



(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 **04/09**
Submitted: **/2021**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
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
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
Robert Gehman <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
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	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
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
Standby Exciter and Switch	Standby Exciter with Automatic Change Over Switch
Additional Interior RF System	Interior RF System Existing Transmitter to Interim Transmission line
Electrical	Electrical

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
Sweep Test of Existing Antenna	Do you need a sweep test of existing antenna?	Yes

**Primary
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	

**Primary
Antenna**

Other Antenna Cost Not Listed

Name	Description
Antenna Re-tune	Antenna Re-tune
Rigging	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
New Antenna Description	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
New Antenna Manufacturer and Types	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
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	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 a high power antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

**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
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	3 1/8 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

**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 **Add Transmission Line**
Transmission Line

Section	Question	Response
Existing Transmission Line Description	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
Existing Transmission Line Manufacturer and Type	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 **New Transmission Line**
Transmission Line **Section**

Section	Question	Response
New Transmission Line Costs	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 **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

Helicopter Services Required	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
Outside Project Management Services	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.
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	No
	Quantity	N/A
	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	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
RF Field Engineering Services	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
Other Engineering Services	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 Legal Services	Other Legal Services related to the DTV Repack
Pre-Bid Meeting	Pre-Bid Meeting

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
	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
Primary Transmitter LPTV-5000-4000V3	\$393,211.81	\$372,623.81		\$242,565.72	
Electrical	<i>\$115,161.81</i>	\$115,161.81	See attached / uploaded PDF file titled "TSG TSG-MPB-2 v200511jgv1.pdf"	\$109,403.72	N/A
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
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"	\$133,162.00	N/A
Sub-total	\$393,211.81	\$372,623.81	N/A	\$242,565.72	N/A
Total for all systems	\$2,336,665.77	\$1,601,663.25	N/A	\$390,942.36	N/A

Components

Actual Information	
Description	File Name
Electrical	Component Description: TSG TSG-MPB-3 v210324jgv1 Amount: \$23,032.37
	Component Description: TSG TSG-MPB-2 v200604jgv2 Amount: \$86,371.35
	Information not provided.
	Information not provided.
Additional Interior RF System	Information not provided.
Standby Exciter and Switch	Information not provided.
Transformer 3 phase/480v - 150 KVA	Information not provided.
High VHF - Air Cooled Solid State Transmitter 1.1 . 4.4 kW	Component Description: Comark 003 v210318jgv2 Amount: \$31,958.88
	Component Description: Comark 001 v200615jgv1 Amount: \$101,203.12
	Information not provided.
	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
Primary Antenna TAB-12H	\$43,330.00	\$43,000.00		\$9,000.00	
Rigging	<i>\$20,000.00</i>	\$20,000.00	N/A	\$0.00	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
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
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Primary Antenna ATW13V2HTO9H	\$296,380.00	\$288,780.00		\$0.00	
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	\$282,050.00	\$282,050.00	See attached ERI proposal	N/A	N/A
Auxiliary Antenna ALV4V7HSO9	\$77,292.00	\$54,142.00		\$0.00	
Patch Panel	\$12,412.00	\$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	\$35,000.00	\$35,000.00	See ERI proposal attached	N/A	N/A
Sub-total	\$417,002.00	\$385,922.00	N/A	\$9,000.00	N/A
Total for all systems	\$2,336,665.77	\$1,601,663.25	N/A	\$390,942.36	N/A

Components

Actual Information	
Description	File Name
Rigging	Information not provided.

