

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

			-			
Facility	41458	Service: DTV	Call	WHIO-TV	Channel: 33 (UHF)	
ID:			Sign:			
File	000002	7862				
Number:						
FRN: 000	01842509	Date	09/16			
		Submitted:	/2020			

Applicant Name, Type, and Contact Information

Information

Applicant	Address	Phone	Email	Applicant Type
MIAMI VALLEY BROADCASTING CORPORATION 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 Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Preparer Contact Name and Information

Contact Information	Applicant	Address	Phone	Email
	Dave Thomas	Dave Thomas	+1 (937) 259-	dave.
	Senior Director Technology and	1611 South	1648	thomas@coxinc.
	Plant Operation	Main St		com
	Miami Valley Broadcasting	Dayton, OH		
	Corporation	45409		
		United States		

Broadcaster	Question	Response
Information and Transition Plan	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	Existing Transmitter Information					
Transmitter	Section	Question	Response			
	Existing Transmitter Description	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			
	Existing Transmitter	Manufacturer				
	Manufacturer and Type	Model	Diamond			
		Year	2008			
		Туре	Solid State			
		Solid State Cooling	Air Cooled			
		Solid State Power Capacity	14 kW			

Auxiliary	New Transmitter Costs					
Transmitter	Section	Question	Response			
	New Transmitter	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	16.1 kW			
		Justification for New Transmitter	Current Diamond CD transmitter cannot be retuned to new channel 33.			

Auxiliary	Other Transmitter Costs					
Transmitter	r 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			
			1			

	Other Electrical Service	Yes
	Description	Install (1) 400A distribution panel and (1) 150 KVA Transformer
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Туре	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 leashold 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

Other Transmitter Cost Not Listed AuxiliaryOther Transmitter CoTransmitterInformation not provided.

Primary	Existing Transmitter Information					
Transmitter	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				
	Manufacturer and Type	Model	Sigma CD			
		Year	2001			
		Туре	Inductive Output Tube			
		IOT Power Type	Two			
		Power Capacity	40.2 kW			

Existing Transmitter Information

Primary	New Transmitter Costs					
Transmitter	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	Other Transmitter Costs			
Transmitter	Section	Question	Response	
E	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
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Туре	Cooling Only
	Size	15 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	Yes
	Size	2270.0 square feet
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	Other Transmitter Cost Not Listed		
Transmitter	Name	Description	
	Rent electrical generator	45 days electrical generator rental with fuel, start up, commissioning, and cut over	

Antennas Section		Question	Response
Antenna Rela	ated Expenses	Do you have antenna related expenses?	Yes

Auxiliary	Existing Antenna Information			
Antenna	Section	Question	Response	
	Existing Antenna Description	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	
	Existing Antenna	Class	Full Power	
	Manufacturer and Type	Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	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	New Antenna Costs		
Antenna	Section	Question	Response
New A	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	Class	Full Power
	Manufacturer and Types	Mounting	Side Mount
		Antenna position in stack	Not in Stack
		Polarization	Horizontal
		Туре	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	Other Antenna Costs			
Antenna	Section	Question	Response	
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No	
		Туре		
		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?	Yes	
	Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes	

Auxiliary	Other Antenna Cost Not Listed		
Antenna	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	Existing Antenna Information			
Antenna	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 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	Class	Full Power	
	Manufacturer and Type	Mounting	Top Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	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	New Antenna Costs			
Antenna	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	
		Туре	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	
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?		
		Туре		
		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?		
	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	

Other	Antenna	Cost	Not	Listed
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Primary	
Antenna	

Name	Description
New Main Antenna Burnout	Main tx line burned out causing arcing & soot inside new ERI main antenna - price includes helicopter (2) picks remove & replace and shipping / cleaning antenna at ERI factory.
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.

