

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility	51570	Service: DTV	Call	WKBD-TV	Channel: 34 (UHF)
ID:			Sign:		
File	000002	7200			
Number:					
FRN: 00	02063931	Date	10/16		
		Submitted:	/2020		

Applicant Name, Type, and Contact Information

Information

1	Applicant	Address	Phone	Email	Applicant Type
	DETROIT TELEVISION STATION WKBD INC Doing Business As: DETROIT TELEVISION STATION WKBD INC	Daniel G. Ryson 2020 M. St., NW - Licensing DEPT Washington, DC 20036 United States	+1 (202) 457- 4505	dryson@cbs. com	Corporation

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer	Preparer Contact Name and Information				
Contact Information	Applicant	Address	Phone	Email	
	Daniel G. Ryson Director of Spectrum Management ViacomCBS	Daniel G. Ryson 2020 M. St., NW - Licensing DEPT Washington, DC 20036 United States	+1 (202) 457- 4074	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	Interim 3-1/8" line to be connected to existing antenna. Existing 6-1/8" line to be connected to new channel 34 top mount Dielectric Model TFU-18GTH/VP-R 4C180 antenna

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

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Primary Transmi

xisting Transmitter Inforn	mation	
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ransmitter	Section	Question	Response
	Existing Transmitter Description	Type of change	Retune Existing
		Use	Primary (Main)
		Ownership	Owned
		Owner	N/A
		Is this transmitter currently shared with another station?	No
		Is this transmitter currently in operating condition?	Yes
	Existing Transmitter	Manufacturer	GatesAir
	Manufacturer and Type	Model	ULXT-10AT

	Year	2015
	Туре	Solid State
-	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	9 kW

Primary Transmitter Section

er	Section	Question	Response
	New IOT Tubes	Number of Tubes (including accessories) needed	N/A
	New Mask Filter	Power	Other
		Other Power	20 kW
	New Exciter	Is a new exciter needed?	No

Primary Other Transmitter Costs

Transmitter	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	No
		Switchgear (industrial 800 amp)	No
		Transformer (480V)	No
		Power	N/A
		Rigid Conduit and Wiring	No
		Size	N/A
		Length	N/A
		Other Electrical Service	Yes
		Description	Various Main Site Electrical Work (See Exhibit 2A)

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 Transmitter	Other Transmitter Cost Not Listed		
	Name	Description	
	Additional Parts	Additional Parts Needed During Installation. See quotation Exhibit 13.	
	State Sales Tax	6% Sales Tax on Primary Transmitter and Mask Filter. See Exhibit 1, Page 1	

Auxiliary	Add Transmitter Information			
Transmitter	Section	Question	Response	
	Existing Transmitter Description	Type of change	Purchase New	
		Use	Auxiliary (Backup)	
		Description of Use	Auxiliary	
		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	DCX2	
		Year	2008	
		Туре	Inductive Output Tube	
		IOT Power Type	Single	
		Power Capacity	20 kW	

Add Transmitter Information

Auxiliary Transmitter	New Transmitter Costs			
	Section	Question	Response	
	New Transmitter	Use	Auxiliary (Backup)	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	Yes	
		Manufacturer		
		Model	ULXTE-30	
		Transmitter Type	Solid State	
		Solid State Cooling	Liquid Cooled	
		Solid State Power capacity	19.2 kW	
		Justification for New Transmitter	Manufacturer cannot retune existing transmitter (see Exhibit 3). Replacement IOT transmitter (see Exhibit 4) is more expensive than proposed solid-state system (see Exhibit 5).	

Auxiliary Transmitter	Other Transmitter Costs		
	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 Electrical Work (See Exhibit 6A).
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 Transmitter	Other Transmitter Cost Not Listed		
	Name	Description	
	State Sales Tax	State Sales Tax. See Exhibit 5, Page 1	
	RF Accessories	Coaxial switch, switch controller, dummy load, etc. See Exhibit 5, Item C.	
	Deinstall Existing Aux Transmitter	Disconnect and remove existing Comark Transmitter. See Exhibit 5, Item E.	

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

Primary	Existing Antenna Information			
Antenna	Section	Question	Response	
	Existing Antenna Description	Type of change	Purchase New	
		Antenna Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is the existing antenna shared with another station or stations?	No	
		Is the existing antenna directional?	Yes	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	No	
	Existing Antenna	Class	Full Power	
	Manufacturer and Type	Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	Other	
		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	PowerLite	
		ERP: (Effective Radiated Power)	180.0 kW	
		Manufacturer		

Model	TLP-24H
 Year	1999

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?	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	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)	195.0 kW	
		Manufacturer		
			1	

Model	TFU-18GTH /VP-R 4C180
Year	2017
Justification for New Antenna	Existing antenna cannot be re-tuned to new channel

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
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes

Sweep	Test
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Primary Other Antenna Cost Not Listed

Antenna Information not provided.