Antenna Re-tune	Component Description:		Precision Comms
			0136 v201105jgv2
	Amount:		\$6,000.00
	Component Description:		Precision Comms
			0182 v201204jgv1
	Amount:		\$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.		
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
Auxiliary 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 Proposal attached	N/A	N/A
Sub-total	\$14,850.00	\$17,083.48	N/A	\$0.00	N/A
Total for all systems	\$2,336,665.77	\$1,601,663.25	N/A	\$390,942.36	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		\$2,500.00	
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	\$2,500.00	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	\$2,500.00	N/A
Total for all systems	\$2,336,665.77	\$1,601,663.25	N/A	\$390,942.36	N/A

Components

Actual Information	
Description	File Name
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	<div>Component Description: Pate 2021-17 v210305jgv1</div> <div>Amount: \$2,500.00</div>

Tall Tower (greater than 500')	Information not provided.
Serious tower reinforcement /modifications	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
Outside Professional Services	\$181,050.96	\$147,918.96		\$108,356.64	
Pre-Bid Meeting	<i>\$6,220.00</i>	\$6,220.00	See attached / uploaded PDF file titled "KGA 139-402 v210315jgv1.pdf"	\$6,220.00	N/A
Other Legal Services	<i>\$10,000.00</i>	\$10,000.00	N/A	\$2,732.50	N/A
Other Engineering Services	<i>\$81,618.96</i>	\$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
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
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
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$2,750.00	N/A	\$2,750.00	N/A
Prepare and or review reimbursement form	\$2,630.00	\$4,230.00	The Estimated Cost includes Form 399 submissions including ongoing Actual Cost invoice prep and submission, and amendments as needed.	\$4,230.00	N/A
Sub-total	\$181,050.96	\$147,918.96	N/A	\$108,356.64	N/A
Total for all systems	\$2,336,665.77	\$1,601,663.25	N/A	\$390,942.36	N/A

Components

Actual Information
Description

File Name

Pre-Bid Meeting	<div> Component Description: KGA 139-402 v210318jgv2 </div> <div> Amount: \$6,220.00 </div>
Other Legal Services	<div> Component Description: GSB 664826 v190516pmv1 </div> <div> Amount: \$90.00 </div>
	<div> Component Description: GMP 32684 v200605jgv1 </div> <div> Amount: \$101.00 </div>
	<div> Component Description: GMP 31016 v190926jgv2 </div> <div> Amount: \$35.00 </div>
	<div> Component Description: GMP 31400 v191113jgv1 </div> <div> Amount: \$85.50 </div>
	<div> Component Description: GMP 32982 v200806jgv1 </div> <div> Amount: \$513.50 </div>
	<div> Component Description: GSB 710370 v190605pmv1 </div> <div> Amount: \$46.50 </div>
	<div> Component Description: WMAE GSB inv #670598 DTV Repack legal services UL20180823jgv1 </div> <div> Amount: \$120.00 </div>

Component Description:	GMP 32518 v200506jgv1
Amount:	\$202.00

Component Description:	GSB 710996 v190605pmv1
Amount:	\$46.50

Component Description:	GSB 667584 v190516pmv1
Amount:	\$150.00

Component Description:	GMP 31984 v200219jgv1
Amount:	\$140.00

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

Component Description:	GMP 31600 v191211jgv1
Amount:	\$101.00

Component Description:	GMP 32827 v200713jgv1
Amount:	\$462.50

Component Description:	GSB 670598 v190516pmv1
Amount:	\$120.00

	Component Description:	GSB 662020 v190515pmv1
	Amount:	\$600.00
	Component Description:	WMAE GSB inv #667584 DTV Repack legal services UL20180823jgv1
	Amount:	\$150.00
	Component Description:	WMAE GSB inv #662020 DTV Repack legal services UL20180823jgv1
	Amount:	\$600.00
	Component Description:	GMP 32344 v200408jgv1
	Amount:	\$39.00
<hr/>		
Other Engineering Services	Component Description:	KGA 139-380 v200608jgv1
	Amount:	\$4,953.14
	Component Description:	KGA 139-386 v200709jgv1
	Amount:	\$4,953.14
	Component Description:	KGA 139-399 v210305jgv1
	Amount:	\$11,800.00
	Component Description:	KGA 139-342 v191211jgv2
	Amount:	\$4,953.14