Transmissior	n Seffien	Question	Response
	Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

Existing Transmission Line Auxiliary Existing

smissior	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
Existing Transmission Line Manufacturer and Type		Is the existing transmission line shared with another station or stations?	No
		Is Transmission Line in operating condition?	Yes
	Line Manufacturer and	Manufacturer	Dielectric
		Туре	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

Other Transmission Line Expenses Not Listed Auxiliary Descriptio

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

Primary	Add Transmission Line			
Transmissio	n Line Section	Question	Response	
	Existing Transmission Line Description	Type of change	Purchase New	
		Use	Primary (Main)	
		Description of Use	N/A	
		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		
		Туре	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	

Add Transmission Line

Primary	New Transmission Line			
Transmissio	Section	Question	Response	
	New Transmission Line Costs	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Туре	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	1215 feet per run	
		Justification for New Transmission Line	Existing Dielectric line was attempted to be used on new channel, unfortunately at 940' there was a burnout and line needed to be replaced. We replaced with new ERI transmission line.	

Primary Other Transmission Line Expenses Not Listed

Transmission	Naine	Description	
	Install new ERI main transmission line	Remove old Dielectric tx line due to burnout and install new ERI tx line	

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

Primary	Add Tower				
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 Modification Costs

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

Primary Tower Rigging Costs

Tower

Tower

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	Section	Question	Response
	Services Costs Outside Project Management Services	Do you require outside project management services?	No
		Number of Hours	N/A
		Explanation	N/A
	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	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
	Attorney and Other Outside Consulting Services	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
RF Field Engineering Services	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 Other Professional Services Expenses Not Listed

Professional	Services Costs	Description	
	RF Consultant Pattern, Transmitter, Antenna	RF Consultant Pattern, Transmitter, Antenna	

Other	Section	Question	Response
Expenses	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	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
	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?	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

Other Expenses Not Listed

Expenses Information not provided.

Transmitters

Cost Information

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 ULXTE-90	\$1,996,882.13	\$1,797,222.57		\$1,797,124.57	
Rent electrical generator	\$31,019.13	\$31,019.13	The electric service to the building is running the channel 41 transmitter w/ assoc equip, (2) full power radio stations, (3) radio STL's, weather radar, and (4) a/c units. There's not enough capacity to add commissioning of the channel 33 TX equipment	\$31,019.13	N/A
Other Building Addition Size: 2270.0	\$49,427.00	\$49,427.00	Building Renovation for new transmitter area - Quote attached	\$49,329.00	N/A

Other Electrical Service: Install (1) 400A distribution panel and (1) 150 KVA Transformer	\$20,833.00	\$20,833.00	Quote attached	\$20,833.00	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$23,197.00	Quote attached	\$23,197.00	N/A
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$577,135.39	Original quote Q-75124 plus revised quotes: Q- 82449 and Q- 79460	\$577,135.39	N/A
Sub-total	\$2,739,915.13	\$2,418,387.96	N/A	\$2,418,289.96	N/A
Total for all systems	\$6,304,763.84	\$6,139,145.15	N/A	\$4,422,913.22	N/A

Components

Actual Information	
Description	File Name

Rent electrical generator		
	Component Description:	Did not have enough building power to run old transmitter on channel 41 and new main transmitter at the same time. Needed to rent generator to install and commission new transmitter for channel 33.
	Amount:	\$31,019.13
Other Building Addition Size: 2270.0		
0120. 2210.0	Component Description:	New attachment includes cover letter requested - Transmitter building renovations
	Amount:	\$49,329.00
Other Electrical Service:		
Install (1) 1200A Distribution panel and (1) 300KVA transformer	Component Description: Amount:	2nd 50% payment \$17,218.00
	Component Description:	New attachment includes cover
		letter requested by reviewer - 50% down payment

Component Description: Amount:	1/3 down payment for new main ULXTE 90 transmitter \$473,073.67
Component Description:	Original quote Q- 75260 and (2) revised quotes Q- 82006 & Q-79456 included in attachment \$461,385.07
Component Description:	Final Payment Main Transmitter with change order Q-84532
Amount: Component Description: Amount:	\$194,143.03 1/3 payment prior to shipment. \$473,073.67
Component Description:	50% down payment 15 ton HVAC unit for new transmitter room
Amount: Component Description: Amount:	\$25,410.00 Final invoice 2 of 2 \$25,410.00
	Amount:Component Description:Amount:Component Description:Amount:Component Description:Amount:Component Description:Amount:Component Description:Amount:Component Description:

