

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: File Number:	65130 000002	Service: DTV 8733	Call Sign:	WQCW	Channel: 15 (UHF)
FRN: 00 1	8223693	Date Submitted:	08/26 /2019		

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
GRAY TELEVISION LICENSEE, LLC	WQCW 4370 PEACHTREE ROAD, NE ATLANTA, GA 30319 United States	+1 (202) 505-2401	Robert. Folliard@gray. tv	Limited Liability Company

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer	Preparer Contac	t Name and Inform	nation		
Contact Information	Applicant	Address	Phone	Email	
Information	Samuel Hariton Widelity	Samuel Hariton 4031 University Dr Suite 100 Fairfax, VA 22030 United States	+1 (339) 222-8107	sam.hariton@widelity.com	

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.	Yes
	Briefly describe transition plan	WQCW will moving approximately a half mile to WSAZ's transmitter site and combining with WSAZ into broadband operations for both main and interim.

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

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	Visionary DT		
		Year	2005		
		Туре	Inductive Output Tube		
		IOT Power Type	Тwo		
		Power Capacity	60 kW		

Existing Transmitter Information

Primary	New Transmitter Costs	w 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	ULXTED- 100			
		Transmitter Type	Solid State			
		Solid State Cooling	Liquid Cooled			
		Solid State Power capacity	63.4 kW			
		Justification for New Transmitter	Old transmitter is not retunable			

Primary Other Transmitter Costs

Transmitter	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	Yes
		Switchgear (industrial 800 amp) Transformer (480V)	Yes
			No
		Power	N/A
		Rigid Conduit and Wiring	Yes
		Size	4 inches
		Length	1000.0 feet
		Other Electrical Service	No
		Description	N/A

HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Туре	N/A
	Size	N/A
	Other Size	N/A tons
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

Primary Transmitter

Name	Description
Move Gen Set	Move the generator set from the previous site
Pad for Heat Exchangers	Pad and ice shield for Heat Exchangers beside Existing PAD
Gen Set Pad	Pad for the generator set
Transfer Switch	Transfer Switch for the generator set
Ice Bridge Gen Set	Ice bridge for the previous site's generator set
Ice Bridge Building Interconnect	Ice bridge between the analog and the digital buildings
Transmitter remote control	Burk Transmitter Remote

Interim	New Transmitter Costs	ew Transmitter Costs			
Transmitter	Section	Question	Response		
	New Transmitter	Use	Interim		
		Description of Use	N/A		
		Change Type	Purchase		
		Manufacturer			
		Model	ULXTE-30		
		Transmitter Type	Solid State		
		Solid State Cooling	Liquid Cooled		
		Solid State Power capacity	19.2 kW		
		Justification for New Transmitter	Interim transmitter needed to continue broadcasting through transition period		

Interim	Other Transmitter Costs			
Transmitter	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	The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Туре	Cooling Only
	Size	20 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
Improvement	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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	No

Interim	Other Transmitter Cost Not Listed		
Transmitter	Name	Description	
	Ice Bridge	Ice bridge from the analog building to the tower (shared cost)	

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

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	Leased	
		Owner	Nexstar Broadcasting	
		Site	N/A	
		Is the existing antenna shared with another station or stations?	No	
		Is the existing antenna directional?	No	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	No	
	Existing Antenna Manufacturer and Type	Class	Full Power	
		Mounting	Top Mount	
		Antenna position in stack	Bottom	
		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	TUE-05-12 /60 H-B
-	Year	2000

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?	Yes		
		Ownership	Owned		
		Owner	N/A		
		Is antenna shared?	Yes		
		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	Elliptical		
		Туре	Broadband Panel		
		Number of Stations Supported	2		
		Number of Panels/Bays	64		
		Lower Limit	470.00 MHz		
		Upper Limit	698.00 MHz		
		Design power capacity in use	100.0 %		
		Other Antenna Type	N/A		
		ERP: (Effective Radiated Power)	640.0 kW		
		Manufacturer			
		Model	PEPSIL60D		

Year	2018
Justification for New Antenna	This antenna will be shared between WQCW and WSAZ

Primary Antenna Section Question Response **Combiner for Shared** Do you need a Combiner for a Shared Yes Antenna? Antenna Type New Number of channels supported 2 Frequencies of channels supported Upper and lower frequency Frequency 470.0 MHz - 698.0 MHz Do you need a combiner output splitter No /switcher for dual feed lines? **Elbow Complex** Yes Do you require the separate purchase of the Elbow Complex? Broadband Broadband or Single Channel? Feed Line Size 8 3/16 inches inches **Side Mount Brackets** Do you require the separate purchase of No side mount brackets for a high power antenna? **Pattern Scatter Analysis** No Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? Sweep Test Do you require the sweep testing of Yes transmission line and antenna?

