

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility	72123	Service: DTV	Call	WWJ-TV	Channel: 21 (UHF)
ID:			Sign:		
File	000002	6787			
Number:					
FRN: 000	03482189	Date	03/25		
		Submitted:	/2020		

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
CBS BROADCASTING INC. Doing Business As: CBS BROADCASTING INC.	Daniel G. Ryson 1725 DeSales St. NW Suite 501 Washington, DC 20036 United States	+1 (202) 457-4074	dryson@cbs. com	Corporation

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Ontact Name and Information

Contact Information	Applicant	Address	Phone	Email
	Daniel G. Ryson Director of Spectrum Management CBS	Daniel G. Ryson 1725 DeSales Street NW Suite 501 Washington, DC 20036 United States	+1 (202) 457- 4075	dryson@cbs. 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	New channel 21 antenna and 6-1/8" line to be installed on the south arm of candelabra. Tower owner providing interim broad band antenna system to be leased.

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	SigmaCD- 2200P2		
		Year	1999		
		Туре	Inductive Output Tube		
		IOT Power Type	Two		
		Power Capacity	46 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	ULXTED-60		
		Transmitter Type	Solid State		
		Solid State Cooling	Liquid Cooled		
		Solid State Power capacity	38.4 kW		
		Justification for New Transmitter	GatesAir Won't Re- tune (See Exhibit 1). IOT replacement is more expensive (See Exhibit 2A). Proposed replacement is less expensive (Exhibit 3B). See also May 2018 Statement.		

Primary	Other Transmitter Costs		
Transmitter		~	

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	Various Main Site Electrical Work (See Exhibit 4).
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

Primary Other Transmitter Cost Not Listed Transmitter

nitter	Name	Description
	State Sales Tax	Michigan Sales Tax of 6% on all products and services shown on Exhibit 3B.
	GatesAir Site Survey	Advanced Site Survey Services. Includes as-built and future layout drawings. See Exhibit 3B Item F.

Antennas Section	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	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	Тор		
		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)	425.0 kW		

	Manufacturer	
	Model	TFU-18GTH
	Year	1998

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?	No
		Is antenna directional?	No
		Will antenna be located on or in close proximity to an antenna farm?	No
	New Antenna	Class	Full Power
	Manufacturer and Types	Mounting	Top Mount
		Antenna position in stack	Not in Stack
		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)	264.0 kW
		Manufacturer	
			1

Model	TFU-17E /VP-R O	
Year	2019	
Justification for N	ew Antenna Existing antenna cannot b retuned.	be

Primary	Other Antenna Costs				
Antenna	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 Costs

Primary Other Antenna Cost Not Listed

Antenna Information 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	Leased		
		Owner	American Tower Corporation		
		Is antenna shared?	Yes		
		Is antenna directional? Will antenna be located on or in close proximity to an antenna farm? Class Mounting	Yes		
			No		
	New Antenna	Class	Full Power		
	Manufacturer and Type	MountingSide MAntenna position in stackNot in aPolarizationElliptica	Side Mount		
			Not in Stack		
			Elliptical		
			Broadband Slot		
		Number of Stations Supported	3		
		Number of Panels/Bays	8		
		Lower Limit	407.00 MHz		
		Upper Limit	698.00 MHz		
		Design power capacity in use	0.0 %		
		Other Antenna Type	N/A		
		ERP: (Effective Radiated Power)	264.0 kW		
		Manufacturer			
		Model	TFU-24 WB /VP-C160		

Year	2018
Justification for New Antenna	Required for continued operation while mai WWJ-TV antenna is replaced.

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	3
		Frequencies of channels supported	RF channel
		Frequency	N/A
Elbow Complex		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	7 3/16 inches
	Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	No
	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

Enter a list of RF channel numbers.

