



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **41458** | Service: **DTV** | Call **WHIO-TV** | Channel: **33 (UHF)** |  
ID:  
File **0000027862**  
Number:  
FRN: **0001842509** | Date **04/30**  
Submitted: **/2019**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>MIAMI VALLEY BROADCASTING CORPORATION</b> Doing Business As: MIAMI VALLEY BROADCASTING CORPORATION	Sr. Director of Technology & Plant Operations 1611 SOUTH MAIN STREET DAYTON, OH 45409 United States	+1 (937) 743-6703	dave.thomas@coxinc.com	Corporation

## Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

## Preparer Contact Name and Information

Applicant	Address	Phone	Email
<b>Dave Thomas</b> <i>Senior Director Technology and Plant Operation Miami Valley Broadcasting Corporation</i>	Dave Thomas 1611 South Main St Dayton, OH 45409 United States	+1 (937) 743-6703	dave.thomas@coxinc.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		There is space in the transmitter building for the new Main and Aux transmitters after building modification is complete. WHIO TV will run the current main transmitter to the Aux Antenna during the installation of the New Main Transmitter.

**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	Back-Up Tranmsitter
	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	2008
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	14 kW

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

Section	Question	Response
<b>New Transmitter</b>	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-24
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	16 kW
	Justification for New Transmitter	Current Diamond CD transmitter cannot be retuned to new channel 33.

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

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

	Other Electrical Service	Yes
	Description	Install (1) 400A distribution panel and (1) 150 KVA Transformer
<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	Sigma CD
	Year	2001
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	40.2 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?	Yes
	Manufacturer	
	Model	ULXTE-90
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	56.4 kW
	Justification for New Transmitter	Current Sigma CD transmitter cannot be retuned to new channel 33.

**Primary  
Transmitter**

**Other Transmitter Costs**

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

	Description	Install (1) 1200A Distribution panel and (1) 300KVA transformer
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	15 tons
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	Yes
	Size	2270.0 square feet
<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**  
Information not provided.



**Antennas**

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

**Auxiliary  
Antenna****Existing Antenna Information**

Section	Question	Response
<b>Existing Antenna Description</b>	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Back-up Antenna
	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	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) .....	1000.0 kW

Manufacturer	
Model	TFU- 28DSC-R CT3
Year	2004

## Auxiliary Antenna

### New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Auxiliary (Backup)
	Description of Use	Back-up Antenna
	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	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) .....	854.0 kW
	Manufacturer	

Model	ATW26HS3-HSO-33H
Year	2017
Justification for New Antenna	Current antenna cannot be retuned to new channel 33.

## 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?	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?	Yes
<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
Aux Antenna Sweep 1		Aux Antenna Sweep 1- will reuse line check to make sure can handle full power transmitter.
Aux Antenna Sweep 2		Aux Antenna Sweep 2- will reuse line made repairs from sweep 1 - verify line at full power
Rigging Aux Antenna		Rigging Aux Antenna - remove old and install new antenna

**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?	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) .....	1000.0 kW

Manufacturer	
Model	TFU- 30GTH-R 4C130
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?	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) .....	854.0 kW
	Manufacturer	

Model	ATW24HS3- HTO-33H
Year	2017
Justification for New Antenna	Current antenna cannot be retuned to new channel 33.

## 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?	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?	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

**Primary  
Antenna**

**Other Antenna Cost Not Listed**

Name	Description
Additional Main Ant sweep	Additional Main Ant sweep - will reuse line during repack. This is the initial sweep for line prior to removing current antenna.

**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	6 1/8 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1200 feet per run

Primary  
Transmission Line

Other Transmission Line Expenses Not Listed  
Information not provided.