Other Antenna Costs

PrimaryOther Antenna Cost Not ListedAntennaInformation not provided.

Interim	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Interim	
		Description of Use	N/A	
		Change Type	Purchase New	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	Yes	
		Is antenna directional?	No	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna Manufacturer and Type	Class	Full Power	
		Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	Broadband Panel	
		Number of Stations Supported	2	
		Number of Panels/Bays	2	
		Lower Limit	476.00 MHz	
		Upper Limit	530.00 MHz	
		Design power capacity in use	100.0 %	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	546.0 kW	
		Manufacturer		
		Model	SBB-24C170	
		Year	2018	

Justification for New Antenna	Interim
	antenna
	shared
	between
	WQCW and
	WSAZ to
	continue
	broadcastin
	through the
	transition
	period.

Interim Other Antenna Costs

Antenna

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Туре	New
	Number of channels supported	2
	Frequencies of channels supported	Upper and lower frequency
	Frequency	476.0 MHz - 530.0 MHz
	Do you need a combiner output splitter /switcher for dual feed lines?	No
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	В
	Feed Line Size	6 1/8 inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

InterimOther Antenna Cost Not ListedAntennaInformation not provided.

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

Primary	Existing Transmission Line				
Transmissio	n section	Question	Response		
	Existing Transmission Line Description	Type of change	Purchase New		
		Use	Primary (Main)		
		Description of Use	N/A		
		Ownership	Leased		
		Owner	Nexstar Broadcasting		
		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			
		Туре	Rigid		
		Diameter	7 3/16 inches		
		Other Diameter	N/A		
		Segment Length	Broadband		
		Other Segment Length	N/A		
		Number of parallel runs	1		
		Length	1125 feet per run		

Existing Transmission Line

Primary Transmissio	New Transmission Line				
	n Line 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?	Yes		
		Туре	Rigid		
		Diameter	8 3/16 inches		
		Other Diameter	N/A		
		Segment Length	Broadband		
		Other Segment Length	N/A		
		Number of parallel runs	1		
		Length	1022 feet per run		
		Justification for New Transmission Line	Shared with WSAZ		

Primary Other Transmission Line Expenses Not Listed

Transmission to me tion not provided.

Interim	New Transmission Line				
Transmissio	n Line Section	Question	Response		
	New Transmission Line	Use	Interim		
	Costs	Description of Use	N/A		
		Change Type	Purchase New		
		Туре	Rigid		
		Diameter	6 1/8 inches		
		Segment Length	Broadband		
		Other Segment Length			
		Number of parallel runs	1		
		Length	960 feet per run		
		Justification for New Transmission Line	Shared with WSAZ		

Other Transmission Line Expenses Not Listed Transmission

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

Existing Tower

Primary	Existing Tower				
Tower	Section	Question	Response		
	Existing Tower	Type of change	Modify Existing		
	Description	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	Yes		
		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?	No		
		ASR Number			
	Coordinates (NAD83 (Latitude (NAD83)	38° 30' 21.1" N-		
	North American Datum of 1983))	Longitude (NAD83)	082° 12' 32.3" W-		
		Overall Structure Height	1159.11 feet		
		Support Structure Height	1154.84 feet		
		Ground Elevation Above Mean Sea Level (AMSL)	971.77 feet		

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	Nexstar Broadcasting, Inc.
Date Constructed	07/07/2015

FM, AM or TV radio broadcasters. Facility ID's, Call Signs and Services of other broadcast stations with whom the tower is shared

Facility IDCall SignService23342WOWK-TVDTV

Other Types of Users

Users

Amateur Radio

Primary Tower Modification Costs

Tower

SectionQuestionResponseEngineering StudyPlease what type of engineering study is
required, if any:Study needed
for documented
towerTower ReinforcementsPlease select whether tower reinforcements
are needed:Major
Reinforcements
needed

Primary Tower Rigging Costs

Tower	Section	Question	Response
	Tower Rigging Costs	Complex Tower	N/A

Other Tower Expenses Not Listed Primary Tower

Information not provided.