RF Channel Number

44			
21			
43			

Other Antenna Cost Not Listed

Interim Antenna

NameDescriptionIce ShieldIce Shield for side-mount interim antenna. Omitted from initial quote. Please see Exhibit 14.Interim Antenna RiggingCost is for the labor to remove the old side- mount analog channel 62 antenna and waveguide, install the new transmission line, and install interim antenna.Combiner Cage24X20 fenced combiner cage area materials and installation. See Exhibit 7AInterim Tower RentalATC site and tower rental Required for station to minimize on-air disruption, maintain coverage, and complete the tower work in a safe, timely manner. See Exhibit 7A.New Electrical PanelNew HVAC electrical sub-panel for new AC unit required for the repack combiner area fed off existing 480/208 main panel. This equipment is required to provide the existing power to the HVAC unit.Nitrogen GeneratorNitrogen Generator Upgrade. See Exhibit 7A.Install CombinerCost is for installing and proofing combiner.		
Omitted from initial quote. Please see Exhibit 14.Interim Antenna RiggingCost is for the labor to remove the old side- mount analog channel 62 antenna and waveguide, install the new transmission line, and install interim antenna.Combiner Cage24X20 fenced combiner cage area materials and installation. See Exhibit 7AInterim Tower RentalATC site and tower rental Required for station to minimize on-air disruption, maintain coverage, and complete the tower work in a safe, timely manner. See Exhibit 7A.New Electrical PanelNew HVAC electrical sub-panel for new AC unit required for the repack combiner area fed off of existing 480/208 main panel. This equipment is required to provide the existing power to the HVAC unit.Nitrogen GeneratorNitrogen Generator Upgrade. See Exhibit 7A.ConduitThis cost includes 200 L/F of 2" conduit and conductor to adequately supply the HVAC unit.	Name	Description
mount analog channel 62 antenna and waveguide, install the new transmission line, and install interim antenna.Combiner Cage24X20 fenced combiner cage area materials and installation. See Exhibit 7AInterim Tower RentalATC site and tower rental Required for station to minimize on-air disruption, maintain coverage, and complete the tower work in a safe, timely manner. See Exhibit 7A.New Electrical PanelNew HVAC electrical sub-panel for new AC unit required for the repack combiner area fed off of existing 480/208 main panel. This equipment is required to provide the existing power to the HVAC unit.Nitrogen GeneratorNitrogen Generator Upgrade. See Exhibit 7A.ConduitThis cost includes 200 L/F of 2" conduit and conductor to adequately supply the HVAC unit.	Ice Shield	Omitted from initial quote. Please see
materials and installation. See Exhibit 7AInterim Tower RentalATC site and tower rental Required for station to minimize on-air disruption, maintain coverage, and complete the tower work in a safe, timely manner. See Exhibit 7A.New Electrical PanelNew HVAC electrical sub-panel for new AC unit required for the repack combiner area fed off of existing 480/208 main panel. This equipment is required to provide the existing power to the HVAC unit.Nitrogen GeneratorNitrogen Generator Upgrade. See Exhibit 7A.ConduitThis cost includes 200 L/F of 2" conduit and conductor to adequately supply the HVAC unit.	Interim Antenna Rigging	mount analog channel 62 antenna and waveguide, install the new transmission
station to minimize on-air disruption, maintain coverage, and complete the tower work in a safe, timely manner. See Exhibit 7A.New Electrical PanelNew HVAC electrical sub-panel for new AC unit required for the repack combiner area fed off of existing 480/208 main panel. This equipment is required to provide the existing power to the HVAC unit.Nitrogen GeneratorNitrogen Generator Upgrade. See Exhibit 7A.ConduitThis cost includes 200 L/F of 2" conduit and conductor to adequately supply the HVAC unit.	Combiner Cage	C C
Non Trivie Groundar data particulation particulationunit required for the repack combiner area fed off of existing 480/208 main panel. This equipment is required to provide the existing power to the HVAC unit.Nitrogen GeneratorNitrogen Generator Upgrade. See Exhibit 7A.ConduitThis cost includes 200 L/F of 2" conduit and conductor to adequately supply the HVAC unit.	Interim Tower Rental	station to minimize on-air disruption, maintain coverage, and complete the tower work in a safe, timely manner. See Exhibit
7A. Conduit This cost includes 200 L/F of 2" conduit and conductor to adequately supply the HVAC unit.	New Electrical Panel	unit required for the repack combiner area fed off of existing 480/208 main panel. This equipment is required to provide the
conductor to adequately supply the HVAC unit.	Nitrogen Generator	
Install Combiner Cost is for installing and proofing combiner.	Conduit	conductor to adequately supply the HVAC
	Install Combiner	Cost is for installing and proofing combiner.

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

ransmissio	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 Line Manufacturer and Type	Manufacturer	
		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	1150 feet per run

Primary Existing Transmission Line

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	Broadband	
		Other Segment Length	N/A	
		Number of parallel runs	1	
		Length	1150 feet per run	
		Justification for New Transmission Line	Existing line segment length cannot be used on new channel.	

Other Transmission Line Expenses Not Listed

Primary Other Tra Transmission

SIO	n Nattle	Description
	Additional Elbow	Additional Elbow
	RF Accessories	Coaxial Switch, Switch Controller, Dummy Load, etc. See Exhibit 9, Item C.
	TX Line Mounting Hardware	Transmission Line Tower Mounting Hardware for Primary Line.

Horiz and Ceiling Anchors	Horizontal and Ceiling Mounting Hardware	
	for Primary Line.	

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	7 3/16 inches	
		Segment Length	Broadband	
		Other Segment Length		
		Number of parallel runs	1	
		Length	995 feet per run	
		Justification for New Transmission Line	Material costs for 995 foot 7- 3/16" Broadband transmission line, three (3) elbows and a nitrogen generator for pressurization control on the line.	

Interim	Other Transmission Line Expenses Not Listed		
Transmissio	onLine	Description	
	Interim Coax Switch	Coaxial switch between interim transmitter and interim antenna combiner. Permits transmitter testing. (See Exhibit 3B, Items D and G.)	
	TX Line to Interim Combiner	Horizontal run of transmission line between transmitter and interim combiner. (See Exhibit 7A, last Page. Please disregard identical Items shown on Exhibit 3A, Items I and K.)	

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?	Candelabra		
		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?	Unknown		
		Is tower compliant with Rev G?	Unknown		
	Existing Tower	Do you have a tower registration number?	Yes		
	Structure Registration	ASR Number	1003429		
	Coordinates (NAD83 (Latitude (NAD83)	42° 26' 52.5" N-		
	North American Datum of 1983))	Longitude (NAD83)	083° 10' 23.1" W-		
		Overall Structure Height	1086.93 feet		
		Support Structure Height	1012.13 feet		
		Ground Elevation Above Mean Sea Level (AMSL)	662.07 feet		

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	American Tower, LLC
Date Constructed	06/11/1999

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
16817	WTVS	DTV
59952	WLLZ	FM
59592	WJLB	FM
74211	WMYD	DTV
6594	WNIC	FM
6056	WRCJ-FM	FM
6592	WKQI	FM

Primary Tower Modification Costs

Tower

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

Primary Tower Rigging Costs

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

Primary Tower Mame

Name	Description
Tower Project Management	Project management fee for both the primary and interim antenna. See Exhibits 6B, 1-A-1 (\$9,480) and 7B, 3-D-1 (\$5,000). Scheduling and management of the timelines and schedules occurring during the repack.
Structural Engineering	Rigorous Structural analysis to access the structural capacity and modifications needed to accommodate the repacked equipment (see Exhibit 6).
Permit Drawing Packages	Construction drawing packages for Tower and Ground Permits.

