net of any salvage value)	<p><b>Component Description:</b> Comark 001 v200615jgv1</p> <p><b>Amount:</b> \$18,888.85</p>
DTV Medical Facility Notification	<p><b>Component Description:</b> KGA 139-373 v200420jgv1</p> <p><b>Amount:</b> \$3,319.00</p>

**Cost  
Information**

**Grand Total**

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$2,318,645.77	\$1,581,713.25	\$312,589.31

**Reimbursement Status**

Question	Response
The facility has ceased operating on its pre-auction channel.	Yes
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"> <li>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.</li> <li>2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>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.</li> </ol>	

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><b>Robert Gehman</b>  <i>Consulting Engineer</i></p> <p>01/26/2021</p>

## Attachments