Auxiliary  
Transmission Line

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Auxiliary (Backup)
	Description of Use	Feeds Aux Antenna
	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 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	960 feet per run

Auxiliary  
Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
New gaskets, seals, watchbands, for full power operation	New gaskets, seals, watchbands - needed to make Aux line usable during new main antenna install - sweep showed that line could not take full power at time of sweep

**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**

**Add Tower**

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	No
	Is tower documented for structural analysis?	Yes
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1016460
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	39° 44' 02.0" N-
	Longitude (NAD83)	084° 44' 53.0" W-
	Overall Structure Height	1098.80 feet
	Support Structure Height	1018.69 feet
	Ground Elevation Above Mean Sea Level (AMSL)	950.12 feet

	Structure Type	TOWER - Free Standing or Guyed Structure
	Tower Owner	IWG Towers Assets II, LLC
	Date Constructed	01/01/1953

**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
14245	WHKO	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?	Yes



Primary  
Tower

Other Tower Expenses Not Listed

Name	Description
STRUCTURAL ANALYSIS DESIGN	STRUCTURAL ANALYSIS DESIGN

**Outside  
Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	No
	Number of Hours	N/A
	Explanation	N/A
<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	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	No
	Address transition timing and coordination issues w/ other stations and wireless providers	No
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

**Outside Professional Services Costs**

**Other Professional Services Expenses Not Listed**

Name	Description
<b>RF Consultant Pattern, Transmitter, Antenna</b>	RF Consultant Pattern, Transmitter, Antenna

## 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	Yes
	Non-zoning permits	Yes
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	Yes
	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?	No
	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 ULXTE-90</b>	<b>\$1,965,863.00</b>	<b>\$1,700,142.61</b>		<b>\$1,053,026.34</b>	
15 Ton system	\$55,800.00	\$50,820.00	Additional cooling needed where new main & aux transmitters will be located - quote attached.	\$25,410.00	N/A
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	\$1,788,000.00	\$1,535,614.61	Current Sigma CD TX cannot be retuned - letter from Gates Air attached. Quote for both IOT TX and Solid State TX attached - will go with Solid State TX since its cheaper	\$946,147.34	N/A

Other Electrical Service: Install (1) 1200A Distribution panel and (1) 300KVA transformer	<b>\$34,436.00</b>	\$34,436.00	Quote attached	\$17,218.00	N/A
Other -- Building Addition Size: 2270.0	<b>\$49,427.00</b>	\$49,427.00	Building Renovation for new transmitter area - Quote attached	\$49,329.00	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$29,845.00	Quote attached	\$14,922.00	N/A
<b>Auxiliary Transmitter ULXTE-24</b>	<b>\$743,033.00</b>	<b>\$631,471.84</b>		<b>\$382,382.44</b>	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$587,441.84	N/A	\$360,367.44	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$23,197.00	Quote attached	\$11,598.50	N/A
Other Electrical Service: Install (1) 400A distribution panel and (1) 150 KVA Transformer	<b>\$20,833.00</b>	\$20,833.00	Quote attached	\$10,416.50	N/A
<b>Sub-total</b>	<b>\$2,708,896.00</b>	<b>\$2,331,614.45</b>	<b>N/A</b>	<b>\$1,435,408.78</b>	<b>N/A</b>

<b>Total for all systems</b>	\$5,276,978.49	\$5,080,501.01	N/A	\$2,352,595.25	N/A
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## Components

Actual Information	
Description	File Name
15 Ton system	<p><b>Component Description:</b> 50% down payment 15 ton HVAC unit for new transmitter room</p> <p><b>Amount:</b> \$25,410.00</p>
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	<p><b>Component Description:</b> 1/3 payment prior to shipment.</p> <p><b>Amount:</b> \$473,073.67</p> <p><b>Component Description:</b> 1/3 down payment for new main ULXTE 90 transmitter</p> <p><b>Amount:</b> \$473,073.67</p>
Other Electrical Service: Install (1) 1200A Distribution panel and (1) 300KVA transformer	<p><b>Component Description:</b> New attachment includes cover letter requested by reviewer - 50% down payment</p> <p><b>Amount:</b> \$17,218.00</p>



Other -- Building Addition Size: 2270.0	<b>Component Description:</b>  <b>Amount:</b>	New attachment includes cover letter requested - Transmitter building renovations \$49,329.00
Switchgear - industrial 800 amp	<b>Component Description:</b>  <b>Amount:</b>	New attachment includes cover letter requested with electrical costs and billing detail. \$14,922.00
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	<b>Component Description:</b>  <b>Amount:</b>  <b>Component Description:</b>  <b>Amount:</b>	1/3 payment prior to shipment \$180,183.72  1/3 down payment for new ULXTE 24 transmitter \$180,183.72
Switchgear - industrial 800 amp	<b>Component Description:</b>  <b>Amount:</b>	New attachment includes cover letter requested -50% down payment \$11,598.50