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	250
		Explanation	Company lacks internal resources.
	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	Prepare and file Form FCC Construction Permit Application	No
	Services	For Auxiliary Facility	N/A
		For Main Facility	N/A
		Prepare and file Form FCC License to Cover Application	No
		For Auxiliary Facility	N/A

	For Main Facility	N/A
	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	No
	Negotiation of Lease and other Matter for Shared Locations	Yes
	Prepare or Review FCC Form 399 for Reimbursement	No
	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	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside Professional	Other Professional Services Expenses Not Listed			
	Services Costs	Description		
	Site Coordination Meeting	Meeting to coordinate efforts among broadcasters, tower owner, and tower contractor.		
	RF System Test - Interim	Radiofrequency System Test of Interim Antenna System		

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	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?	No
		Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	No
		Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses Not Listed

Other Expenses	Other Expenses Not Listed				
	Name	Description			
	Deinstall Old Transmitter	Deinstallation of present primary transmitter. (See Exhibit 3A Item G.)			

Transmitters

Cost Information

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

Description Primary Transmitter ULXTED-60	Predetermined Cost Estimate \$1,623,643.80	Estimated Cost \$1,522,592.66	Estimated Cost Justification	Actual Cost \$1,427,329.73	Actual Cost Justification
GatesAir Site Survey	\$9,685.80	\$9,685.80	GatesAir Advanced Site Survey. Provides as-built and proposed facility layout drawings. (See Exhibit 3B, Item F.)	\$9,685.80	N/A
State Sales Tax	\$87,239.00	\$87,239.00	6% Michigan State Sales Tax on products and services shown on Exhibit 3B.	\$79,430.87	N/A
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,371,948.86	Please see May 2018 Statement and Exhibit 3B, Items A, B, C, and H.	\$1,284,494.06	N/A

Other Electrical Service: Various Main Site Electrical Work (See Exhibit 4).	\$53,719.00	\$53,719.00	Various primary transmitter site electrical work. (See Exhibit 4)	\$53,719.00	N/A
Sub-total	\$1,623,643.80	\$1,522,592.66	N/A	\$1,427,329.73	N/A
Total for all systems	\$3,830,098.07	\$3,019,727.86	N/A	\$2,690,286.32	N/A

Components

Actual Information Description	File Name	
GatesAir Site Survey		
	Component Description:	One-third progress payment of Site Survey. See Exhibit 3B Item F.
	Amount:	\$3,228.60
	Component Description:	Final Payment for Site Survey. Please see Exhibit 3B Item F.
	Amount:	\$6,457.20
State Sales Tax		
	Component Description:	Michigan Sales Tax for items shipped by October, 2019. Please see Exhibit 17.
	Amount:	\$79,430.87

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW		
	Component Description:	1/3 Down
		payment for ULXTE-60 Main
		Transmitter.
	Amount:	\$424,059.72
	Amount.	ψτΖτ,000.1Ζ
	Component Description:	One-third
		progress payment
		of items A, B, C,
		and H from
		GatesAir quote Q-
		76546 (please
	Amount:	see Exhibit 3B). \$457,316.29
	Amount.	φ437,310.29
	Component Description:	Final Payment for
		Exhibit 3B Items
		A, B, C.
	Amount:	\$403,118.05
Other Electrical Service:		
Various Main Site Electrical Work (See Exhibit 4).	Component Description:	Main Transmitter
WOR (See Exhibit 4).		Electrical Work
		Down Payment.
		Please see
		Exhibit 4.
	Amount:	\$17,727.27
	Component Description:	Main Transmitter
		Electrical Work
		Final Payment.
		Please see
		Exhibit 4.
	Amount:	\$35,991.73

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 TFU-24 WB /VP-C160	\$329,146.80	\$311,914.46		\$310,892.13	
Install Combiner	\$15,962.33	\$15,962.33	Combiner installation came in higher than estimated. Please see Exhibit 14.	\$15,962.33	Combiner installation came in higher than estimated. Please see Exhibit 14.
Conduit	\$0.00	\$0.00	Conduit found unnecessary. Please see Exhibit 14.	\$0.00	N/A
Nitrogen Generator	\$5,000.00	\$5,000.00	Please see Exhibit 7B	\$3,977.67	N/A
New Electrical Panel	\$0.00	\$0.00	New electrical sub- panel found unnecessary. Please see Exhibit 14.	\$0.00	N/A
Interim Tower Rental	\$57,600.00	\$57,600.00	Rental fee for tower and ground space to support interim antenna, combiner, and interim transmitter. See Exhibit 7B.	\$57,600.00	N/A

Interim Antenna Rigging	\$70,066.66	\$70,066.66	Cost is for the labor to remove the old side- mount analog channel 62 antenna and waveguide and install new line and interim antenna. Cost came in higher than estimated. Includes weather delays. Please see Exhibit 14.	\$70,066.66	Antenna installation came in higher than estimated. Includes weather delays. Please see Exhibit 14.
Ice Shield	\$744.81	\$744.81	Ice shield for side- mounted interim antenna. Omitted from original estimate. Please see Exhibit 14.	\$744.81	N/A
Sweep test of existing antenna	\$6,730.00	\$3,333.33	The original estimate was rounded to the nearest dollar. This was corrected in the final billing, which was rounded to the nearest cent. Please see Exhibit 14.	\$3,333.33	The original estimate was rounded to the nearest dollar. This was corrected in the final billing, which was rounded to the nearest cent. Please see Exhibit 14.

