

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility	12793	Service: DTV	Call	WAXN-TV	Channel: 32 (UHF)
ID: File	000002	7845	Sign:		
Number:					
FRN: 00	01842491	Date	06/21		
		Submitted:	/2018		

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
WSOC TELEVISION, LLC Doing Business As: WSOC TELEVISION, LLC.	Ted Hand PO BOX 34665 CHARLOTTE, NC 28234 United States	+1 (704) 335-4700	ted. hand@wsoc- tv.com	Limited Liability Company

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
	Ted Hand Director of Engineering Operations WSOC Television, LLC	Ted Hand 1901 North Tryon Street Charlotte, NC 28206 United States	+1 (704) 335- 4732	ted.hand@coxinc. 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	WAXN will install the auxiliary transmitter first. It will transmit on that system while the main transmitter is installed. There are separate antennas for main and auxiliary.

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	backup to main		
		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	DCD20PL3 Diamond CD		
		Year	1999		
		Туре	Solid State		
		Solid State Cooling	Air Cooled		
		Solid State Power Capacity	6 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?	No		
		Manufacturer			
		Model	ULXTE-10		
		Transmitter Type	Solid State		
		Solid State Cooling	Liquid Cooled		
		Solid State Power capacity	6 kW		
		Justification for New Transmitter	Current auxiliary transmitter is tuned to channel 50 and can not be tuned below channel 36		

Auxiliary 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	Yes
		Size	2 inches
		Length	250.0 feet

	Other Electrical Service	Yes
	Description	Wiring for water pumps and mask filter blowers
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

Auxiliary Other Transmitter Cost Not Listed

ter	Name	Description	
	RF Hanging Supplies	Equipment used to hang RF filters and waveguide in main room	
	Plumbing Supplies	Plumbing pipe and adapters for liquid cooled transmitter	
	Combiner	Combiner used to combine WAXN Aux and WSOC Aux in to one T/L. Cost is shared with WSOC-TV	
	Coaxial Switch	Coaxial switch for Main to Aux switching	

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 and Type	Manufacturer			
		Model	DHD15P1 Diamond CD		
		Year	1999		
		Туре	Solid State		
		Solid State Cooling	Air Cooled		
		Solid State Power Capacity	8 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?	No	
		Manufacturer		
		Model	ULXTE-12	
		Transmitter Type	Solid State	
		Solid State Cooling	Liquid Cooled	
		Solid State Power capacity	8 kW	
		Justification for New Transmitter	Current transmitter is tuned to channel 50 and can not be tuned below channel 36.	

Primary	Other Transmitter Costs			
Transmitter	Section	Question	Response	
	Electrical Service	Service Entrance (3 phases 800A 208V)	No	
		Switchgear (industrial 800 amp)	No	
		Transformer (480V)	Yes	
		Power	300 kVA	
		Rigid Conduit and Wiring	Yes	
		Size	2 inches	
		Length	250.0 feet	

	Other Electrical Service	Yes
	Description	Wiring for water pumps and mask filter blowers.
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	320.0 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 Transmitter	Other Transmitter Cost Not Listed		
	Name	Description	
	RF Equipment	Elbows, hangers, hardware kits, flanges	
	Distilled Water	Distilled water for cooling transmitter	

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

Primary Antenna	Existing Antenna Information			
	Section	Question	Response	
	Existing Antenna Description	Type of change	Purchase New	
		Antenna Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is the existing antenna shared with another station or stations?	No	
		Is the existing antenna directional?	Yes	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	No	
	Existing Antenna Manufacturer and Type	Class	Full Power	
		Mounting	Top Mount	
		Antenna position in stack	Тор	
		Polarization	Elliptical	
		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)	150.0 kW	

Manufacturer	
Model	TFU- 25ETT-V/R 4C160
Year	2009

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?	Yes		
		Will antenna be located on or in close proximity to an antenna farm?	No		
	New Antenna Manufacturer and Types	Class	Full Power		
		Mounting	Top Mount		
		Antenna position in stack	Тор		
		Polarization	Elliptical		
		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)	150.0 kW		
		Manufacturer			
			1		

Model	TFU- 25ETT-V/R 4C160
Year	2009
Justification for New Antenna	Current antenna is a single channel slot tuned to channel 50. It can not be retuned.

Primary 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?	Yes
		Broadband or Single Channel?	Single Channel
		Feed Line Size	6 1/8 inches inches
	Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	No
			1

Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Primary
AntennaOther Antenna Cost Not ListedInformation not provided.

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

Auxiliary	Existing Transmission Line			
Transmissio	n Line Section	Question	Response	
	Existing Transmission Line Description	Type of change	Purchase New	
		Use	Auxiliary (Backup)	
		Description of Use	backup to main	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is the existing transmission line shared with another station or stations?	Yes	
		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	585 feet per run	

Facility ID's and Call Signs of all stations with whom the transmission line is shared.