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	900
		Explanation	Strategic Support.
	Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
		Prepare engineering section of Form FCC Construction Permit Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare engineering section of Form FCC License to Cover Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare request for Special Temporary Authority	Yes
		Quantity	1
		Do you have Distributed Transmission System engineering services?	N/A
		Critical Facility	N/A
		Terrain-Shielded Facility	N/A
	Attorney and Other Outside Consulting	Prepare and file Form FCC Construction Permit Application	Yes
	Services	For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare and file Form FCC License to Cover Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes

	Prepare request for Special Temporary Authority	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
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Other Professional Services Expenses Not Listed Professional Services roopstsided.

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	No
		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	Yes
	Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
		Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
		Does this relocation require Equipment Storage?	Yes
		Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
		Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses 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	Actua Justifi
Interim Transmitter ULXTE-30	\$737,724.05	\$616,347.59		\$590,742.30	
Ice Bridge	\$6,917.55	\$6,917.55	Steel Products Quote #003	N/A	N.
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$562,623.54	N/A	\$545,935.80	N.
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	\$2,000.00	\$2,000.00	N/A	N/A	N
Other HVAC Service Type: C Size:20 (Other)	\$44,806.50	\$44,806.50	20 ton split system shared cost with WSAZ. Please see Maynard C. Smith Construction Quote WQCW-HVACRev1	\$44,806.50	N.
Primary Transmitter ULXTED-100	\$2,115,187.22	\$2,107,587.22		\$1,728,174.05	

Transmitter remote control	\$2,838.00	\$2,838.00	BGS quote 509404	N/A	Ν
Ice Bridge Building Interconnect	\$12,250.00	\$12,250.00	Maynard C Smith Construction Quote #IceBridge Rev 2; Maynard C Smith Construction Invoice 19-14	\$12,250.00	١
Ice Bridge Gen Set	\$15,900.00	\$15,900.00	N/A	N/A	1
Move Gen Set	\$10,550.00	\$10,550.00	Cummins Quote 2260000000372075	N/A	٦
4" Rigid Conduit and Wiring (Cost per foot)	\$101,000.00	\$96,000.00	N/A	N/A	٦
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	\$22,506.90	1
UHF - Liquid Cooled Solid State Transmitter 63.4 kW	\$1,792,872.72	\$1,792,872.72	GatesAir quote GA- 00022572	\$1,619,160.65	1
Pad for Heat Exchangers	\$74,256.50	\$74,256.50	1/2 the cost paid by WQCW. See revised quote WQCW- SOG101rev3	\$74,256.50	1
Gen Set Pad	\$29,600.00	\$29,600.00	Justifying Quote - WQCW Generator Pad - Rev 2	\$0.00	1
Service entrance 3 phase/800 amp/208 volt	\$14,400.00	\$13,700.00	N/A	N/A	1
Transfer Switch	\$23,320.00	\$23,320.00	N/A	N/A	1

Total for all	\$6,104,108.59	\$4,761,110.39	N/A	\$2,917,841.76	N
systems					

Components

Actual Information Description	File Name	
Ice Bridge	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	Component Description: Amount:	ULXTE-30 Transmitter per Quote Q-76788 \$42,785.12
	Component Description: Amount:	ULXTE-30 Transmitter \$104,825.72
	Component Description: Amount:	Interim Transmitter \$398,324.96
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	Information not provided.	
Other HVAC Service Type: C Size:20 (Other)	Component Description: Amount:	Quote 04a: WQCW Transmitter HVAC101Rev1 \$44,806.50
Transmitter remote control	Information not provided.	

Ice Bridge Building Interconnect	Component Description: Amount:	Quote #03a WQCW Ice Bridge Rev 3 \$12,250.00
Ice Bridge Gen Set	Information not provided.	
Move Gen Set	Information not provided.	
4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	
Switchgear - industrial 800 amp	Component Description: Amount:	HOURS LABOR- JOHN M2/1/19 \$22,506.90
UHF - Liquid Cooled Solid State Transmitter 63.4 kW	Component Description: Amount:	A. Transmitter \$387,559.85
	Component Description: Amount:	ULXTE-100 Primary Transmitter \$1,231,600.80
Pad for Heat Exchangers	Component Description: Amount:	Quote #02a WQCW- SOG101Rev5 \$74,256.50
Gen Set Pad	Component Description:	Quote #5 Generator Pad - Rev 2 \$29,600.00
Service entrance 3 phase /800 amp/208 volt	Information not provided.	¥20,000.00
Transfer Switch	Information not provided.	