basic slot antenna, 8 bay., 264 (Wi nput, directional,, elliptically or circularly polarizedincludes shipping, Please see Exhibit 14.shipping, Please see Exhibit 14.Elbow complex, broadband, at antenna input, per 7 3/16.\$16,850.00 statement\$5,260.00 statement updated cost exhibit 14.Updated cost includes tax and shipping, Please see Exhibit 14.\$5,260.00 updated cost includes tax and shipping, Please see Exhibit 14.Updated cost includes tax and shipping, Please see Exhibit 14.Updated cost includes tax and shipping, Please see Exhibit 14.New combiner, cost per channel (without antenna)\$81,954.33 states and shipping, Exhibit 14.Updated cost includes taxes and shipping, taxes and shipping, taxes and shipping, exhibit 14.\$81,954.33 cost cost cost includesUpdated cost cost includes taxes and shipping, taxes and shipping, taxes and shipping, exhibit 14.Combiner Cage\$8,355.67 fenced combiner cage area and installation with 10' privacy slats. See Exhibit t 10' privacy slats.S8,355.67 fenced combiner of from See Exhibit t 10' privacy slats. See Exhibit t 10' privacy slats.S8,355.67 from of from slats and ensureCombiner combiner of from slats and ensure and privacy slats.S8,355.67 from slats and around privacy slats.Combiner from slats and around privacy slats.S8,355.67 from slatsCost of from slats and around priv						
complex, broadband, at antennaincludes tax and shipping.cost includes tax and shipping.input, per 7 3/16. reeded)S84,200.00\$81,954.33Updated cost includes\$81,954.33Updated cost per knibit 14.New combiner, cost per channel (without antenna)\$84,200.00\$81,954.33Updated cost includes\$81,954.33Updated cost princludesNew cost per channel (without antenna)\$84,200.00\$81,954.33Updated cost includes\$81,954.33Updated cost princludesCombiner Cage\$84,200.00\$81,954.33Updated cost includes\$81,954.33Updated cost privacy statsCombiner Cage\$8,355.6724x20' fenced\$8,355.67Cost to install fenced combiner cage area and installation installation combiner\$8,355.67Cost to combiner fencing cage area and and installation combiner CBS Suite 7B and Exhibit 14.Primary Antenna TFU-17ETT rVP-R 04\$168,280.00\$168,280.00 S6,400.00\$151,452.00Sweep test of existing\$6,730.00\$6,400.00Please see Exhibit 5A\$760.00N/A	Power, Side Mount, basic slot antenna, 8 bay,, 264 kW input, directional,, elliptically or circularly	\$63,637.33	\$63,637.33	share (see Exhibit 7B). Updated cost includes taxes and shipping. Please see	\$63,637.33	cost includes taxes and
combiner, cost per channel (without antenna)includes includescost includes(without antenna)S8,355.67\$8,355.67\$4x20' fenced\$8,355.67Cost to install combiner cage area and installation with 10' privacy slats.\$8,355.67Cost to install combiner cage area and installation installation combiner combiner combiner cage area and installation installation installation installation combiner see Exhibit 7B and Exhibit 14.Please see fenced install combiner cage area and installation installation installation installation installation installation installation installation installation installation installation installation 	complex, broadband, at antenna input, per 7 3/16. feedline (if	\$16,850.00	\$5,260.00	includes tax and shipping. Please see	\$5,260.00	cost includes tax and
Cagefencedinstall fencing cage areacagecombinerfencing fencing cage areaandaround around installationslats around installationandaround installationcombiner with 10'with 10'to section privacy slats.of from Please set Exhibit 14.Primary Antenna TFU-17ETT VP-R O4\$296,230.00\$168,280.00\$296,230.00\$168,280.00\$151,452.00Sweep test of existing\$6,730.00\$6,400.00Please see Exhibit 5A\$5,760.00	combiner, cost per channel (without	\$84,200.00	\$81,954.33	includes taxes and shipping. Please see	\$81,954.33	cost
Antenna TFU-17ETT /VP-R 04 Sweep test \$6,730.00 \$6,400.00 Please see \$5,760.00 N/A of existing Exhibit 5A		\$8,355.67	\$8,355.67	fenced combiner cage area materials and installation with 10' privacy slats. See Exhibit 7B and	\$8,355.67	install fencing and PVC slats around combiner to section
of existing Exhibit 5A	Antenna TFU-17ETT	\$296,230.00	\$168,280.00		\$151,452.00	
	of existing	\$6,730.00	\$6,400.00		\$5,760.00	N/A

UHF - High Power Top Mount (200- 1000 kW), One station antenna , elliptically or circularly	\$289,500.00	\$161,880.00	Exhibit 5A Items 1 and 2, minus \$16,425 cost of V-Pol.	\$145,692.00	N/A
polarized Sub-total	\$625,376.80	\$480,194.46	N/A	\$462,344.13	N/A
Total for all systems	\$3,830,098.07	\$3,019,727.86	N/A	\$2,690,286.32	N/A

Components

Actual Information	
Description	File Name

Install Combiner		
	Component Description: Amount:	Combiner installation came in higher than estimated. Please see Exhibit 14. \$9,712.33
	Component Description:	Invoice is 50% Down Payment for
		\$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of Interim Combiner Installation, Exhibit 6C, 3-C-2.)
	Amount:	\$4,166.67
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of Interim Combiner Installation, Exhibit 6C, 3-C-2.)
	Amount:	\$2,083.33

Component Description: Amount:	Conduit found unnecessary. Please see Exhibit 14. (\$625.01)
Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 25% of the Interim Conduit. (See Exhibit 6C, 3- C-1) \$208.34
Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 50% of the Interim Conduit. (See Exhibit 6C, 3- C-1) \$416.67

Nitrogen Generator		
	Component Description:	Nitrogen generator to pressurize interim line. \$227.67
	Amount.	ΨΖΖΤ.ΟΤ
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 25% of the Interim Nitrogen Generator. See Exhibit 6C, 3-D-1.
	Amount:	\$1,250.00
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 50% of the Interim Nitrogen Generator. (See Exhibit 6C, 3-D-1.)
	Amount:	\$2,500.00