Existing Transmission Line

Facility ID	Call Sign
74070	WSOC-TV

Auxiliary Transmissio	New Transmission Line n Line	Question	Response
	New Transmission Line Costs	Use	Auxiliary (Backup)
		Description of Use	backup to main
		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	20 inches
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	585 feet per run
		Justification for New Transmission Line	Current line is 19 1/2' sections. New assigned channel wil not pass in it.

Other Transmission Line Expenses Not Listed Auxiliary Other Transmission

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	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	Manufacturer		
	Line Manufacturer and Type	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	1070 feet per run	

Primary	New Transmission Line			
Transmissio	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?	No	
		Туре	Rigid	
		Diameter	6 1/8 inches	
		Other Diameter	N/A	
		Segment Length	20 inches	
		Other Segment Length	N/A	
		Number of parallel runs	1	
		Length	1070 feet per run	
		Justification for New Transmission Line	Current transmission line is 19 1 /2' and will not pass the new assigned channel.	

Primary Other Transmission Line Expenses Not Listed

Transmission to me tion not provided.

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	Existing Tower

Primary Tower	Section	Question	Response
	Existing Tower Description	Type of change	Move Equipment
		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?	Yes
	Existing Tower Structure Registration	Do you have a tower registration number?	Yes
		ASR Number	1004745
	Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	35° 15' 42.0" N-
		Longitude (NAD83)	080° 43' 37.0" W-
		Overall Structure Height	1082.01 feet
		Support Structure Height	970.13 feet
		Ground Elevation Above Mean Sea Level (AMSL)	855.96 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	IWG Towers Assets II, LLC
Date Constructed	01/31/2000

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
74070	WSOC-TV	DTV

Primary Tower Rigging Costs

Tower

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

Primary Other Tower Expenses Not Listed

Tower Information not provided.

Outside Professional	Section	Question	Response
	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	25
		Explanation	Project manager hired to coordinate crews and materials.
	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	Yes
	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	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside 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	No
		BLM or NFS Coordination	No
		FCC Construction Permit Minor Change	Yes
		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?	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	Actual Cost Justification
Primary Transmitter ULXTE-12	\$522,559.41	\$478,709.41		\$150,046.58	
Other Building Addition Size: 320.0	\$20,600.00	\$20,600.00	N/A	\$13,507.20	N/A
15 Ton system	\$55,800.00	\$14,000.00	Cost to move current unit. Shared cost with WSOC-TV 74070	\$13,288.00	N/A
Other Electrical Service: Wiring for water pumps and mask filter blowers.	\$31,800.00	\$31,800.00	N/A	N/A	N/A
2" Rigid Conduit and Wiring (Cost per foot)	\$6,500.00	\$6,250.00	N/A	N/A	N/A
Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$35,000.00	N/A	N/A	N/A