Antennas

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
Interim Antenna SBB- 24C170	\$226,106.32	\$169,026.32		\$79,393.18	
UHF – Broadband Panel, Side Mount Auxiliary /Interim, 546 horizontally polarized	\$75,635.63	\$75,635.63	THIS IS THE CORRECTED INTERIM ANTENNA CATEGORY, ESTIMATED COST PER DTVPROS QUOTE JEHQ 1487 - 50% split with WSAZ	\$37,817.81	N/A
Sweep test of existing antenna	\$6,730.00	\$3,200.00	WQCW's half of the cost split with WSAZ	\$2,560.00	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$50,000.00	WQCW's half of the shared combiner	\$16,324.68	N/A
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$6,500.00	WQCW's half of the cost	N/A	N/A

Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$11,000.00	WQCW's half of the shared antenna brackets	N/A	N/A
UHF – Broadband Panel, Side Mount Auxiliary /Interim, 530 horizontally polarized	\$22,690.69	\$22,690.69	***System Notice: Estimate adjusted and locked because line has been superseded. ***WCQW's half of the cost	\$22,690.69	Please do not uploac invoices here
Primary Antenna PEPSIL60D	\$877,880.00	\$371,685.09		\$223,210.85	
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	\$18,950.00	\$9,000.00	WQCW's half of the cost	N/A	N/A
			WQCW's half	\$41,271.65	N/A

\$1,103,986.32	\$540,711.41	WSAZ per DTVPros Quote JEHQ 1487 - 6,400 divided evenly between the two stations.	\$302,604.03	N/A
		WSAZ per DTVPros Quote JEHQ 1487 - 6,400 divided evenly between the		
		WSAZ per DTVPros Quote JEHQ 1487 - 6,400 divided		
		WSAZ per DTVPros Quote JEHQ 1487 - 6,400		
		WSAZ per DTVPros Quote JEHQ		
		WSAZ per DTVPros		
		WSAZ per		
		•		
\$6,730.00	\$3,200.00	Estimated cost split with	\$2,560.00	N/A
		20181106-779		
		INC proposal		
		Research,		
		Electronics		
		WSAZ per		
		antenna with		
		of the shared		
	\$768,000.00		of the shared antenna with WSAZ per DTVPros Quote JEHQ 1484, WQCW's half of the shared custom index plate with WSAZ per Electronics Research, INC proposal 20181106-779	of the shared antenna with WSAZ per DTVPros Quote JEHQ 1484, WQCW's half of the shared custom index plate with WSAZ per Electronics Research, INC proposal 20181106-779

Components

Actual Information	
Description	File Name

UHF – Broadband Panel, Side Mount Auxiliary /Interim, 546 horizontally polarized	Component Description:	UHF - BROADBAND PANEL, SIDE MOUNT AUX	
	Amount:	/INTERIM \$18,908.91	
	Component Description: Amount:	Interim Antenna \$18,908.90	
Sweep test of existing antenna	Component Description:	WQCW-280- Sweep test Interim Antenna	
	Amount:	\$800.00	
	Component Description:	WQCW-Sweep Test Interim Antenna	
	Amount:	\$800.00	
	Component Description: Amount:	Sweep Test \$960.00	
New combiner, cost per channel (without antenna)			
	Component Description:	Interim Channel Combiner	
	Amount:	\$16,324.68	
	Component Description:	Interim combiner (70% payment of Quote Q-77110 sec. 1 and 4)	
	Amount:	\$31,856.01	
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.		

high power antennas (if not		
included in antenna base		
cost)		
UHF – Broadband Panel,		
Side Mount Auxiliary	Component Description:	Interim Antenna
/Interim, 530 horizontally	Amount:	\$22,690.69
polarized	Anount.	ΨΖΖ,000.00
Elbow complex, broadband,	Information not provided.	
at antenna input, per 8 3		
/16. feedline (if needed)		
New combiner, cost per		
channel (without antenna)	Component Description:	Interim channel
		combiner
	Amount:	\$41,271.65
UHF - High Power Top		
Mount (200-1000 kW), Two	Component Description:	New Primary
Station broadband panel		Antenna
antenna, elliptically or	Amount:	\$66,517.20
circularly polarized		
	Component Description:	UHF-HIGH
		POWER TOP
		MOUNT (200-
		1000KW)
	Amount:	\$55,431.00
	Component Description:	Antenna Mount
	Amount:	\$2,000.00
	Component Description:	UHF High Powe
	Somponent Description.	
		Top Mount