Switchgear - industrial 800 amp	Component Description: Amount:	2nd 50% payment \$14,923.00
	Component Description:	New attachment includes cover letter requested with electrical costs and billing
	Amount:	detail. \$14,922.00
Other Electrical Service: Install (1) 400A distribution panel and (1) 150 KVA Transformer	Component Description:	New attachment includes cover letter - 50% down
	Amount:	payment \$10,416.50
	Component Description: Amount:	2nd 50% payment \$10,416.50
Switchgear - industrial 800		
amp	Component Description: Amount:	2nd 50% payment \$11,598.50
	Component Description:	New attachment includes cover letter requested -50% down
	Amount:	payment \$11,598.50

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	Component Description:	1/3 down payment for new ULXTE 24 transmitter \$180,183.72
	Amount.	ψ100,100.72
	Component Description:	1/3 payment prior to shipment
	Amount:	\$180,183.72
	Component Description:	Original Quote Q- 75124 plus revised quotes Q- 82499 and Q- 79460
	Amount:	\$148,120.44
	Component Description:	Final invoice aux transmitter attached quotes Q-75124, Q- 82449, Q-79460
	Amount:	\$68,647.51

Antennas

Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna ATW24HS3- HTO-33H	\$720,130.00	\$737,213.67		\$264,413.67	
UHF - High Power Top Mount (200- 1000 kW), One station antenna, horizontally polarized	\$247,000.00	\$264,413.67	Price from ERI for antenna model# ATW24HS3- HTO-33H - see attached quote includes mount.	\$264,413.67	The original quote 253,525 add tax including 1 bury mount and 1 tune and test sweep. There was also 1 day weather delay, and some additional parts were needed after the tower crew arrived. Also the sales tax rate increased from an estimated 7.25 to 7.5
Additional Main Ant sweep	\$6,400.00	\$6,400.00	Widelity cost - sweep line after new antenna installed.	N/A	N/A

New Main Antenna Burnout	\$460,000.00	\$460,000.00	N/A	\$0.00	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	Sweep line prior to repack	N/A	N/A
Auxiliary Antenna ATW26HS3- HSO-33H	\$477,513.67	\$471,523.55		\$312,243.14	
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	\$0.00	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
Sweep test of existing antenna	\$6,730.00	\$6,400.00	Sweep Aux check for full power use during repack	N/A	N/A

UHF - High Power, Side Mount, basic slot antenna, 854 kW input, directional,, horizontally polarized	\$234, 184.34	\$234,184.34	see attached quote plus tax and additional parts	\$110,453.81	N/A
Rigging Aux Antenna	\$194,264.33	\$194,264.33	Quote attached FYI -No place to add in rigging cost section	\$194,264.33	N/A
Aux Antenna Sweep 2	\$6,400.00	\$6,400.00	Widelity cost - made repairs from aux sweep 1 tested full power for repack.	N/A	N/A
Aux Antenna Sweep 1	\$7,525.00	\$7,525.00	1 work day +2.5 days travel @ \$2,150.00 / day	\$7,525.00	N/A
Sub-total	\$1,197,643.67	\$1,208,737.22	N/A	\$576,656.81	N/A
Total for all systems	\$6,304,763.84	\$6,139,145.15	N/A	\$4,422,913.22	N/A

Actual Information		
Description	File Name	

UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	Component Description:	New frequency Main Antenna 50% down
	Amount:	payment \$119,012.50
	Component Description:	Per change order # 36184C - (1) day weather delay for tower crew installing main antenna No quote - see invoice for hourly detail - \$3,750.00
	Component Description:	Additional Parts
	Component Description.	needed for antenna install - quote attached
	Amount:	\$1,187.88
	Component Description:	2nd payment - Antenna with installation and mount
	Amount:	\$140,463.29
Additional Main Ant sweep	Information not provided.	

