



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **43170** | Service: **DTV** | Call **WMAE-TV** | Channel:  
ID: | Sign:  
**9 (High VHF)** | File **000026661**  
Number:  
FRN: **0001739002** | Date **03/05**  
Submitted: **/2021**

## Applicant Information Applicant Name, Type, and Contact Information

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

## 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</i> <i>Kessler and Gehman</i> <i>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
<b>Transmitter Related Expenses</b>	Do you have transmitter related expenses?	Yes

**Primary  
Transmitter**

**Existing Transmitter Information**

<b>Section</b>	<b>Question</b>	<b>Response</b>
<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
<b>New Transmitter</b>	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
<b>Electrical Service</b>	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**

<b>Name</b>	<b>Description</b>
<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
<b>Electrical</b>	Electrical

**Antennas**

Section	Question	Response
<b>Antenna Related Expenses</b>	Do you have antenna related expenses?	Yes

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

Section	Question	Response
<b>Existing Antenna Description</b>	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
<b>Existing Antenna Manufacturer and Type</b>	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>Rigging</b>	Rigging to replace elbow complex which was found to be mismatched
<b>Antenna Re-tune</b>	Antenna Re-tune

**Auxiliary  
Antenna**

**Add Antenna Information**

Section	Question	Response
<b>Existing Antenna Description</b>	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	
<b>Existing Antenna Manufacturer and Type</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	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



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Manufacturer	
Model	ALV4V7- HSO-9
Year	2021

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**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
<b>Existing Antenna Description</b>	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
<b>Existing Antenna Manufacturer and Type</b>	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

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**Primary  
Antenna**

**New Antenna Costs**

Section	Question	Response
<b>New Antenna Description</b>	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
<b>New Antenna Manufacturer and Types</b>	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.

**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

**Auxiliary  
Transmission  
Line**

**Add Transmission Line**

Section	Question	Response
<b>Existing Transmission Line Description</b>	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Interim
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmission currently shared with any other stations?	No
	Is Transmission Line in operating condition?	Yes
<b>Existing Transmission Line Manufacturer and Type</b>	Manufacturer	
	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	425 feet per run

**Auxiliary  
Transmission  
Line**      **New Transmission Line**

Section	Question	Response
<b>New Transmission Line Costs</b>	Use	Auxiliary (Backup)
	Description of Use	Interim
	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 is required for station to stay on the air while the main antenna is being replaced and during tower work.

**Auxiliary  
Transmission  
Line**      **Other Transmission Line Expenses Not Listed**

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

**Primary Tower**

**Tower Rigging Costs**

Section	Question	Response
<b>Tower Rigging Costs</b>	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
<p><b>Outside Project Management Services</b></p>	<p>Do you require outside project management services?</p>	<p>Yes</p>
	<p>Number of Hours</p>	<p>204</p>
	<p>Explanation</p>	<p>Fewer Project Management "PM" tasks are required &amp; Other Engineering Services "OES" are required, therefore the PM total has been reduced to 20 hrs (\$3,000 at \$150/hr), &amp; a new OES category has been created &amp; funded with the money removed from PM.</p>
<p><b>Outside RF consulting Engineering Services</b></p>	<p>Perform engineering study for new channel assignment and antenna development</p>	<p>Yes</p>
	<p>Prepare engineering section of Form FCC Construction Permit Application</p>	<p>Yes</p>
	<p>For Auxiliary Facility</p>	<p>No</p>
	<p>For Main Facility</p>	<p>Yes</p>
	<p>Prepare engineering section of Form FCC License to Cover Application</p>	<p>Yes</p>
	<p>For Auxiliary Facility</p>	<p>No</p>
	<p>For Main Facility</p>	<p>Yes</p>



	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**

<b>Section</b>	<b>Question</b>	<b>Response</b>
<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