Liquid Cooled Solid State Transmitter a kWS1,300.00N/AN/AN/ADistilled Water\$1,300.00\$1,300.00N/AN/AN/ARF Equipment Equipment Transmitter ULXTE-10\$10,000.00RF equipment needed to move WAXN aux transmitter to make room for new transmitter\$15,100.00RF equipment s315,100.00\$1,000.00Coaxial Switch\$4,700.00\$4,700.00N/AN/AN/ACoaxial Switch\$4,700.00\$4,700.00N/AN/AN/ACombiner\$7,300.00\$1,300.00N/AN/AN/APlumbing Supplies\$3,500.00\$3,500.00N/AN/AN/AUHF - Liquid Cooled Solid State Transmitter\$273,500.00\$236,463.14N/A\$78,821.05N/A						
Water S10,000.00 RF equipment meded to move WAXN aux transmitter to make room for new transmitter \$3,331.58 N/A Auxiliary Transmitter ULXTE-10 \$315,100.00 \$277,813.14 \$78,821.05 Coaxial Switch \$4,700.00 N/A N/A N/A Switch \$73,300.00 \$7,300.00 This is half the cost. Shared with WSOC-TV N/A N/A Plumbing Supplies \$3,500.00 \$3,500.00 N/A N/A N/A UHF - Liquid Coold Solid State Solid State Solid State Solid State Transmitter \$273,500.00 \$236,463.14 N/A N/A N/A 2" Rigid Conduit and Witin g(cost per \$6,500.00 \$6,250.00 N/A N/A N/A	Liquid Cooled Solid State Transmitter	\$359,759.41	\$359,759.41	N/A	\$119,919.80	N/A
Equipment needed to move WAXN aux transmitter to make room for new transmitter\$78,821.05Auxillary Transmitter ULXTE-10\$4,700.00\$4,700.00N/AN/AN/ACoaxial Switch\$4,700.00\$1,000,00N/AN/AN/ACombiner Switch\$7,300.00\$7,300.00This is half the cost. Shared with WSOC-TVN/AN/APlumbing Supplies\$3,500.00\$3,500.00N/AN/AN/AUHF - Liquid Coold distate solid State solid State ransmitter\$273,500.00\$236,463.14N/AN/A2" Rigid (Cost per\$6,500.00\$6,250.00N/AN/AN/A		\$1,300.00	\$1,300.00	N/A	N/A	N/A
Transmitter ULXTE-10 S4,700.00 S4,700.00 N/A N/A N/A Coaxial Switch \$4,700.00 \$4,700.00 N/A N/A N/A Combiner \$7,300.00 \$7,300.00 This is half N/A N/A Combiner \$7,300.00 \$7,300.00 This is half N/A N/A Plumbing \$3,500.00 \$3,500.00 N/A N/A N/A Plumbing \$3,500.00 \$3,500.00 N/A N/A N/A RF Hanging \$8,000.00 \$8,000.00 N/A N/A N/A UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW \$6,500.00 \$6,250.00 N/A N/A N/A 2" Rigid Wring (Cost per \$6,500.00 \$6,250.00 N/A N/A N/A		\$10,000.00	\$10,000.00	equipment needed to move WAXN aux transmitter to make room for new	\$3,331.58	N/A
SwitchImage: constraint of the constraint	Transmitter	\$315,100.00	\$277,813.14		\$78,821.05	
Humbing Supplies\$3,500.00\$3,500.00N/AN/AN/ARF Hanging Supplies\$8,000.00\$8,000.00N/AN/AN/AUHF - Liquid Cooled Solid State Transmitter 4.9.6.5 kW\$6,500.00\$6,250.00N/AN/AN/A		\$4,700.00	\$4,700.00	N/A	N/A	N/A
Supplies Supplies Supplies Standard State N/A N/	Combiner	\$7,300.00	\$7,300.00	the cost. Shared with	N/A	N/A
Supplies VHF - \$273,500.00 \$236,463.14 N/A \$78,821.05 N/A Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW 2" Rigid \$6,500.00 \$6,250.00 N/A N/A N/A 2" Rigid \$6,500.00 \$6,250.00 N/A N/A N/A Viring (Cost per Solid State	-	\$3,500.00	\$3,500.00	N/A	N/A	N/A
Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW 2" Rigid \$6,500.00 \$6,250.00 N/A N/A N/A Conduit and Wiring (Cost per		\$8,000.00	\$8,000.00	N/A	N/A	N/A
Conduit and Wiring (Cost per	Liquid Cooled Solid State Transmitter	\$273,500.00	\$236,463.14	N/A	\$78,821.05	N/A
	Conduit and Wiring (Cost per	\$6,500.00	\$6,250.00	N/A	N/A	N/A

Other Electrical Service: Wiring for water pumps and mask filter blowers	\$11,600.00	\$11,600.00	N/A	N/A	N/A
Sub-total	\$837,659.41	\$756,522.55	N/A	\$228,867.63	N/A
Total for all systems	\$1,853,039.41	\$1,681,487.55	N/A	\$413,844.89	N/A

Components

Actual Information Description	File Name	
Other Building Addition Size: 320.0	Component Description: Amount:	Building Addition Shared cost with WSOC-TV 74070 \$13,507.20
15 Ton system		
	Component Description:	Cost to move condenser includes new concrete pad and ice bridge. Shared cost with WSOC- TV 74070 \$13,288.00
Other Electrical Service: Wiring for water pumps and mask filter blowers.	Information not provided.	
2" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	
Transformer 3 phase/480v - 300 KVA	Information not provided.	

UHF - Liquid Cooled Solid State Transmitter 8 kW	Component Description:	1/3 Down
		payment for
		WAXN MAIN transmitter
	Amount:	\$119,919.80
	Component Description:	Re-submit with
		PO & Invoice
	Amount:	together \$119,919.80
	Amount.	φ119,919.00
Distilled Water	Information not provided.	
RF Equipment		
	Component Description:	RF elbows,
		insulators,
	Amount:	reducers \$3,331.58
	Amount.	φ3,331.30
Coaxial Switch	Information not provided.	
Combiner	Information not provided.	
Plumbing Supplies	Information not provided.	
RF Hanging Supplies	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5		
kW	Component Description:	Re-submit with
		PO & Invoice
	Amount:	together \$78,821.05
	Amount.	φr0,021.00
	Component Description:	1/3 down
		payment on
	Amount	Transmitter
	Amount:	\$78,821.05
2" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	

Other Electrical Service:	Information not provided.
Wiring for water pumps and	
mask filter blowers	

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
Primary Antenna TFU- 25ETT-V/R 4C160	\$308,530.00	\$293,100.00		\$96,869.25	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	\$2,963.25	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$275,000.00	N/A	\$93,906.00	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Sub-total	\$308,530.00	\$293,100.00	N/A	\$96,869.25	N/A
Total for all systems	\$1,853,039.41	\$1,681,487.55	N/A	\$413,844.89	N/A

Components

Actual Information Description	File Name	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Component Description: Amount:	Elbow complex (Item 4) (45% down) \$2,963.25
	Component Description: Amount:	N/A N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	Component Description:	Antenna, wedding cake, feed-thru (Item
	Amount:	1,2,3) (45% down) \$93,906.00
Sweep test of existing antenna	Information not provided.	