Sweep test of existing antenna	Component Description: Amount:	WQCW-210- Sweep test New Primary Antenna \$800.00
	Component Description:	WQCW-210- Sweep test New Primary Antenna
	Amount:	\$800.00
	Component Description:	Sweep test Primary Antenna
	Amount:	\$960.00

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
Interim Transmission Line	\$222,720.00	\$150,921.02		\$60,368.39	
Rigid Transmission Line - copper, 6 1 /8" broadband	\$222,720.00	\$150,921.02	WQCW's half of the cost	\$60,368.39	N/A
Primary Transmission Line	\$407,778.00	\$193,669.00		\$119,869.19	
Rigid Transmission Line - copper, 8 3 /16" broadband	\$407,778.00	\$193,669.00	WQCW's half of the cost	\$119,869.19	N/A
Sub-total	\$630,498.00	\$344,590.02	N/A	\$180,237.58	N/A
Total for all systems	\$6,104,108.59	\$4,761,110.39	N/A	\$2,917,841.76	N/A

Components

Actual Information		
Description	File Name	

Rigid Transmission Line - copper, 6 1/8" broadband	Component Description: Amount:	Interim Transmission Line \$22,638.15
	Component Description:	RIGID TRANSMISSION
	Amount:	LINE - COPPER \$18,865.12
	Component Description: Amount:	Rigid Transmission Line - Copper \$18,865.12
Rigid Transmission Line - copper, 8 3/16" broadband	Component Description: Amount:	MACX875B-1 \$37,459.13
	Component Description: Amount:	New Primary Transmission Line \$44,950.93
	Component Description: Amount:	MACX8758-1 \$37,459.13

Tower Equipment and Rigging Costs

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 Tower GTOWER	\$644,100.00	\$576,945.00		\$41,056.25	
Structural engineering tower load study for well documented tower	\$12,600.00	\$12,720.00	Includes state and local taxes	N/A	N/A
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$164,225.00	Quote Q18- 06-023b shows total cost for the project. Total cost divided between WQCW and WSAZ at 50% each	\$41,056.25	N/A
Sub-total	\$644,100.00	\$576,945.00	N/A	\$41,056.25	N/A
Total for all systems	\$6,104,108.59	\$4,761,110.39	N/A	\$2,917,841.76	N/A

Components

Actual Information Description	File Name
Structural engineering tower load study for well documented tower	Information not provided.

Major tower reinforcement /modifications	Information not provided.	
Tall Tower (greater than 500')		Tourse sincing
	Component Description:	Tower rigging
		services
	Amount:	\$41,056.25

Outside Professional Services

Cost Information

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description Outside Professional Services	Predetermined Cost Estimate \$177,120.00	Estimated Cost \$167,750.00	Estimated Cost Justification	Actual Cost \$74,737.65	Actual Cost Justification
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 - Prepare and File FCC Form 2100 (main), Construction Permit Application Prepare request for Special Temporary Authorization Prepare engineering section of FCC Form 2100 (main), License to Cover Application Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$5,260.00 \$2,050.00	\$5,000.00 \$1,500.00	N/A N/A	\$196.50 \$725.00	N/A
request for Special Temporary Authorization Prepare engineering section of FCC Form 2100 (main), License to Cover Application Prepare engineering section of FCC Form 2100 (main),	\$2,050.00	\$1,500.00	N/A	\$725.00	
engineering section of FCC Form 2100 (main), License to Cover Application Prepare engineering section of FCC Form 2100 (main),					N/A
engineering section of FCC Form 2100 (main),	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,200.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$1,237.50	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	\$740.00	N/A
Project management of the transition					

Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Sub-total	\$177,120.00	\$167,750.00	N/A	\$74,737.65	N/A
Total for all systems	\$6,104,108.59	\$4,761,110.39	N/A	\$2,917,841.76	N/A

Components

Actual Information Description	File Name	
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 - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Complete and file ititial repack CP application \$196.50
Prepare request for Special Temporary Authorization	Component Description: Amount:	Develop technical parameters for interim antenna \$725.00