New Electrical Panel		
	Component Description: Amount:	New Subpanels found unnecessary. Please see Exhibit 14. (\$1,250.00)
	Component Description:	Invoice is 50%
		Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 50% of the Interim Site Electrical Sub Panels. (See Exhibit 6C, 3-C-6.)
	Amount:	\$833.33
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 25% of the Interim Site Electrical Sub Panels. (See Exhibit 6C, 3-C-6.)
	Amount:	\$416.67

Interim Tower Rental		
	Component Description:	Please see Exhibit 14.
	Amount:	\$14,400.00
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This amount is 50% of Interim Site Rent, Exhibit 6C 1-B-1.
	Amount:	\$28,800.00
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This amount is 25% of Interim Site Rent, Exhibit 6C 1-B-1.
	Amount:	\$14,400.00

Interim Antenna Rigging		
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of Interim Antenna Installation, pro rata share. (See Exhibit 6C, 3-C-1.)
	Amount:	\$13,750.00
	Component Description:	Antenna installation came in higher than estimated. Includes weather delays. Please see Exhibit 14. \$28,816.66
		• - ,
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of Interim Antenna Installation, pro rata share. (See Exhibit 6C, 3-C-1.) \$27,500.00
	Amount:	φ21,300.00

	Component Description:	Ice shield for side- mounted interim antenna. Omitted from original estimate. Please
	Amount:	see Exhibit 14. \$744.81
Sweep test of existing antenna	Component Description:	RF system testing.
	Amount:	Please see Exhibit 14. \$833.34
	Component Description:	Invoice is 50%
		Down Payment for \$438,330 ATC total estimated cost, main plus interim.
		(See Exhibits 6C and 7C). This cost is 50% of Antenna Line sweep test. (See Exhibit 6C, 3-
	Amount:	C-2.) \$1,666.66
	Component Description:	Invoice is 25% Down Payment for
		\$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C
		and 7C). This cost is 25% of Antenna Line sweep test.
	Amount:	(See Exhibit 6C, 3- C-2.) \$833.33

UHF - High Power, Side Mount, basic slot antenna, 8 bay,, 264 kW input, directional,, elliptically or circularly polarized	Component Description:	Updated cost includes taxes and shipping. Please see Exhibit 14.
	Amount:	\$18,637.33
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of the Interim Antenna, pro rata share. (See Exhibit 6C, 3- B.)
	Amount:	\$15,000.00
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of the Interim Antenna, pro rata share. (See Exhibit 6C, 3- B.)
	Amount:	\$30,000.00

Elbow complex, broadband, at antenna input, per 7 3/16. feedline (if needed)	Component Description:	Updated cost includes tax and shipping. Please
	Amount:	see Exhibit 14. \$2,760.00
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC tota estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 50% of the Interim Antenna Elbow Complex. (See Exhibit 6C, 3- C-2.)
	Amount:	\$1,666.67
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC tota estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 25% of the Interim Antenna Elbow Complex. (See Exhibit 6C, 3-
		(See Exhibit 6C, 3 C-2.)

New combiner, cost per channel (without antenna)	Component Description:	Updated cost includes taxes and shipping. Please
	Amount:	see Exhibit 14. \$24,454.33
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC tota estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of the Interim Combiner. (See Exhibit 6C, 3- C-1.)
	Amount:	\$19,166.67
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC tota estimated cost, main plus interim. (See Exhibits 6C
		and 7C). This cost is 50% of the Interim Combiner. (See Exhibit 6C, 3 C-1.)
	Amount:	\$38,333.33

Combiner Cage		
	Component Description:	Please see Exhibit 14.
	Amount:	\$4,605.67
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 25% of the Interim Combiner Cage. (See Exhibit 6C, 3-C-3.) \$1,250.00
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is for 50% of the Interim Combiner Cage. (See Exhibit 6C, 3-C-3.)
	Amount:	\$2,500.00

Sweep test of existing antenna		_
	Component Description:	Progress payment
		for sweep measurements of
		antenna and line.
		Please see Exhibit
	Amount:	5A for quote. \$2,880.00
	Amount:	φ2,000.00
	Component Description:	Down payment for
		sweep test of
		antenna and line.
	Amount:	\$2,880.00
UHF - High Power Top		
Mount (200-1000 kW), One	Component Description:	Primary Antenna
station antenna, elliptically		and Elbow
or circularly polarized		Complex Down
		Payment. Please
		see Exhibit 5A for
		Quote. Excludes
		Vertical
		Polarization
		Upgrade.
	Amount:	\$72,846.00
	Component Description:	Down payment for
		primary antenna
		and elbow
		complex. Excludes
		vertical
		polarization.
		Please see Exhibit
		31.

Transmission Line

Cost Information

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

Description Interim Transmission Line	Predetermined Cost Estimate \$416,728.90	Estimated Cost \$180,002.57	Estimated Cost Justification	Actual Cost \$180,002.57	Actual Cost Justification
TX Line to Interim Combiner	\$34,890.00	\$34,890.00	Horizontal run of transmission line between transmitter and interim combiner. Includes Installation. (See Exhibit 7B.)	\$34,890.00	N/A
Interim Coax Switch	\$50,503.90	\$50,503.90	Coaxial switch between interim transmitter and combiner. Permits off- air testing of interim transmitter. Includes Installation. (See Exhibit 3B, Items D and G.)	\$50,503.90	N/A

Rigid Transmission Line - copper, 7 3 /16" broadband	\$331,335.00	\$94,608.67	Pro-rata Material costs for 995 foot 7-3/16" Broadband transmission line and three (3) elbows. Updated cost includes taxes and shipping for many cut pieces. Please see Exhibit 14.	\$94,608.67	Updated cost includes taxes and shipping for many cut pieces. Please see Exhibit 14.
Primary Transmission Line	\$350,344.21	\$269,399.81		\$191,119.33	
Horiz and Ceiling Anchors	\$1,287.64	\$1,287.64	Horizontal and Ceiling Mounting Hardware for Primary Line (please see Quote in Exhibit 35). Includes shipping (please see Exhibit 37).	\$1,287.64	N/A