**Other  
Expenses**

**Other Expenses Not Listed**

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>	
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
Additional Interior RF System	<i>\$75,000.00</i>	\$75,000.00	N/A	N/A	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>\$2,330,445.77</b>	<b>\$1,593,713.25</b>	N/A	<b>\$326,889.31</b>	N/A

## Components

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

**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>\$43,000.00</b>		<b>\$9,000.00</b>	
Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed)	\$7,600.00	\$7,600.00	N/A	N/A	N/A
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
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	<i>\$282,050.00</i>	\$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	<i>\$12,412.00</i>	\$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
Sweep test of existing antenna	\$6,730.00	\$6,730.00	N/A	N/A	N/A
High VHF - High Power Side Mount One Station horizontally polarized	<i>\$35,000.00</i>	\$35,000.00	See ERI proposal attached	N/A	N/A
<b>Sub-total</b>	<b>\$417,002.00</b>	<b>\$385,922.00</b>	N/A	<b>\$9,000.00</b>	N/A
<b>Total for all systems</b>	<b>\$2,330,445.77</b>	<b>\$1,593,713.25</b>	N/A	<b>\$326,889.31</b>	N/A

## Components

Actual Information	
Description	File Name
Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed)	Information not provided.



Antenna Re-tune	<p><b>Component Description:</b> Precision Comms 0182 v201204jgv1</p> <p><b>Amount:</b> \$3,000.00</p> <p><b>Component Description:</b> Precision Comms 0136 v201105jgv2</p> <p><b>Amount:</b> \$6,000.00</p>
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.
Sweep test of existing antenna	Information not provided.
High VHF - High Power Side Mount One Station horizontally polarized	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
<b>Auxiliary Transmission Line</b>	<b>\$14,850.00</b>	<b>\$17,083.48</b>		<b>\$0.00</b>	
Flexible Air Transmission Line - dielectric, 1 5 /8"	\$14,850.00	\$17,083.48	See ERI Proposal attached	N/A	N/A
<b>Sub-total</b>	<b>\$14,850.00</b>	<b>\$17,083.48</b>	N/A	<b>\$0.00</b>	N/A
<b>Total for all systems</b>	<b>\$2,330,445.77</b>	<b>\$1,593,713.25</b>	N/A	<b>\$326,889.31</b>	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
<b>Primary Tower TOWER</b>	<b>\$1,288,800.00</b>	<b>\$636,914.00</b>		<b>\$2,500.00</b>	
Serious tower reinforcement /modifications	\$1,052,000.00	\$350,000.00	See ERI quote attached	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$274,504.00	See ERI Quote attached	N/A	N/A
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	\$2,500.00	N/A
<b>Sub-total</b>	<b>\$1,288,800.00</b>	<b>\$636,914.00</b>	<b>N/A</b>	<b>\$2,500.00</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$2,330,445.77</b>	<b>\$1,593,713.25</b>	<b>N/A</b>	<b>\$326,889.31</b>	<b>N/A</b>

**Components**

Actual Information	
Description	File Name
Serious tower reinforcement /modifications	Information not provided.
Tall Tower (greater than 500')	Information not provided.

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	<p data-bbox="703 174 1023 210"><b>Component Description:</b></p> <p data-bbox="703 255 826 291"><b>Amount:</b></p> <p data-bbox="1158 174 1318 210">Pate 2021-17</p> <p data-bbox="1158 215 1310 250">v210305jgv1</p> <p data-bbox="1158 255 1278 291">\$2,500.00</p>
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**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>\$174,830.96</b>	<b>\$139,968.96</b>		<b>\$100,406.64</b>	
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
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$2,500.00	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

Other Engineering Services	<b>\$81,618.96</b>	\$81,618.96	KGA-MPB Contract GS# 529-004 + \$425 KGA invoice 139-312, and see attached / uploaded PDF file titled "KGA 139-399 v210305jgv1.pdf"	\$81,618.96	N/A
<b>Sub-total</b>	\$174,830.96	\$139,968.96	N/A	\$100,406.64	N/A
<b>Total for all systems</b>	\$2,330,445.77	\$1,593,713.25	N/A	\$326,889.31	N/A