New Main Antenna Burnout		
	Component Description:	40% down
		payment for
		helicopter to
		remove and
		replace new mair
		ERI antenna due
		to burnout
	Amount:	\$160,235.60
		••••
	Component Description:	Down payment fo
	· · ·	helicopter to
		remove and
		replace new ERI
		antenna due to
		burnout
	Amount:	
	Amount.	\$200,294.50
	Component Description:	Final payment
		removal,
		replacement,
		cleaning, misc
		field parts, and
		sales tax
	Amount:	
	Amount:	\$73,030.43
Sweep test of existing	Information not provided.	
antenna		
Pattern scatter analysis for	Information not provided.	
side mount high/med power		
antennas (if not included in		
antenna base cost)		
Side mount brackets for	Information not provided.	
high power antennas (if not		
included in antenna base		
cost)		
Sweep test of existing	Information not provided.	

UHF - High Power, Side Mount, basic slot antenna, 854 kW input, directional,, horizontally polarized	Component Description:	Additional parts needed to install aux antenna quote
	Amount:	attached \$6,273.81
	Component Description:	New Frequency Aux antenna 50% down payment,
	Amount:	\$104,180.00
Rigging Aux Antenna		
	Component Description:	40% down on aux antenna upon delivery
	Amount:	\$72,284.40
	Component Description:	10 percent payment upon completion plus
	Amount:	sales tax for install \$31,624.43
	Component Description:	50% down payment of
	Amount:	\$180,711.00 \$90,355.50
Aux Antenna Sweep 2	Information not provided.	

Aux Antenna Sweep 1		
	Component Description: Amount:	Sweep of Aux transmission line and antenna system \$7,525.00
	Component Description:	Sweep Aux transmission line for full power operation after replacement seals, springs, rubbing shoe, etc.
	Amount:	\$7,525.00

Transmission Line

Cost Information

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	\$415,430.00	\$380,061.93		\$0.00	
Install new ERI main transmission line	\$170,000.00	\$170,000.00	N/A	\$0.00	N/A
Rigid Transmission Line - copper, 6 1/8"	\$245,430.00	\$210,061.93	N/A	\$0.00	N/A
Auxiliary Transmission Line	\$31,422.58	\$31,422.58		\$31,422.58	
New gaskets, seals, watchbands, for full power operation	\$31,422.58	\$31,422.58	Repairs from Aux RF Sweep 1 - actaul costs \$2,422.58 (parts) + \$29,000 install	\$31,422.58	N/A
Sub-total	\$446,852.58	\$411,484.51	N/A	\$31,422.58	N/A
Total for all systems	\$6,304,763.84	\$6,139,145.15	N/A	\$4,422,913.22	N/A

Actual Information	
Description	File Name

Install new ERI main transmission line	Component Description:	10 weather days per quote at
	Amount:	\$2000.00 per day \$20,000.00
	Component Description: Amount:	Project to remove old Dielectric tx line and install new ERI tx line complete \$37,500.00
	Component Description: Amount:	50% acceptance paymenet to remove old Dielectric main tx line and install new ERI tx line \$75,000.00
	Component Description: Amount:	1st 25% down payment to remove old dielectric line & install new ERI main transmission line \$37,500.00
	Component Description: Amount: Component Description:	50% acceptance paymenet to remove old Dielectric main tx line and install new ERI tx line \$75,000.00 1st 25% down payment to remove old dielectric line & install new ERI main transmissio line

Rigid Transmission Line - copper, 6 1/8"	Component Description:	Remaining balance purchase new transmission line with sales tax and freight included
	Amount:	\$113,551.25
	Component Description:	Purchase new ERI transmission line due to burnout of the old dielectric line after we switched channels
	Amount:	\$96,510.67