Sub-total					
	\$767,073.11	\$449,402.38	N/A	\$371,121.90	N/A
Rigid Transmission Line - copper, 6 1 /8" broadband	\$266,800.00	\$185,855.60	Required for new antenna (see Exhibit 5A).	\$181,707.54	N/A
Additional Elbow	\$2,139.84	\$2,139.84	Additional 6- inch elbow (Exhibit 32). Includes shipping (Exhibit 34).	\$2,139.84	N/A
RF Accessories	\$74,132.42	\$74,132.42	Coaxial Switch, Switch Controller, Dummy Load, etc. See Exhibit 9, Item C.	N/A	N/A
TX Line Mounting Hardware	\$5,984.31	\$5,984.31	Primary Transmission Line Mounting Hardware. Please see Exhibit 24 for quotation. Includes sales tax and freight shown in Exhibit 25. Also includes additional hardware shown in Exhibit 26.	\$5,984.31	N/A

Components

Actual Information
Description

File Name

TX Line to Interim Combiner		
	Component Description: Amount:	Increased form original scope. Please see Exhibit 14. \$8,722.50
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of materials and labor to connect Interim transmitter to combiner. (See Exhibit 6C, 1-B-1.) \$8,722.50
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of materials and labor to connect Interim transmitter to combiner. (See Exhibit 6C, 1-B-1.) \$17,445.00

Interim Coax Switch		
	Component Description:	One-third progress payment of items D and G from GatesAir quote Q- 76546 (please see Exhibit 3B).
	Amount:	\$16,834.63
	Component Description:	Final payment for
		Items D and G
		Exhibit 3B.
	Amount:	\$33,669.27

Rigid Transmission Line -	
copper, 7 3/16" broadband Component Description: Updated cost includes taxes and shipping for many cut pieces. Please see Exhibit 14.	/
Amount: \$36,401.17	
Component Description: Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of Interim Transmission Line pro rata share. (See Exhibit 6C, 3 A.)	e ,
Amount: \$19,402.50	
Component Description:Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of Interim Transmission Line pro rata share. (See Exhibit 6C, 3 A.)Amount:\$38,805.00	e ,

Horiz and Ceiling Anchors		
	Component Description:	Horizontal and ceiling mounting hangers for primary transmission line. See quote in Exhibit 35.
	Amount:	\$1,172.80
	Component Description:	Freight for ceiling and horizontal transmission line hangers - primary line.
	Amount:	\$114.84
TX Line Mounting Hardware		
	Component Description:	Hardware for primary transmission line. See quote in Exhibit 24. Includes Freight
	Amount:	and Sales Tax. \$5,784.91
	Component Description:	Additional hardware for
		primary transmission line. See quote in Exhibit 24.
	Amount:	Includes Freight and Sales Tax. \$199.40
RF Accessories	Information not provided.	

Additional Elbow		
	Component Description: Amount:	One six-inch elbow. Please see quote in Exhibit 32. \$2,025.00
	Component Description:	Freight - One Six- Inch elbow.
	Amount:	\$114.84

Rigid Transmission Line -		
copper, 6 1/8" broadband	Component Description:	Primary transmission line; cut pieces. Please see Exhibit 5A for
	Amount:	quote. \$2,062.50
	Component Description:	Primary transmission line - cut pieces. Please see Exhibit 5A.
	Amount:	\$8,250.00
	Component Description:	Primary transmission line, cut lengths. Please see Exhibit 5A.
	Amount:	\$4,125.00
	Component Description:	Progress payment for primary transmission line. Please see Exhibit 5B for quote.
	Amount:	\$83,635.02
	Component Description:	Down payment for primary transmission line. Please see Exhibit 5A line item 3.
	Amount:	\$83,635.02

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 Cos Justificatio
Primary Tower GTOWER	\$626,113.00	\$410,189.00		\$395,755.67	
Permit Drawing Packages	\$0.00	\$0.00	No Permit drawing packages required for tower or building A&E. Please see Exhibit 14.	\$0.00	N/A
Tower Project Management	\$14,480.00	\$14,480.00	Project management fee for both the primary and interim antenna. See Exhibits 6B, 1- A-1 (\$9,480) and 7B, 3-D-1 (\$5,000). Scheduling and management of the timelines and schedules occurring during the	\$14,480.00	N/A

Structural Engineering	\$6,333.00	\$6,333.00	Rigorous Structural analysis to access the structural capacity and modifications needed to accommodate the repacked equipment. Cost decreased since last estimate. See Exhibit 6B.	\$0.00	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$8,267.00	Cost decreased from prior estimate. See Exhibit 6B.	\$0.00	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$4,000.00	Cost for plumb and tension after customer installation is complete. See Exhibit 6B.	\$4,166.67	Only plumb and tension necessary. See Exhibit 14.