Other Electrical Service: Install (1) 400A distribution panel and (1) 150 KVA Transformer	<table><tr><td data-bbox="707 94 1114 324"><b>Component Description:</b></td><td data-bbox="1114 94 1433 324">New attachment includes cover letter - 50% down payment</td></tr><tr><td data-bbox="707 324 1114 432"><b>Amount:</b></td><td data-bbox="1114 324 1433 432">\$10,416.50</td></tr></table>	<b>Component Description:</b>	New attachment includes cover letter - 50% down payment	<b>Amount:</b>	\$10,416.50
<b>Component Description:</b>	New attachment includes cover letter - 50% down payment				
<b>Amount:</b>	\$10,416.50				

## 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 ATW24HS3-HTO-33H</b>	<b>\$260,130.00</b>	<b>\$266,741.19</b>		<b>\$119,012.50</b>	
UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	\$247,000.00	\$253,941.19	Price from ERI for antenna model# ATW24HS3-HTO-33H - see attached quote includes mount.	\$119,012.50	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	Sweep line prior to repack	N/A	N/A
Additional Main Ant sweep	<i>\$6,400.00</i>	\$6,400.00	Widelity cost - sweep line after new antenna installed.	N/A	N/A
<b>Auxiliary Antenna ATW26HS3-HSO-33H</b>	<b>\$439,129.13</b>	<b>\$433,139.01</b>		<b>\$194,535.50</b>	
Aux Antenna Sweep 2	<i>\$6,400.00</i>	\$6,400.00	Widelity cost - made repairs from aux sweep 1 tested full power for repack.	N/A	N/A

Aux Antenna Sweep 1	<b>\$6,400.00</b>	\$6,400.00	Widelity cost - sweep aux line after antenna install	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 854 kW input, directional,, horizontally polarized	<b>\$210,478.13</b>	\$210,478.13	see attached quote	\$104,180.00	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	Sweep Aux check for full power use during repack	N/A	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$17,749.88	N/A	N/A	N/A
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

Rigging Aux Antenna	<b>\$180,711.00</b>	\$180,711.00	Quote attached FYI -No place to add in rigging cost section	\$90,355.50	N/A
<b>Sub-total</b>	\$699,259.13	\$699,880.20	N/A	\$313,548.00	N/A
<b>Total for all systems</b>	\$5,276,978.49	\$5,080,501.01	N/A	\$2,352,595.25	N/A

## Components

Actual Information	
Description	File Name
UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	<b>Component Description:</b> New frequency Main Antenna 50% down payment <b>Amount:</b> \$119,012.50
Sweep test of existing antenna	Information not provided.
Additional Main Ant sweep	Information not provided.
Aux Antenna Sweep 2	Information not provided.
Aux Antenna Sweep 1	Information not provided.
UHF - High Power, Side Mount, basic slot antenna, 854 kW input, directional,, horizontally polarized	<b>Component Description:</b> New Frequency Aux antenna 50% down payment, <b>Amount:</b> \$104,180.00
Sweep test of existing antenna	Information not provided.
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.

Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.				
Rigging Aux Antenna	<table><tr><td><b>Component Description:</b></td><td>50% down payment of \$180,711.00</td></tr><tr><td><b>Amount:</b></td><td>\$90,355.50</td></tr></table>	<b>Component Description:</b>	50% down payment of \$180,711.00	<b>Amount:</b>	\$90,355.50
<b>Component Description:</b>	50% down payment of \$180,711.00				
<b>Amount:</b>	\$90,355.50				