Component Description:	KGA 139-331 v191009jgv1
Amount:	\$4,953.14

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

Component Description:	KGA 139-365 v200408jgv1
Amount:	\$4,953.14

Component Description:	KGA 139-327 v190909jgv1
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 139-338 v191112jgv1
Amount:	\$4,953.14

Component Description:	KGA 139-312 v190605pmv1
Amount:	\$425.00

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

	<p>Component Description: KGA 139-321 v190909jgv1</p> <p>Amount: \$4,953.14</p>
	<p>Component Description: KGA 139-324 v190909jgv1</p> <p>Amount: \$4,953.14</p>
	<p>Component Description: KGA 139-315 v190625jgv1</p> <p>Amount: \$4,953.14</p>
	<p>Component Description: KGA 139-338 v191210jgv1</p> <p>Amount: \$4,953.14</p>
	<p>Component Description: KGA 139-351 v200207jgv1</p> <p>Amount: \$4,953.14</p>
Additional Field Engineering Service, 13 Days	<p>Component Description: KGA inv #139-285 On site survey split evenly between WMAB WMAE WMAW UL20180814jgv1</p> <p>Amount: \$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">Component Description:</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 436">Amount:</td><td data-bbox="1137 369 1426 436">\$49.50</td></tr> <tr> <td data-bbox="699 504 1114 593">Component Description:</td><td data-bbox="1137 504 1426 593">GSB 662020 v190515pmv1</td></tr> <tr> <td data-bbox="699 593 1114 660">Amount:</td><td data-bbox="1137 593 1426 660">\$49.50</td></tr> </table>	Component Description:	WMAE GSB inv #662020 DTV Repack legal services CP App UL20180823jgv1	Amount:	\$49.50	Component Description:	GSB 662020 v190515pmv1	Amount:	\$49.50				
Component Description:	WMAE GSB inv #662020 DTV Repack legal services CP App UL20180823jgv1												
Amount:	\$49.50												
Component Description:	GSB 662020 v190515pmv1												
Amount:	\$49.50												
<p>Prepare engineering section of FCC Form 2100 (main), License to Cover Application</p>	<table> <tr> <td data-bbox="699 694 1114 840">Component Description:</td><td data-bbox="1137 694 1426 840">KGA 139-387 v200709jgv1</td></tr> <tr> <td data-bbox="699 840 1114 907">Amount:</td><td data-bbox="1137 840 1426 907">\$750.00</td></tr> </table>	Component Description:	KGA 139-387 v200709jgv1	Amount:	\$750.00								
Component Description:	KGA 139-387 v200709jgv1												
Amount:	\$750.00												
<p>Prepare engineering section of FCC Form 2100 (main), Construction Permit Application</p>	<table> <tr> <td data-bbox="699 940 1114 1131">Component Description:</td><td data-bbox="1137 940 1426 1131">WMAE KGA inv #139-283 CP App UL20180809jgv1</td></tr> <tr> <td data-bbox="699 1131 1114 1198">Amount:</td><td data-bbox="1137 1131 1426 1198">\$2,000.00</td></tr> </table>	Component Description:	WMAE KGA inv #139-283 CP App UL20180809jgv1	Amount:	\$2,000.00								
Component Description:	WMAE KGA inv #139-283 CP App UL20180809jgv1												
Amount:	\$2,000.00												
<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 1388 1114 1646">Component Description:</td><td data-bbox="1137 1388 1426 1646">WMAE KGA inv #139-296 2018Q1 387 UL20180810jgv1</td></tr> <tr> <td data-bbox="699 1646 1114 1713">Amount:</td><td data-bbox="1137 1646 1426 1713">\$150.00</td></tr> <tr> <td data-bbox="699 1758 1114 1848">Component Description:</td><td data-bbox="1137 1758 1426 1848">KGA 139-390 v200713jgv1</td></tr> <tr> <td data-bbox="699 1848 1114 1915">Amount:</td><td data-bbox="1137 1848 1426 1915">\$300.00</td></tr> <tr> <td data-bbox="699 1982 1114 2072">Component Description:</td><td data-bbox="1137 1982 1426 2072">KGA 139-306 v190716jgv1</td></tr> <tr> <td data-bbox="699 2072 1114 2136">Amount:</td><td data-bbox="1137 2072 1426 2136">\$300.00</td></tr> </table>	Component Description:	WMAE KGA inv #139-296 2018Q1 387 UL20180810jgv1	Amount:	\$150.00	Component Description:	KGA 139-390 v200713jgv1	Amount:	\$300.00	Component Description:	KGA 139-306 v190716jgv1	Amount:	\$300.00
Component Description:	WMAE KGA inv #139-296 2018Q1 387 UL20180810jgv1												
Amount:	\$150.00												
Component Description:	KGA 139-390 v200713jgv1												
Amount:	\$300.00												
Component Description:	KGA 139-306 v190716jgv1												
Amount:	\$300.00												

