



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **53114** | Service: **DTV** | Call **WDIV-TV** | Channel: **32 (UHF)** |  
ID: | Sign:  
File **0000027867**  
Number:  
FRN: **0002161123** | Date **02/06**  
Submitted: **/2019**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>GRAHAM MEDIA GROUP, MICHIGAN, INC.</b>	Marcus Williams 550 WEST LAFAYETTE BOULEVARD DETROIT, MI 48226 United States	+1 (313) 222-0581	MARCUS@WDIV.COM	Corporation
Doing Business As:				
GRAHAM MEDIA GROUP, MICHIGAN, INC.				

## 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>William T Godfrey , Jr. .</b> <i>Consulting Engineers Kessler and Gehman Associates, Inc.</i>	William T. Godfrey, Jr. Kessler and Gehman Associates, Inc. 507 NW 60 Street, Suite D Gainesville, FL 32607 United States	+1 (352) 332-3157	jeff@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	Install new main dual transmitter and main antenna while using licensed AUX facility during tower work and throughout the assigned phase. Map and analyze tower; design and modify tower. Install new AUX antenna and AUX transmitter post-transition.

**Transmitters**

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

**Auxiliary  
Transmitter****Existing Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	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	Diamond
	Year	2005
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	7.5 kW

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

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	UAXTE- 12R44
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	7.2 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.

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

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

	Size	N/A
	Length	N/A
	Other Electrical Service	Yes
	Description	Disconnect existing transmitter for removal and connect new transmitter after installation.
<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

**Auxiliary Transmitter**      **Other Transmitter Cost Not Listed**  
Information not provided.

**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	SigmaCD
	Year	2008
	Type	Inductive Output Tube
	IOT Power Type	Three
	Power Capacity	80 kW

**Primary  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTED-100
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	63.4 kW
	Justification for New Transmitter	The existing 80 kW IOT transmitter configuration is equivalent to a magic tee dual transmission system and not the single ULXTE. Therefore, WDIV is budgeting for the ULXTED model. The next step up is a ULXTED-100 which WDIV is budgeting for (see attached)

**Primary  
Transmitter**

**Other Transmitter Costs**

Section	Question	Response
<b>Electrical Service</b>	Service Entrance (3 phases 800A 208V)	Yes
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	300 kVA
	Rigid Conduit and Wiring	Yes
	Size	3 inches
	Length	100.0 feet
	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>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
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**Antennas**

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

## Auxiliary Antenna

### Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	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)	973.0 kW

Manufacturer	
Model	TFU-18DSC
Year	2005

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

Section	Question	Response
<b>New Antenna Description</b>	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
<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)	973.0 kW
	Manufacturer	
	Model	TFU-18DSC- R CT3

Year	2018
Justification for New Antenna	The existing and licensed AUX antenna is a single channel slotted coaxial which cannot accommodate the assigned channel.

## Auxiliary 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	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	6 1/8 inches inches
<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?	Yes

<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes
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**Auxiliary  
Antenna**

**Other Antenna Cost Not Listed**

Information not provided.

**Primary  
Antenna**

**Existing 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 the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
<b>Existing Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power) .....	872.0 kW



Manufacturer	
Model	TFU-27ETT VP R4C130
Year	2008

## Primary Antenna

### New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels/Bays	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Design power capacity in use	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power) .....	720.0 kW
	Manufacturer	
	Model	TFU-23ETT /VP-R 4C130

Year	2018
Justification for New Antenna	The existing primary antenna is a single channel slotted coaxial which cannot accommodate the assigned channel.

## 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	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	6 1/8 inches
<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for a high power antenna?	No
<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
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**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
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Type	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1232 feet per run

Primary

Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Sweep Tests	Sweep tests to confirm line is acceptable on assigned channel.