Complex	\$421,000.00	\$377,109.00	Remove and	\$377,109.00	N/A
Tower			Install top-		
(includes, for			mounted,		
example,			candelabra		
those with			antenna.		
candelabras			Remove		
and/or			1,200 feet of		
stacked			waveguide		
antennas)			and install an		
			equal length		
			of rigid		
			coaxial line.		
			Please see		
			Exhibit 21.		
			Includes		
			\$57,200 in		
			Bad Weather		
			Days. See		
			Exhibits 27,		
			28, and 29.		
Sub-total	\$626,113.00	\$410,189.00	N/A	\$395,755.67	N/A
Total for all systems	\$3,830,098.07	\$3,019,727.86	N/A	\$2,690,286.32	N/A

Components

Actual Information	
Description	File Name

Permit Drawing Packages		
	Component Description:	No permits required by local jurisdiction. Please see Exhibit 14.
	Amount:	(\$7,050.00)
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of Tower plus Building Permit Packages, pro rata share. (See Exhibit 7C, 3-D-1 (\$4,700 twice).
	Amount:	\$2,350.00
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of Tower plus Building Permit Packages, pro rata share. (See Exhibit 7C, 3-D-1 (\$4,700 twice). \$4,700.00
	Amount:	\$4,700.00
Tower Project Management		

Component Description: Amount:	Credits 75% of the \$9,480 Project Management fee (see Exhibits 11C and 13C 1A1) and adds \$1,250 for Project Management (Exhibit 14, 3D1 - two places). (\$5,860.00)
Component Description:	Project Management. See Exhibit 15. Previously Invoiced on Milestone 1 (Exhibit 11C) and Milestone 2 (Exhibit 13C) but later refunded (Exhibit 14). \$9,480.00
Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of Interim plus Primary project management. (See Exhibit 6C, 1- A-1 plus Exhibit 7C, 3-D-1.) \$7,240.00

Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of Interim plus Primary project management.
	(See Exhibit 6C, 1- A-1 plus Exhibit
Amount:	7C 3-D-1.) \$3,620.00

Structural Engineering		
	Component Description: Amount:	Credits \$4,749.99 for items claimed to be invoiced separately. Please see Exhibit 14. (\$4,749.99)
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of Structural Analysis, pro rata share. (See Exhibit 6C, 3-A-1.)
	Amount:	\$3,166.66
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of Structural Analysis, pro rata share. (See Exhibit 6C, 3-A-1.)
	Amount:	\$1,583.33

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	Component Description:	Credits \$6,200.01 for costs claimed to be invoiced separately. See Exhibit 14.
	Amount:	(\$6,200.01)
	Component Description:	Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of Tower Mapping, pro rata share. (See Exhibit 7C, 3-A-1.)
	Amount:	\$2,066.67
	Component Description:	Invoice is 50% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of Tower Mapping, pro rata share. (See Exhibit 7C, 3-A-1.)
	Amount:	\$4,133.34

Minor tower reinforcement /modifications	Component Description:	Only plumb and
	Component Description.	tension necessary.
		See Exhibit 14.
	Amount:	\$1,166.67
	Component Description:	Invoice is 25%
		Down Payment for
		\$438,330 ATC
		total estimated
		cost, main plus
		interim. (See
		Exhibits 6C and
		7C). This cost is
		25% of tower
		Plumb and
		Tension, pro rata
		share. (See Exhibit
		7C, 3-A-2.)
	Amount:	\$1,000.00
	Component Description:	Invoice is 50%
		Down Payment for
		\$438,330 ATC
		total estimated
		cost, main plus
		interim. (See
		Exhibits 6C and
		7C). This cost is
		50% of tower
		Plumb and
		Tension, pro rata
		share. (See Exhibit
		7C, 3-A-2.)
	Amount:	\$2,000.00

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Component Description:	Primary Antenna and Line Rigging Final Payment. Please see Exhibit
	Amount:	21 for quotation. \$159,954.50
	Component Description:	Bad Weather Days. Please see Exhibit 27.
	Amount:	\$8,450.00
	Component Description:	50% Down Payment for Towe Rigging. Please see Exhibit 21 for
	Amount:	quotation. \$159,954.50
	Component Description:	Bad Weather Days. Please see
	Amount:	Exhibit 28. \$29,250.00
	Component Description:	Bad Weather
		Days. Please see Exhibit 29.
	Amount:	\$19,500.00

Outside Professional Services

Cost Information

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

	Predetermined	Estimated	Estimated Cost		Actual Co
Description	Cost Estimate	Cost	Justification	Actual Cost	Justificati
Outside Professional Services	\$92,775.00	\$70,083.00		\$13,008.33	
RF System Test - Interim	\$5,000.00	\$5,000.00	Radiofrequency system test of interim antenna system and combiner. Please see Exhibit 14, item 3-D-1, which was missed on the original estimate.	\$5,000.00	N/A
Site Coordination Meeting	\$2,500.00	\$2,500.00	Meeting to coordinate efforts between broadcasters, tower owner, and tower contractors.	\$2,500.00	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$250.00	N/A	N/A	N/A
RF Exposure Measurements	\$21,050.00	\$3,333.00	RF Exposure measurements. See Exhibit 7B.	\$833.33	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$4,000.00	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
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	N/A	\$1,300.00	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
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$875.00	N/A

Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	Please see Exhibit 14.	\$2,500.00	N/A
Project management of the transition	\$39,500.00	\$37,500.00	Company lacks internal resources.	N/A	N/A
Sub-total	\$92,775.00	\$70,083.00	N/A	\$13,008.33	N/A
Total for all systems	\$3,830,098.07	\$3,019,727.86	N/A	\$2,690,286.32	N/A

Components

File Name	
Component Description:	Radiofrequency system test of interim antenna system and combiner. Missed in original estimate. Please see Exhibit 14. \$5,000.00
	Component Description:

Site Coordination Meeting		
	Component Description:	Site coordination
		meetings. Please
		see Exhibit 14; 1-B-
		1.
	Amount:	\$625.00
	Component Description:	Invoice is 50%
		Down Payment for
		\$438,330 ATC total
		estimated cost,
		main plus interim.
		(See Exhibits 6C
		and 7C). This cost
		is 50% of Site
		Coordination
		Meetings, pro rata
		share. (See Exhibit
		7C, 1-B-1.)
	Amount:	\$1,250.00
	Component Description:	Invoice is 25%
		Down Payment for
		\$438,330 ATC total
		estimated cost,
		main plus interim.
		(See Exhibits 6C
		and 7C). This cost
		is 25% of Site
		Coordination
		Meetings, pro rata
		share. (See Exhibit
		7C, 1-B-1.)
	Amount:	\$625.00
ASR modification (prepare FCC Form 854)	Information not provided.	