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	\$216,140.00	\$157,000.00		\$70,279.61	
Rigid Transmission Line - copper, 6 1/8"	\$216,140.00	\$157,000.00	N/A	\$70,279.61	N/A
Auxiliary Transmission Line	\$118,170.00	\$112,320.00		\$0.00	
Rigid Transmission Line - copper, 6 1/8"	\$118,170.00	\$112,320.00	This is half the cost. The other half in on WSOC- TV's Form 399.	N/A	N/A
Sub-total	\$334,310.00	\$269,320.00	N/A	\$70,279.61	N/A
Total for all systems	\$1,853,039.41	\$1,681,487.55	N/A	\$413,844.89	N/A

Components

Actual Information Description	File Name	
Rigid Transmission Line - copper, 6 1/8"	Component Description: Amount:	Transmission Line, hangers, field service (45% down) \$70,279.61
Rigid Transmission Line - copper, 6 1/8"	Information not provided.	

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 TOWER	\$210,500.00	\$200,000.00		\$0.00	
Tall Tower (greater than 500')	\$210,500.00	\$200,000.00	This is half the cost. The other half is on WSOC- TV's Form 399.	N/A	N/A
Sub-total	\$210,500.00	\$200,000.00	N/A	\$0.00	N/A
Total for all systems	\$1,853,039.41	\$1,681,487.55	N/A	\$413,844.89	N/A

Components

Information not provided.

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	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$139,445.00	\$140,550.00		\$17,828.40	
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/A
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	\$0.00	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,000.00	N/A	\$2,549.70	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$4,755.70	N/A
Project management of the transition	\$3,950.00	\$3,750.00	N/A	N/A	N/A

Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$15,050.00	Actual Engineering Cost. See attached.	\$10,523.00	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
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//
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, License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A

Sub-total	\$139,445.00	\$140,550.00	N/A	\$17,828.40	N/A
Total for all systems	\$1,853,039.41	\$1,681,487.55	N/A	\$413,844.89	N/A

Components

Actual Information Description	File Name	
RF Exposure Measurements	Information not provided.	
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	Component Description:	Full payment of invoice for legal services for WAXN-TV repack.
	Amount:	\$2,549.70

Project management of the transition Prepare and or review	Information not provided.	
	Amount:	WAXN-TV repack. \$1,047.20
	Component Description:	Full payment for invoice fro legal services for
	Component Description: Amount:	Full payment of invoice fro legal services for WAXN-TV repack. \$1,933.50
	Amount:	services for WAXN-TV repack. \$74.80
	Component Description:	Full payment of invoice for legal
	Amount:	services for WAXN-TV repack \$1,392.10
	Component Description:	Full payment of invoice for legal
Application	Amount:	services for WAXN-TV repack. \$308.10
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit	Component Description:	Full payment of invoice for legal

Perform engineering study for new channel assignment and antenna development	Component Description:	Requesting 50% for WAXNI filed for the other 50% under WSOC
	Amount:	\$10,523.00
Prepare engineering section of FCC Form 2100 (main), Construction Permit 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), License to Cover Application	Information not provided.	
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	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	\$22,595.00	\$21,995.00		\$0.00	
MVPD Notification of Channel Change	\$2,000.00	\$2,000.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	\$1,500.00	\$1,500.00	N/A	N/A	N/A
Equipment Storage	\$2,600.00	\$2,600.00	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 minor change CP application	\$1,110.00	\$1,070.00	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
Disposal Costs (for equipment and other waste, net of any salvage value)	\$3,500.00	\$3,500.00	N/A	N/A	N/A

Equipment Delivery and Handling Charges	\$0.00	\$0.00	N/A	\$0.00	N/A
Sub-total	\$22,595.00	\$21,995.00	N/A	\$0.00	N/A
Total for all systems	\$1,853,039.41	\$1,681,487.55	N/A	\$413,844.89	N/A

Components

Information not provided.

Cost Information	Grand Total				
		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$1,853,039.41	\$1,681,487.55	\$413,844.89	

Reimbursem	enrestanus	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.	Ted Hand Director of Engineering /Operations 06/21/2018

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) fied above.	Ted Hand Director of Engineering /Operations 06/21/2018

Attachments