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	RF Consulting Fee \$1,425.00
	Component Description:	Provide FCC contour and Longley-Rice predicted coverage maps regarding pre-auction Ch-17
	Amount:	\$400.00
	Component Description:	support response to review of reimbursement form 399 provide summaries of additional antenna configurations
	Amount:	\$375.00
Perform engineering study for new channel assignment and antenna development	Component Description: Amount:	Consulting Engineer \$425.00
	Component Description:	Perform engineering study for new channel assignment
	Amount:	\$812.50
Address transition timing and coordination issues w/ other stations and wireless	Amount: Component Description:	

Project management of the transition

Component Description: Project Management Amount: \$2,755.65 **Component Description:** Project Management Amount: \$2,154.80 **Component Description:** Project Management Amount: \$4,696.90 **Component Description:** Project Management Amount: \$2,558.55 **Component Description:** Project Management \$5,551.95 Amount: **Component Description:** Project Management Amount: \$1,401.45 **Component Description:** Project Management Amount: \$2,005.70 **Component Description:** Project Management \$2,414.70 Amount: **Component Description:** Project Management

\$1,558.55

Amount:

Component Description: Amount:	Mailing: Print and mail a two page, black and white generically addressed letter \$2,877.50
Component Description: Amount:	Project Management \$1,985.40
Component Description: Amount:	Transition Related Project Management Costs \$1,500.00
Component Description: Amount:	Project Management \$1,609.00
Component Description: Amount:	Project Management \$1,477.25
Component Description: Amount:	Project Management \$1,543.30
Component Description: Amount:	Project Management \$1,829.35
Component Description: Amount:	Project Management \$1,988.85

Component Description: Amount:	Project Management \$2,221.55
Component Description: Amount:	Project Management \$1,728.10
Component Description: Amount:	Project Management \$2,874.40
Component Description: Amount:	Project Management \$2,813.35
Component Description: Amount:	Project Management \$3,057.40
Component Description: Amount:	Project Management \$2,906.30
Component Description: Amount:	Project management \$2,509.40
Component Description: Amount:	Project Management \$3,291.45
Component Description: Amount:	Cost Reconciliation \$1,965.45

	Component Description: Amount:	Project Management \$1,743.75
	Component Description: Amount:	Project Management \$28.20
	Component Description: Amount:	Project Management \$2,035.25
	Component Description: Amount:	Project management \$2,555.15
Prepare and or review reimbursement form	Information not provided.	

Other Expenses

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
Other Expenses	\$129,477.00	\$120,962.15		\$289.90	
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	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
DTV Medical Facility Notification	\$11,550.00	\$3,050.15	N/A	N/A	N/A
Equipment Storage	\$10,600.00	\$10,600.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	\$15,900.00	\$15,900.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$67,237.00	\$67,237.00	Maynard C. Smith Construction Co. quote for WQCW Demo Safety Klean Disposal Quote for WQCW	N/A	N/A
Non-zoning permits	\$11,660.00	\$11,660.00	N/A	N/A	N/A

MVPD Notification of Channel Change	\$2,000.00	\$2,000.00	Per Estimated Cost Justification WQCW-610- MVPD Notifications v0	N/A	N/A
Develop and air announcement of upcoming channel change	\$10,000.00	\$10,000.00	N/A	\$289.90	N/A
Sub-total	\$129,477.00	\$120,962.15	N/A	\$289.90	N/A
Total for all systems	\$6,104,108.59	\$4,761,110.39	N/A	\$2,917,841.76	N/A

Components

Actual Information

Description	File Name
FCC Filing Fees - Special Temporary Authorization request	Information not provided.
FCC Filing Fees - Form 2100 license to cover application	Information not provided.
DTV Medical Facility Notification	Information not provided.
Equipment Storage	Information not provided.
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.
MVPD Notification of Channel Change	Information not provided.

announcement of upcoming channel change Component Description: Total Professional Services Amount: \$289.90

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$6,104,108.59	\$4,761,110.39	\$2,917,841.76

Reimbursem	entestiatus	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	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. 	
		2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	
		3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

- 4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
- 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.	Robert Folliard , III Assistant Secretary 08/26/2019

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 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).
- 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.

8.	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 thorized representative of the above- d applicant for the Authorization(s) ied above.	Robert Folliard , III Assistant Secretary 08/26/2019

Attachments

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