### Components

Actual Information	
Description	File Name
Other Legal Services	<p><b>Component Description:</b> WMAE GSB inv #662020 DTV Repack legal services UL20180823jgv1</p> <p><b>Amount:</b> \$600.00</p> <p><b>Component Description:</b> WMAE GSB inv #670598 DTV Repack legal services UL20180823jgv1</p> <p><b>Amount:</b> \$120.00</p> <p><b>Component Description:</b> GSB 670598 v190516pmv1</p> <p><b>Amount:</b> \$120.00</p>

**Component Description:** GMP 31600  
v191211jgv1  
**Amount:** \$101.00

**Component Description:** GSB 710370  
v190605pmv1  
**Amount:** \$46.50

**Component Description:** WMAE GSB inv  
#664826 DTV  
Repack legal  
services  
UL20180823jgv1  
**Amount:** \$90.00

**Component Description:** GMP 32518  
v200506jgv1  
**Amount:** \$202.00

**Component Description:** GMP 31016  
v190926jgv2  
**Amount:** \$35.00

**Component Description:** GSB 667584  
v190516pmv1  
**Amount:** \$150.00

**Component Description:** GSB 662020  
v190515pmv1  
**Amount:** \$600.00

**Component Description:** GSB 710996  
v190605pmv1  
**Amount:** \$46.50



**Component Description:** WMAE GSB inv  
#667584 DTV  
Repack legal  
services  
UL20180823jgv1  
**Amount:** \$150.00

**Component Description:** GMP 31984  
v200219jgv1  
**Amount:** \$140.00

**Component Description:** GMP 32827  
v200713jgv1  
**Amount:** \$462.50

**Component Description:** GMP 32684  
v200605jgv1  
**Amount:** \$101.00

**Component Description:** GMP 32344  
v200408jgv1  
**Amount:** \$39.00

**Component Description:** GMP 32982  
v200806jgv1  
**Amount:** \$513.50

**Component Description:** GSB 664826  
v190516pmv1  
**Amount:** \$90.00

**Component Description:** GMP 31400  
v191113jgv1  
**Amount:** \$85.50

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<p>Additional Field Engineering Service, 13 Days</p>	<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>
<p>Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application</p>	<p>Information not provided.</p>
<p>Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application</p>	<p><b>Component Description:</b> WMAE GSB inv #662020 DTV Repack legal services CP App UL20180823jgv1</p> <p><b>Amount:</b> \$49.50</p> <p><b>Component Description:</b> GSB 662020 v190515pmv1</p> <p><b>Amount:</b> \$49.50</p>
<p>Prepare engineering section of FCC Form 2100 (main), License to Cover Application</p>	<p><b>Component Description:</b> KGA 139-387 v200709jgv1</p> <p><b>Amount:</b> \$750.00</p>
<p>Prepare engineering section of FCC Form 2100 (main), Construction Permit Application</p>	<p><b>Component Description:</b> WMAE KGA inv #139-283 CP App UL20180809jgv1</p> <p><b>Amount:</b> \$2,000.00</p>

<p>Perform engineering study for new channel assignment and antenna development</p>	<p><b>Component Description:</b> WMAE KGA inv #139-283 New channel assignment UL20180809jgv1</p> <p><b>Amount:</b> \$2,750.00</p>
<p>Address transition timing and coordination issues w/ other stations and wireless</p>	<p>Information not provided.</p>
<p>Prepare and or review reimbursement form</p>	<p><b>Component Description:</b> WMAE KGA inv #139-284 Prepare and or review 399 UL20180813jgv1</p> <p><b>Amount:</b> \$2,500.00</p>
<p>Project management of the transition</p>	<p><b>Component Description:</b> WMAE KGA inv #139-296 2018Q1 387 UL20180810jgv1</p> <p><b>Amount:</b> \$150.00</p> <p><b>Component Description:</b> WMAE KGA inv #139-290 2017Q4 387 UL20180809jgv1</p> <p><b>Amount:</b> \$150.00</p> <p><b>Component Description:</b> KGA 139-303 v190703jgv1</p> <p><b>Amount:</b> \$300.00</p> <p><b>Component Description:</b> KGA 139-390 v200713jgv1</p> <p><b>Amount:</b> \$300.00</p>