Component Description:	KGA 139-333 v191011jgv1
Amount:	\$300.00

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

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

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

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

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

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

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

Component Description:	KGA 139-303 v190703jgv1
Amount:	\$300.00

	Component Description:	WMAE KGA inv #139-290 2017Q4 387 UL20180809jgv1
	Amount:	\$150.00
	Component Description:	KGA 139-318 v190715jgv1
	Amount:	\$300.00
Perform engineering study for new channel assignment and antenna development	Component Description:	WMAE KGA inv #139-283 New channel assignment UL20180809jgv1
	Amount:	\$2,750.00
Prepare and or review reimbursement form	Component Description:	KGA 139-406 v210409jgv1
	Amount:	\$650.00
	Component Description:	KGA 139-403 v210318jgv2
	Amount:	\$1,080.00
	Component Description:	WMAE KGA inv #139-284 Prepare and or review 399 UL20180813jgv1
	Amount:	\$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
Other Expenses	\$41,751.00	\$41,201.00		\$28,520.00	
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	\$2,353.00	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"	\$19,883.00	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	\$3,319.00	N/A
Sub-total	\$41,751.00	\$41,201.00	N/A	\$28,520.00	N/A
Total for all systems	\$2,336,665.77	\$1,601,663.25	N/A	\$390,942.36	N/A

Components

Actual Information Description	File Name
MVPD Notification of Channel Change	<div> Component Description: KGA 139-383 v200623jgv1 Amount: \$1,186.00 </div> <div> Component Description: KGA 139-372 v200420jgv1 Amount: \$1,779.00 </div>
Develop and air announcement of upcoming channel change	Information not provided.
Equipment Storage	Information not provided.
Equipment Delivery and Handling Charges	<div> Component Description: Comark 001 v200615jgv1 Amount: \$2,235.35 </div> <div> Component Description: Comark 003 v210318jgv2 Amount: \$117.65 </div>
Disposal Costs (for equipment and other waste, net of any salvage value)	<div> Component Description: Comark 001 v200615jgv1 Amount: \$18,888.85 </div> <div> Component Description: Comark 003 v210318jgv2 Amount: \$994.15 </div>

DTV Medical Facility Notification	<table><tr><td data-bbox="703 94 1134 349">Component Description:</td><td data-bbox="1134 94 1431 349">KGA 139-373 v200420jgv1</td></tr><tr><td data-bbox="703 241 1134 349">Amount:</td><td data-bbox="1134 241 1431 349">\$3,319.00</td></tr></table>	Component Description:	KGA 139-373 v200420jgv1	Amount:	\$3,319.00
Component Description:	KGA 139-373 v200420jgv1				
Amount:	\$3,319.00				

Cost Information	Grand Total		
		Predetermined Cost Estimate	Estimated Cost
			Actual Cost
	Total for all systems	\$2,336,665.77	\$1,601,663.25
			\$390,942.36

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"> 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>Jeffrey C Gehman <i>Engineering Associate</i></p> <p>04/09/2021</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>Jeffrey C Gehman <i>Engineering Associate</i></p> <p>04/09/2021</p>

Attachments