Auxiliary

Transmission Line

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	19 3/4 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1110 feet per run

Auxiliary  
Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Sweep Tests	Sweep tests to verify operation on assigned channel

**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?	Yes
	Is tower compliant with Rev G?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1000830
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	42° 28' 58.0" N-
	Longitude (NAD83)	083° 12' 19.0" W-
	Overall Structure Height	1062.98 feet
	Support Structure Height	980.96 feet
	Ground Elevation Above Mean Sea Level (AMSL)	685.69 feet



	Structure Type	TOWER - Free Standing or Guyed Structure
	Tower Owner	Graham Media Group, Michigan, Inc.
	Date Constructed	01/01/1988

**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
9618	WXYT-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 documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	Minor Reinforcements needed

## Primary Tower

### Tower Rigging Costs

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

**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	600
	Explanation	It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399. Station does not have available personnel or personnel trained in project management for such complex projects.
<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	Yes
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	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	Yes
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	Yes

Number of Days	30
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 600 hrs (\$90,000 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	Yes
	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 ULXTED-100</b>	<b>\$2,352,382.03</b>	<b>\$2,347,682.03</b>		<b>\$672,559.43</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
3" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$4,900.00	N/A	N/A	N/A
Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$35,000.00	N/A	N/A	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A
Service entrance 3 phase/800 amp/208 volt	\$14,400.00	\$13,700.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 63.4 kW	<i>\$2,157,782.03</i>	\$2,157,782.03	See attached GatesAir quote for ULXTED-100	\$672,559.43	N/A



<b>Auxiliary Transmitter UAXTE-12R44</b>	<b>\$260,976.75</b>	<b>\$260,976.75</b>		<b>\$80,838.67</b>	
Other Electrical Service: Disconnect existing transmitter for removal and connect new transmitter after installation.	<b>\$5,000.00</b>	\$5,000.00	N/A	N/A	N/A
UHF - Air Cooled Solid State Transmitter 7.2 kW	<b>\$255,976.75</b>	\$255,976.75	See attached quote	\$80,838.67	N/A
<b>Sub-total</b>	\$2,613,358.78	\$2,608,658.78	N/A	\$753,398.10	N/A
<b>Total for all systems</b>	\$4,107,593.78	\$4,253,408.78	N/A	\$795,424.75	N/A

## Components

<b>Actual Information</b>	
<b>Description</b>	<b>File Name</b>
Additional Interior RF System	Information not provided.
Standby Exciter and Switch	Information not provided.
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
Transformer 3 phase/480v - 300 KVA	Information not provided.
Switchgear - industrial 800 amp	Information not provided.
Service entrance 3 phase /800 amp/208 volt	Information not provided.

UHF - Liquid Cooled Solid State Transmitter 63.4 kW	<div> <div> <b>Component Description:</b> </div> <div> Gates inv #JW30004541-1 1 third dp Prim TX UL2018116jgv1 </div> </div> <div> <b>Amount:</b> </div> <div> \$672,559.43 </div>
Other Electrical Service: Disconnect existing transmitter for removal and connect new transmitter after installation.	Information not provided.
UHF - Air Cooled Solid State Transmitter 7.2 kW	<div> <div> <b>Component Description:</b> </div> <div> Gates inv #JW30004542-1 1 third dp Aux TX UL2018119jgv1 </div> </div> <div> <b>Amount:</b> </div> <div> \$80,838.67 </div>

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 TFU-23ETT /VP-R 4C130	\$308,530.00	\$293,100.00		\$0.00	
UHF - High Power Top Mount (200- 1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$275,000.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	N/A	N/A
Auxiliary Antenna TFU-18DSC- R CT3	\$282,440.00	\$280,100.00		\$0.00	

Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	\$5,260.00	\$5,000.00	N/A	N/A	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 973 kW input, directional,, horizontally polarized	\$235,000.00	\$235,000.00	N/A	N/A	N/A
<b>Sub-total</b>	\$590,970.00	\$573,200.00	N/A	\$0.00	N/A

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<b>Total for all systems</b>	\$4,107,593.78	\$4,253,408.78	N/A	\$795,424.75	N/A
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**Components**