**Component Description:** KGA 139-306  
v190716jgv1  
**Amount:** \$300.00

**Component Description:** KGA 193-303  
v190716jgv1  
**Amount:** \$300.00

**Component Description:** WMAE KGA inv  
#139-287 2017Q3  
387  
UL20180810jgv1  
**Amount:** \$300.00

**Component Description:** KGA 139-389  
v200713jgv1  
**Amount:** \$300.00

**Component Description:** KGA 139-377  
v200430jgv1  
**Amount:** \$150.00

**Component Description:** KGA 139-358  
v200207jgv1  
**Amount:** \$300.00

**Component Description:** KGA 139-300  
v200128jgv1  
**Amount:** \$150.00

**Component Description:** KGA 139-318  
v190715jgv1  
**Amount:** \$300.00

**Component Description:** KGA 139-370  
v200415jgv1  
**Amount:** \$300.00

	<p><b>Component Description:</b> KGA 139-333 v191011jgv1</p> <p><b>Amount:</b> \$300.00</p>
Other Engineering Services	<p><b>Component Description:</b> KGA 139-399 v210305jgv1</p> <p><b>Amount:</b> \$11,800.00</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 139-324 v190909jgv1</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> <p><b>Component Description:</b> KGA 139-321 v190909jgv1</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 139-338 v191210jgv1</p> <p><b>Amount:</b> \$4,953.14</p>

**Component Description:** KGA 139-379  
v200506jgv1  
**Amount:** \$4,953.14

**Component Description:** KGA 139-338  
v191112jgv1  
**Amount:** \$4,953.14

**Component Description:** KGA 139-380  
v200608jgv1  
**Amount:** \$4,953.14

**Component Description:** KGA 139-356  
v200207jgv1  
**Amount:** \$4,953.14

**Component Description:** KGA 139-364  
v200320jgv1  
**Amount:** \$4,953.14

**Component Description:** KGA 139-351  
v200207jgv1  
**Amount:** \$4,953.14

**Component Description:** KGA 139-327  
v190909jgv1  
**Amount:** \$4,953.14

**Component Description:** KGA 139-309  
v200128jgv1  
**Amount:** \$50.00

**Component Description:** KGA 139-315  
v190625jgv1  
**Amount:** \$4,953.14

**Component Description:**

KGA 139-312

v190605pmv1

**Amount:**

\$425.00

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**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>	<b>N/A</b>	<b>\$27,408.20</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$2,330,445.77</b>	<b>\$1,593,713.25</b>	<b>N/A</b>	<b>\$326,889.31</b>	<b>N/A</b>



## 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**

	<b>Predetermined Cost Estimate</b>	<b>Estimated Cost</b>	<b>Actual Cost</b>
<b>Total for all systems</b>	\$2,330,445.77	\$1,593,713.25	\$326,889.31

**Reimbursement Status**

<b>Question</b>	<b>Response</b>
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
	<b>Submission of Estimated Expenses Statements</b>	<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.

8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.

I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.

**Jeffrey C  
Gehman**  
*Engineering  
Associate*

03/05/2021

Certification	Section	Question	Response
	<b>Submission of Actual Cost Documentation Statements</b>	<p>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).</p>	
		<ol style="list-style-type: none"> <li>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.</li> <li>2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.</li> <li>3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> </ol>	

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><b>Jeffrey C Gehman</b>  <i>Engineering Associate</i></p> <p>03/05/2021</p>

**Attachments**