RF Exposure		
Measurements	Component Description:	Please see Exhibit 14. Actual cost
		apparently less
	A	than anticipated.
	Amount:	(\$1,666.67)
	Component Description:	Invoice is 50%
		Down Payment for
		\$438,330 ATC total
		estimated cost,
		main plus interim. (See Exhibits 6C
		and 7C). This cost
		is 50% of Interim
		RF Exposure
		Measurements, pro
		rata share. (See
	Amount:	Exhibit 6C, 1-A-4.) \$1,666.67
	Component Description:	Invoice is 25%
		Down Payment for
		\$438,330 ATC total
		estimated cost,
		main plus interim.
		(See Exhibits 6C
		·
		(See Exhibits 6C and 7C). This cost
		(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro
		(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro rata share. (See
	A	(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro rata share. (See Exhibit 6C, 1-A-4.)
	Amount:	(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro rata share. (See
	Amount:	(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro rata share. (See Exhibit 6C, 1-A-4.)
of lease and other matters		(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro rata share. (See Exhibit 6C, 1-A-4.)
Attorney Fees - Negotiation of lease and other matters for shared locations RF Consulting Engineer		(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro rata share. (See Exhibit 6C, 1-A-4.)
of lease and other matters for shared locations RF Consulting Engineer Fees- Aux Antenna: Prepare engineering	Information not provided.	(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro rata share. (See Exhibit 6C, 1-A-4.)
of lease and other matters for shared locations RF Consulting Engineer Fees- Aux Antenna:	Information not provided.	(See Exhibits 6C and 7C). This cost is 25% of Interim RF Exposure Measurements, pro rata share. (See Exhibit 6C, 1-A-4.)

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	Component Description:	Prepare Engineering Section of FCC Construction Perm Application.
	Amount:	\$1,300.00
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Perform engineering study for new channel assignment and antenna development	Component Description:	Conduct review of channel assignment. Determine Max ERP.
	Amount:	\$875.00
Address transition timing		
and coordination issues w/ other stations and wireless	Component Description:	Address transition timing. This item was missed on original ATC estimate but included in Exhibit 14.
	Amount:	\$2,500.00
Project management of the transition	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	\$95,116.36	\$87,266.36		\$20,726.56	
Deinstall Old Transmitter	\$21,844.80	\$21,844.80	Complete disconnection of Harris Sigma CD transmitter and move to staging area on site. (See Exhibit 3B, Item I.)	\$0.00	N/A
MVPD Notification of Channel Change	\$1,000.00	\$1,000.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
Local Zoning	\$5,000.00	\$5,000.00	N/A	N/A	N/A

Non- zoning permits	\$0.00	\$0.00	No permits were required by the local jurisdiction. Please see Exhibit 14.	\$0.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$20,000.00	\$20,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	\$34,276.56	\$34,276.56	Includes shipping for primary transmitter (Exhibit 3B, Page 1), Primary Antenna and TX Line (Exhibit 38), and various cut length lines (Exhibits 39, 40, and 42.)	\$16,976.56	N/A
DTV Medical Facility Notification	\$11,550.00	\$3,750.00	Please see quote in Exhibit 43	\$3,750.00	N/A
Sub-total	\$95,116.36	\$87,266.36	N/A	\$20,726.56	N/A
Total for all systems	\$3,830,098.07	\$3,019,727.86	N/A	\$2,690,286.32	N/A

Components

Actual Information	
Description	File Name

Deinstall Old Transmitter		
	Component Description:	Credit for removal of old transmitter (see Exhibit 3B Item I) since work has not been completed. Will be billed on a future invoice. (\$7,281.60)
	Component Description:	One-third progress payment of item I from GatesAir quote Q-76546 (please see Exhibit 3B). \$7,281.60
MVPD Notification of Channel Change	Information not provided.	
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	
FCC Filing Fees - Form 2100 minor change CP application	Information not provided.	
Local Zoning	Information not provided.	

Component	Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 50% of Building Permit costs. (See Exhibit 7C, 1-A-3.)
Amount:	\$375.00
Component	Description: No permits were required by local jurisdiction. Please see Exhibit 14.
Amount:	(\$562.50)
Component I Amount:	Description: Invoice is 25% Down Payment for \$438,330 ATC total estimated cost, main plus interim. (See Exhibits 6C and 7C). This cost is 25% of Building Permit costs. (See Exhibit 7C, 1-A-3.) \$187.50
Disposal Costs (for Information no equipment and other waste, net of any salvage value)	ot provided.

Equipment Delivery and Handling Charges	Component Description: Amount:	Shipping for Primary Antenna and Transmission Line. Please see Exhibit 38. \$9,070.20
	Component Description: Amount:	Freight for Cut Length Primary Transmission Lines shown in Dielectric Invoice 677031 (Exhibit 41). \$1,209.80
	Component Description: Amount:	Freight for Primary Transmission Line Cut Sections. See Exhibit 39. \$1,073.45
	Component Description:	Freight for Primary Transmission Line Cut Sections. Please see Exhibit 40. \$5,623.11
DTV Medical Facility Notification	Component Description:	Please see quotation in
	Amount:	Exhibit 43. \$3,750.00

Cost Information	Grand Total				
		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$3,830,098.07	\$3,019,727.86	\$2,690,286.32	

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. 	
		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.	Andrew J Siegel Assistant Secretary
	03/25/2020

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).
- 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.

I declare, under penalty of perjury, that I am an authorized representative of the above- named applicant for the Authorization(s) specified above. Assistant Secretary		The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 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	thorized representative of the above- d applicant for the Authorization(s)	Siegel

Attachments