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	\$0.00	\$0.00		\$0.00	
Auxiliary Transmission Line	\$53,124.00	\$53,124.00		\$0.00	
New gaskets, seals, watchbands, for full power operation	<i>\$53,124.00</i>	\$53,124.00	Repairs from Aux RF sweep 1	N/A	N/A
Sub-total	\$53,124.00	\$53,124.00	N/A	\$0.00	N/A
Total for all systems	\$5,276,978.49	\$5,080,501.01	N/A	\$2,352,595.25	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>\$1,563,377.16</b>	<b>\$1,749,685.16</b>		<b>\$565,827.57</b>	
Serious tower reinforcement /modifications	\$1,052,000.00	\$1,300,216.00	This is from a quote received from ERI on 5/23/17 totaling \$1,450,108 - quote is uploaded	\$348,928.57	N/A
Tower Helicopter Lift	<i>\$241,312.50</i>	\$241,312.50	Quote attached	\$216,899.00	N/A
STRUCTURAL ANALYSIS DESIGN	<i>\$33,264.66</i>	\$33,264.66	Structural analysis quote 1- \$23,612 (attached) Structural analysis quote 2 - \$9,652 (attached)	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$149,892.00	Tower modification estimate 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	\$25,000.00	N/A	N/A	N/A
<b>Sub-total</b>	\$1,563,377.16	\$1,749,685.16	N/A	\$565,827.57	N/A
<b>Total for all systems</b>	\$5,276,978.49	\$5,080,501.01	N/A	\$2,352,595.25	N/A

## Components

Actual Information	
Description	File Name
Serious tower reinforcement /modifications	<div> <div>Component Description:</div> <div>Revised invoice and original quote submitted for Geo technical survey foundation reinforcement design</div> </div> <div> <div>Amount:</div> <div>\$9,000.00</div> </div> <div> <div>Component Description:</div> <div>Change order for foundations see attached quote for details.</div> </div> <div> <div>Amount:</div> <div>\$60,241.79</div> </div> <div> <div>Component Description:</div> <div>70% Final Payment for tower foundations.</div> </div> <div> <div>Amount:</div> <div>\$111,948.67</div> </div>

<b>Component Description:</b>	20% down payment on 1098' tower modifications.
<b>Amount:</b>	\$110,043.20

<b>Component Description:</b>	30% down payment of quote in attached file
<b>Amount:</b>	\$47,978.00

<b>Component Description:</b>	Structural Reanalysis and report for tower 5,000
<b>Amount:</b>	\$5,000.00

<b>Component Description:</b>	Tower modification construction layout field survey
<b>Amount:</b>	\$1,600.00

<b>Component Description:</b>	Tower Foundation testing and inspections
<b>Amount:</b>	\$3,116.91

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Tower Helicopter Lift	<div> <div> <b>Component Description:</b> 50% down payment for rigging &amp; Installation of \$77,728.00 </div> <div> <b>Amount:</b> \$38,864.00 </div> </div> <div> <div> <b>Component Description:</b> Structural Installation for helicopter service (down payment) </div> <div> <b>Amount:</b> \$178,035.00 </div> </div>
STRUCTURAL ANALYSIS DESIGN	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	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>\$154,937.20</b>	<b>\$149,372.20</b>		<b>\$35,960.90</b>	
RF Consultant Pattern, Transmitter, Antenna	<i>\$43,122.20</i>	\$43,122.20	Merrill Weiss RF Consultant Costs - estimated \$30,000 - uploaded quote dated 7/28 /17. Cooley LLP - Prepare form 399 - \$13,122.20	\$34,197.20	Did not include legal fees (Cooley LLP) for reviewing the development of WHIO-TV form 399.
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	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	\$55.80	N/A

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$1,707.90	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
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
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	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	N/A	N/A
<b>Sub-total</b>	\$154,937.20	\$149,372.20	N/A	\$35,960.90	N/A
<b>Total for all systems</b>	\$5,276,978.49	\$5,080,501.01	N/A	\$2,352,595.25	N/A

## Components

Actual Information Description	File Name
RF Consultant Pattern, Transmitter, Antenna	<div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>TV Repack Quarterly Progress report process.</div> <div>\$74.80</div> </div>
	<div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>Legal Repack reimbursement issues</div> <div>\$448.80</div> </div>
	<div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>See detail - only charges for form 399 are professional services.</div> <div>\$485.60</div> </div>
	<div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>See detail - Legal review/ submissions/ revisions to form 399 development.</div> <div>\$2,445.80</div> </div>