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	\$6,400.00	\$6,400.00		\$3,660.35	
Sweep Tests	<i>\$6,400.00</i>	\$6,400.00	N/A	\$3,660.35	N/A
Auxiliary Transmission Line	\$6,400.00	\$6,400.00		\$0.00	
Sweep Tests	<i>\$6,400.00</i>	\$6,400.00	N/A	N/A	N/A
Sub-total	\$12,800.00	\$12,800.00	N/A	\$3,660.35	N/A
Total for all systems	\$4,107,593.78	\$4,253,408.78	N/A	\$795,424.75	N/A

Components

Actual Information	
Description	File Name
Sweep Tests	<div>Component Description: Inv WDIV161202 WDIV Line sweep UL20180423 v2</div> <div>Amount: \$3,660.35</div>
Sweep Tests	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	\$381,100.00	\$562,000.00		\$6,000.00	
Structural engineering tower load study for well documented tower	\$12,600.00	\$12,000.00	N/A	\$6,000.00	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$150,000.00	N/A	N/A	N/A

Tall Tower (greater than 500')	\$210,500.00	\$400,000.00	Rigging must be done twice since WDIV has a licensed AUX facility. First rigging for post- auction AUX build- out while main operates as interim. Second rigging for post- auction Main build- out while AUX operates on post- auction after assigned phase.	N/A	N/A
<b>Sub-total</b>	\$381,100.00	\$562,000.00	N/A	\$6,000.00	N/A
<b>Total for all systems</b>	\$4,107,593.78	\$4,253,408.78	N/A	\$795,424.75	N/A

## Components

Actual Information	
Description	File Name



Structural engineering tower load study for well documented tower	<table> <tr> <td data-bbox="711 109 1145 286"> <b>Component Description:</b> </td><td data-bbox="1145 109 1428 286">           Inv: WDIV Structural Analysis UL20180329 2 of 2         </td></tr> <tr> <td data-bbox="711 286 1145 398"> <b>Amount:</b> </td><td data-bbox="1145 286 1428 398">           \$1,000.00         </td></tr> <tr> <td data-bbox="711 398 1145 575"> <b>Component Description:</b> </td><td data-bbox="1145 398 1428 575">           Inv: WDIV Structural Analysis UL20180329 1 of 2         </td></tr> <tr> <td data-bbox="711 575 1145 645"> <b>Amount:</b> </td><td data-bbox="1145 575 1428 645">           \$5,000.00         </td></tr> </table>	<b>Component Description:</b>	Inv: WDIV Structural Analysis UL20180329 2 of 2	<b>Amount:</b>	\$1,000.00	<b>Component Description:</b>	Inv: WDIV Structural Analysis UL20180329 1 of 2	<b>Amount:</b>	\$5,000.00
<b>Component Description:</b>	Inv: WDIV Structural Analysis UL20180329 2 of 2								
<b>Amount:</b>	\$1,000.00								
<b>Component Description:</b>	Inv: WDIV Structural Analysis UL20180329 1 of 2								
<b>Amount:</b>	\$5,000.00								
Minor tower reinforcement /modifications	Information not provided.								
Tall Tower (greater than 500')	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>\$370,815.00</b>	<b>\$358,750.00</b>		<b>\$32,366.30</b>	
Other Engineering Services	<i>\$60,000.00</i>	\$60,000.00	Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 600 hrs (\$90,000 at \$150/hr), & a new OES category has been created & funded with the money removed from PM.	\$6,950.00	N/A
Other Legal Services	<i>\$10,000.00</i>	\$10,000.00	Need	\$96.30	N/A
Additional Field Engineering Service, 30 Days	<i>\$60,000.00</i>	\$60,000.00	N/A	\$6,800.00	N/A
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/A

Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	N/A	N/A	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	\$2,105.00	\$2,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	N/A	N/A
Attorney Fees - 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 - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,000.00	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	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$3,000.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$7,000.00	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

Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$2,500.00	N/A
Project management of the transition	\$94,800.00	\$90,000.00	The added complexity of dual mobilization for tower rigging as well as the complexity of this project. \$60,000 has been moved from PM to the Other Engineering Services component (181116jg)	\$6,020.00	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
<b>Sub-total</b>	\$370,815.00	\$358,750.00	N/A	\$32,366.30	N/A
<b>Total for all systems</b>	\$4,107,593.78	\$4,253,408.78	N/A	\$795,424.75	N/A

## Components

**Actual Information**  
**Description**

**File Name**

Other Engineering Services	<div> <b>Component Description:</b> <div> KGA inv #947-62  Other Eng Srvcs  Aug - Dec 2017  UL2018116jgv1 </div> </div> <div> <b>Amount:</b> <div>\$7,665.00</div> </div>
	<div> <b>Component Description:</b> <div> KGA inv #947-114  Other Eng Srvcs  July - Oct 2018  UL20190206jgv2 </div> </div> <div> <b>Amount:</b> <div>\$6,950.00</div> </div>
Other Legal Services	<div> <b>Component Description:</b> <div> WDIV Covington inv  #60812717 Review  and file 2018 Q2  Progress Report  UL20181019jgv1 </div> </div> <div> <b>Amount:</b> <div>\$34.20</div> </div>
	<div> <b>Component Description:</b> <div> WDIV Covington inv  #60790165 Review  and file Progress  Report  UL20181019jgv1 </div> </div> <div> <b>Amount:</b> <div>\$62.10</div> </div>

<p>Additional Field Engineering Service, 30 Days</p>	<table> <tr> <td data-bbox="699 174 1007 208"><b>Component Description:</b></td><td data-bbox="1141 174 1374 483">Inv: WDIV Antenna Repurposing Study, Transmission Line Repurposing Study, Transmitter Repurposing Study &amp; Parameter Review</td></tr> <tr> <td data-bbox="699 539 807 566"><b>Amount:</b></td><td data-bbox="1141 495 1294 566">UL20180403 \$2,800.00</td></tr> <tr> <td data-bbox="699 678 1007 712"><b>Component Description:</b></td><td data-bbox="1141 678 1362 824">Inv: WDIV Addl Fld Eng Srv TX Mask Fltr Elec HVAC Solution</td></tr> <tr> <td data-bbox="699 880 807 907"><b>Amount:</b></td><td data-bbox="1141 835 1294 907">UL20180403 \$1,250.00</td></tr> <tr> <td data-bbox="699 1014 1007 1048"><b>Component Description:</b></td><td data-bbox="1141 1014 1378 1641">Inv: WDIV Outside Prof Svcs 1) CAS planning procuremnt &amp; oversight, coord twr mapping &amp; analyses 2) CAS planning procuremnt, oversight &amp; develop an upgrade or replacement solution for twr 3) CAS planning procuremnt, oversight &amp; coord twr mods</td></tr> <tr> <td data-bbox="699 1697 807 1724"><b>Amount:</b></td><td data-bbox="1141 1653 1294 1724">UL20180403 \$2,750.00</td></tr> </table>	<b>Component Description:</b>	Inv: WDIV Antenna Repurposing Study, Transmission Line Repurposing Study, Transmitter Repurposing Study & Parameter Review	<b>Amount:</b>	UL20180403 \$2,800.00	<b>Component Description:</b>	Inv: WDIV Addl Fld Eng Srv TX Mask Fltr Elec HVAC Solution	<b>Amount:</b>	UL20180403 \$1,250.00	<b>Component Description:</b>	Inv: WDIV Outside Prof Svcs 1) CAS planning procuremnt & oversight, coord twr mapping & analyses 2) CAS planning procuremnt, oversight & develop an upgrade or replacement solution for twr 3) CAS planning procuremnt, oversight & coord twr mods	<b>Amount:</b>	UL20180403 \$2,750.00
<b>Component Description:</b>	Inv: WDIV Antenna Repurposing Study, Transmission Line Repurposing Study, Transmitter Repurposing Study & Parameter Review												
<b>Amount:</b>	UL20180403 \$2,800.00												
<b>Component Description:</b>	Inv: WDIV Addl Fld Eng Srv TX Mask Fltr Elec HVAC Solution												
<b>Amount:</b>	UL20180403 \$1,250.00												
<b>Component Description:</b>	Inv: WDIV Outside Prof Svcs 1) CAS planning procuremnt & oversight, coord twr mapping & analyses 2) CAS planning procuremnt, oversight & develop an upgrade or replacement solution for twr 3) CAS planning procuremnt, oversight & coord twr mods												
<b>Amount:</b>	UL20180403 \$2,750.00												
<p>RF Exposure Measurements</p>	<p>Information not provided.</p>												
<p>Comprehensive coverage verification via field study, if needed</p>	<p>Information not provided.</p>												

FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.
ASR modification (prepare FCC Form 854)	Information not provided.
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	Information not provided.
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	Information not provided.
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	<div> <div> <b>Component Description:</b> </div> <div> Inv: WDIV Outside Prof Svcs - Prepare eng section of Form FCC Const Permit App for Main Facility UL20180403 </div> </div> <div> <b>Amount:</b> </div> <div> \$3,000.00 </div>



Perform engineering study for new channel assignment and antenna development	<p><b>Component Description:</b></p> <p>Inv: WDIV Outside Prof Svcs - Perform eng study for new ch assignment and antenna development UL20180403</p> <p><b>Amount:</b></p> <p>\$7,000.00</p>
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
Prepare and or review reimbursement form	<p><b>Component Description:</b></p> <p>Inv: WDIV Outside Prof Svcs - Prepare and or Review Reimbursement Form UL20180403</p> <p><b>Amount:</b></p> <p>\$2,500.00</p>
Project management of the transition	<p><b>Component Description:</b></p> <p>Inv 947-21 WDIV Project Management through Aug 2017 UL20180504jgv3</p> <p><b>Amount:</b></p> <p>\$3,500.00</p> <p><b>Component Description:</b></p> <p>KGA inv #947-56 Form 387 2018 Q1 UL2018116jgv1</p> <p><b>Amount:</b></p> <p>\$300.00</p> <p><b>Component Description:</b></p> <p>KGA inv #947-58 Actual Cost invs 180403 UL2018116jgv1</p> <p><b>Amount:</b></p> <p>\$720.00</p>

	<b>Component Description:</b>  <b>Amount:</b>	KGA inv #947-82 Form 387 2018 Q2 UL2018116jgv1 \$300.00
	<b>Component Description:</b>  <b>Amount:</b>	KGA inv #947-110 Form 387 2018 Q3 UL2018116jgv1 \$300.00
	<b>Component Description:</b>  <b>Amount:</b>	Inv: WDIV 2017Q4 387 UL20180403 \$300.00
	<b>Component Description:</b>  <b>Amount:</b>	KGA inv #947-59 Actual Cost invs 180329 UL2018116jgv1 \$300.00
	<b>Component Description:</b>  <b>Amount:</b>	Inv: WDIV 2017Q3 387 UL20180403 \$300.00
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.	

## 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>\$138,550.00</b>	<b>\$138,000.00</b>		<b>\$0.00</b>	
MVPD Notification of Channel Change	<i>\$2,000.00</i>	\$2,000.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
Equipment Storage	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
Non-zoning permits	<i>\$25,000.00</i>	\$25,000.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$138,550.00</b>	<b>\$138,000.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$4,107,593.78</b>	<b>\$4,253,408.78</b>	<b>N/A</b>	<b>\$795,424.75</b>	<b>N/A</b>

## Components

Information not provided.

Cost Information	Grand Total		
	Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$4,107,593.78	\$4,253,408.78
			\$795,424.75

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

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	<p>WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.</p>	
		<ol style="list-style-type: none"> <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>Jeffrey C Gehman</b>  <i>Engineering Associate</i></p> <p>02/06/2019</p>

## Attachments