New gaskets, seals, watchbands, for full power	Component Description:	Required parts to
operation	Component Description:	run channel 41
		Aux line / antenn
		at full power
		during new
		channel 33 main
		antenna install
	Amount:	\$101.25
	Component Description:	Install parts to ru
		channel 41 Aux
		line / antenna at
		full power during new channel 33
		new channel 33 main antenna
		install
	Amount:	\$29,000.00
	Component Description:	Required parts to
		run channel 41
		Aux line / antenn
		at full power
		during new
		channel 33 main
	Amount:	antenna install
	Amount:	\$2,321.33
	Component Description:	Misc parts for Au
		line to run at full
		power during TV
		Repack
	Amount:	\$2,321.33
	Component Description:	Shoulder screws
		for Aux
		transmission line

Tower Equipment and Rigging Costs

Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$1,647,497.26	\$1,833,805.26		\$1,332,599.97	
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	\$1,071,007.37	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
Tall Tower (greater than 500')	\$210,500.00	\$149,892.00	Tower modification estimate attached	N/A	N/A
STRUCTURAL ANALYSIS DESIGN	\$33,264.66	\$33,264.66	Structural analysis quote 1- \$23,612 (attached) Structural analysis quote 2 - \$9,652 (attached)	N/A	N/A

Tower Helicopter Lift	\$325,432.60	\$325,432.60	See quotes	\$261,592.60	N/A
Sub-total	\$1,647,497.26	\$1,833,805.26	N/A	\$1,332,599.97	N/A
Total for all systems	\$6,304,763.84	\$6,139,145.15	N/A	\$4,422,913.22	N/A

Actual Information Description	File Name	
Serious tower reinforcement /modifications	Component Description: Amount:	Engineering survey provide as-built detail for the anchors and concrete caissons. \$1,200.00
	Component Description: Amount:	Tower modifications - billing remaining 80% of total \$550,216.00 \$440,172.80
	Component Description: Amount:	Field survey engineering for guy wire lengths. Please see attached quote for details. \$1,200.00
	Component Description: Amount:	Density testing during tower modifications. \$2,000.00

Component Description:	Industrial Hygienist services for lead base paint abatement - please see attached for detailed information. \$43,000.00
Component Description: Amount:	Lead base paint abatement - please see attached for detailed information \$182,750.00
Component Description: Amount:	Tower engineering services - please see attached for detailed information. \$23,740.00
Component Description: Amount:	Tower structural review analysis and report \$6,000.00
Component Description: Amount:	Tower reinforcement analysis & design, geotechnical survey with report, nondestructive foundation mapping \$22,016.00
Component Description: Amount:	20% down payment on 1098' tower modifications. \$110,043.20

Component Description: Amount:	Tower Foundation testing and inspections \$3,116.91
Component Description: Amount:	70% Final Payment for tower foundations. \$111,948.67
Component Description:	Revised invoice and original quote submitted for Geo technical survey foundation reinforcement design \$9,000.00
Component Description: Amount:	Structural Reanalysis and report for tower 5,000 \$5,000.00
Component Description: Amount:	30% down payment of quote in attached file \$47,978.00
Component Description: Amount:	Tower modification construction layout field survey \$1,600.00
Component Description: Amount:	Change order for foundations see attached quote for details. \$60,241.79

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	Information not provided.	
Tall Tower (greater than 500')	Information not provided.	
STRUCTURAL ANALYSIS DESIGN	Information not provided.	
Tower Helicopter Lift	Component Description:	40% down of the installation of primary antenna - see attached for
	Amount:	details. \$31,091.20
	Component Description:	10 percent payment plus sale tax
	Amount:	\$13,602.40
	Component Description:	50% down payment for riggin & Installation of \$77,728.00
	Amount:	\$38,864.00
	Component Description:	Structural Installation for helicopter service (down payment)
	Amount:	\$178,035.00

Outside Professional Services

Cost Information

			Estimated		
	Predetermined	Estimated	Cost		Actual Cost
Description	Cost Estimate	Cost	Justification	Actual Cost	Justification
Outside Professional Services	\$174,720.20	\$169,155.20		\$57,093.90	
RF Consultant Pattern, Transmitter, Antenna	\$62,905.20	\$62,905.20	Merrill Weiss RF Consultant Costs - estimated \$30,000 - uploaded quote dated 7/28 /17 + \$9,283 invoice 1216005 + \$10,500 invoice 00819007- R Cooley LLP - Prepare form 399 - \$13,122.20	\$55,330.20	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