	<b>Component Description:</b> Research TV <b>Amount:</b> Repack Allocation \$55.80
	<b>Component Description:</b> 295.75 hour for TV repack transmitter & antenna analysis for new channel assignment. <b>Amount:</b> \$21,075.00
	<b>Component Description:</b> See detail only charges for preparing form 399 are for professional services <b>Amount:</b> \$8,200.30
	<b>Component Description:</b> Legal Form 399 Preparation <b>Amount:</b> \$1,411.10
Comprehensive coverage verification via field study, if needed	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	<b>Component Description:</b> Research repack aux antenna license. <b>Amount:</b> \$55.80

<p>Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application</p>	<table> <tr> <td data-bbox="707 174 1015 208"><b>Component Description:</b></td><td data-bbox="1150 174 1382 286">See detail - only charges for Construction Permit</td></tr> <tr> <td data-bbox="707 297 815 331"><b>Amount:</b></td><td data-bbox="1150 297 1246 331">\$111.60</td></tr> <tr> <td data-bbox="707 432 1015 465"><b>Component Description:</b></td><td data-bbox="1150 432 1374 544">Discuss construction permit application issues</td></tr> <tr> <td data-bbox="707 555 815 589"><b>Amount:</b></td><td data-bbox="1150 555 1246 589">\$149.60</td></tr> <tr> <td data-bbox="707 689 1015 723"><b>Component Description:</b></td><td data-bbox="1150 689 1382 801">Develop Construction Permit</td></tr> <tr> <td data-bbox="707 768 815 801"><b>Amount:</b></td><td data-bbox="1150 768 1267 801">\$1,446.70</td></tr> </table>	<b>Component Description:</b>	See detail - only charges for Construction Permit	<b>Amount:</b>	\$111.60	<b>Component Description:</b>	Discuss construction permit application issues	<b>Amount:</b>	\$149.60	<b>Component Description:</b>	Develop Construction Permit	<b>Amount:</b>	\$1,446.70
<b>Component Description:</b>	See detail - only charges for Construction Permit												
<b>Amount:</b>	\$111.60												
<b>Component Description:</b>	Discuss construction permit application issues												
<b>Amount:</b>	\$149.60												
<b>Component Description:</b>	Develop Construction Permit												
<b>Amount:</b>	\$1,446.70												
<p>RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application</p>	<p>Information not provided.</p>												
<p>Prepare engineering section of FCC Form 2100 (main), License to Cover Application</p>	<p>Information not provided.</p>												
<p>RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application</p>	<p>Information not provided.</p>												
<p>Perform engineering study for new channel assignment and antenna development</p>	<p>Information not provided.</p>												
<p>Prepare engineering section of FCC Form 2100 (main), Construction Permit Application</p>	<p>Information not provided.</p>												



## 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>\$97,385.00</b>	<b>\$96,825.00</b>		<b>\$1,850.00</b>	
MVPD Notification of Channel Change	<i>\$500.00</i>	\$500.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
Local Zoning	<i>\$55,000.00</i>	\$55,000.00	N/A	\$1,850.00	N/A
Non-zoning permits	<i>\$5,000.00</i>	\$5,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$5,000.00</i>	\$5,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$5,000.00</i>	\$5,000.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	<i>\$15,000.00</i>	\$15,000.00	N/A	N/A	N/A

<b>Sub-total</b>	\$97,385.00	\$96,825.00	N/A	\$1,850.00	N/A
<b>Total for all systems</b>	\$5,276,978.49	\$5,080,501.01	N/A	\$2,352,595.25	N/A

## Components

<b>Actual Information Description</b>	<b>File Name</b>
MVPD Notification of Channel Change	Information not provided.
DTV Medical Facility Notification	Information not provided.
FCC Filing Fees - Form 2100 license to cover application	Information not provided.
Local Zoning	<p><b>Component Description:</b> Permit document fee</p> <p><b>Amount:</b> \$1,850.00</p>
Non-zoning permits	Information not provided.
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.
Equipment Delivery and Handling Charges	Information not provided.
Develop and air announcement of upcoming channel change	Information not provided.

**Cost  
Information**

**Grand Total**

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$5,276,978.49	\$5,080,501.01	\$2,352,595.25

**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.

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.

**Dave Thomas**  
*Senior Director Operations*

04/30/2019

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"> <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>Dave Thomas</b>  <i>Senior Director Operations</i></p> <p>04/30/2019</p>

## Attachments