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	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
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
Sub-total	\$174,720.20	\$169,155.20	N/A	\$57,093.90	N/A
Total for all systems	\$6,304,763.84	\$6,139,145.15	N/A	\$4,422,913.22	N/A

Actual Information Description	File Name	
RF Consultant Pattern, Transmitter, Antenna	Component Description:	Legal Repack reimbursement issues
	Amount:	\$448.80
	Component Description:	295.75 hour for TV repack transmitter & antenna analysis for new channel assignment.
	Amount:	\$21,075.00
	Component Description:	2.5 hours updating WHIO RF analysis
	Amount:	sheet \$750.00

Component Description:	October 2019 - Update RF system Analysis sheet & errors ingesting WHIO license in FCC LMS \$600.00
Component Description: Amount:	35 hours - Jan 1, 2018 through July 31, 2019 RF consulting - please see attached detail \$10,500.00
Component Description: Amount:	TV Repack RF Consulting July - November 2016 with detail \$9,283.00
Component Description: Amount:	Research TV Repack Allocation \$55.80
Component Description:	See detail - only charges for form 399 are professional services.
Amount:	\$485.60
Component Description: Amount:	See detail only charges for preparing form 399 are for professional services \$8,200.30
	¥0,200.00

	Component Description: Amount:	See detail - Legal review/ submissions/ revsions to form 399 development. \$2,445.80
	Component Description: Amount:	Legal Form 399 Preparation \$1,411.10
	Component Description: Amount:	TV Repack Quarterly Progress report process. \$74.80
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.	
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	Information not provided.	
Perform engineering study for new channel assignment and antenna development	Information not provided.	

Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	Component Description: Amount:	Research repack aux antenna license. \$55.80
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	See detail - only charges for Construction Permit \$111.60
	Component Description: Amount:	Develop Construction Permit \$1,446.70
	Component Description: Amount:	Discuss construction permit application issues \$149.60
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	

Other Expenses

Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$98,135.00	\$97,575.00		\$6,850.00	
Equipment Delivery and Handling Charges	\$5,000.00	\$5,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$5,000.00	\$5,000.00	N/A	N/A	N/A
Non-zoning permits	\$5,000.00	\$5,000.00	N/A	N/A	N/A
Local Zoning	\$55,000.00	\$55,000.00	N/A	\$1,850.00	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	\$3,750.00	N/A
MVPD Notification of Channel Change	\$1,250.00	\$1,250.00	See attached quote form RF notifications Quote # LS- 20190530- A.	\$1,250.00	N/A

Develop and air announcement of upcoming channel change	\$15,000.00	\$15,000.00	N/A	N/A	N/A
Sub-total	\$98,135.00	\$97,575.00	N/A	\$6,850.00	N/A
Total for all systems	\$6,304,763.84	\$6,139,145.15	N/A	\$4,422,913.22	N/A

Actual Information Description	File Name	
Equipment Delivery and Handling Charges	Information not provided.	
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
Non-zoning permits	Information not provided.	
Local Zoning		
	Component Description:	Permit document fee
	Amount:	\$1,850.00
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	
DTV Medical Facility		
Notification	Component Description:	Medical
	Amount:	notifications \$3,750.00
	Amount.	<i>43,730.00</i>
MVPD Notification of Channel Change		
	Component Description:	MVPD notifications
	Amount:	\$1,250.00

Develop and air	Information not provided.
announcement of upcoming	
channel change	

Cost Information	Grand Total				
		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$6,304,763.84	\$6,139,145.15	\$4,422,913.22	

Reimbursem	entestiatus	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	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.	
		 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. 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).
- 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 09/16/2020

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 IMPRISIONMENT (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).	
		 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).
- 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.

	The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.	
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.	
an au name	are, under penalty of perjury, that I am athorized representative of the above- ed applicant for the Authorization(s) fied above.	Dave Thomas Senior Director Operations 09/16/2020

Attachments

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