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

Existing Transmission Line Primary Existing Transmission

smissio	Section	Question	Response
	Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Primary (Main)	
		Description of Use	N/A
		Ownership	Owned
		Owner	N/A
		Site	N/A
		Is the existing transmission line shared with another station or stations?	No
		Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric	
	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	1100 feet per run

Primary Other Transmission Line Expenses Not Listed Transmission

•	Name	Description
	Preliminary TX Line Sweep	Initial line sweep. Required to determine that channel 14 line could be utilized at channel 34.
	Additional Rigid Line	240 feet of Additional Transmission Line

Interim				
Transmissio	n Line Section	Question	Response	
	New Transmission Line Costs	Use	Interim	
		Description of Use	N/A	
		Change Type	Purchase New	
		Туре	Rigid	
		Diameter	3 1/8 inches	
		Segment Length	Broadband	
		Other Segment Length		
		Number of parallel runs	1	
		Length	1100 feet per run	
		Justification for New Transmission Line	Interim line will temporarily feed pre- transition antenna so existing line can be used to feed post- transition antenna.	

Interim New Transmission Line

Other Transmission Line Expenses Not Listed Transmission Line Description

Additional Elbow Complex	Elbow Complex Required from Ice Bridge Thru-Wall Into Transmitter Building.
Repack Sweep	See Exhibit 7A Item 20

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	1007996	
	Coordinates (NAD83 (Latitude (NAD83)	42° 29' 01.0" N-	
North American I of 1983))	North American Datum of 1983))	Longitude (NAD83)	083° 18' 44.0" W-	
		Overall Structure Height	1052.81 feet	
		Support Structure Height	998.35 feet	
		Ground Elevation Above Mean Sea Level (AMSL)	697.17 feet	

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	American Tower, LLC
Date Constructed	01/01/1968

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
68444	WDWO-CD	DTV
5800	WPXD-TV	DTV

Primary Tower Modification Costs

Tower

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:	Serious Reinforcement needed

Primary Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	Candelabra

Other Tower Expenses Not Listed			
Name	Description		
Tower Project Management	Tower construction project management.		
Tower and Ground Permit Drawings	Drawings of proposed changes on tower and ground.		
Tower Rent	Tower rent to allow pre-transition and post- transition antennas on the tower simultaneously.		
Site Coordination Meeting	Meetings to coordinate broadcasters, tower owner, and tower construction contractors.		
	Name Tower Project Management Tower and Ground Permit Drawings Tower Rent		

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	No
		For Main Facility	Yes
		Prepare engineering section of Form FCC License to Cover Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare request for Special Temporary Authority	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	No
	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	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Other Professional Services Expenses Not Listed Professional Services roostsided.

Other	Section	Question	Response
Expenses	AM Pattern Disturbance	Is an Impact Study needed?	No
		Is Remediation needed?	No
	Facility Expenses	Name	N/A
		Other Distributed Transmission System Expenses Not listed	N/A
		Name	N/A
		Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
	Permit and Filing Costs	Local Zoning	Yes
		Non-zoning permits	Yes
		BLM or NFS Coordination	No
		FCC Construction Permit Minor Change	No
		FCC License to Cover Application	Yes
		FCC Special Temporary Authority Application	Yes
	Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
		Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
		Does this relocation require Equipment Storage?	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

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 ULXT-10AT	\$162,680.40	\$331,565.69		\$330,412.34	
State Sales Tax	\$18,036.00	\$18,036.00	6% State Sales Tax on Primary Transmitter, Mask Filter, and Installation shown in Exhibit 1A.	\$17,103.12	N/A
Additional Parts	\$5,160.72	\$5,160.72	Additional miscellaneous parts required during installation and modification of transmitter. See quote (Exhibit 13) and sales tax (Exhibit 18).	\$5,160.72	N/A

Other Electrical Service: Various Main Site Electrical Work (See Exhibit 2A)	\$7,757.00	\$7,757.00	See Exhibit 2A. Anticipated electrical service cost decreased considerably after determining that much of existing wiring and conduit can be repurposed for the new transmitter.	\$7,757.00	N/A
UHF and VHF - minor banding issues	\$105,200.00	\$274,085.29	Allocation increases ERP from 180 kW to 283 kW so this is not a minor banding issue. Cost shows modification from a GatesAir ULXT-10 to ULXT-20, extra power modules, and re-tune. Please See Exhibit 1A, Items A and C. (Estimate was revised April, 2018.)	\$273,864.82	N/A
Other 20 kW mask filter	\$26,526.68	\$26,526.68	Mask filter is required due to increase in allocation ERP and thus TPO. See Exhibit 1A.	\$26,526.68	N/A

Auxiliary Transmitter ULXTE-30	\$843,604.26	\$686,976.28		\$686,197.47	
Deinstall Existing Aux Transmitter	\$22,617.80	\$22,617.80	Deinstall Existing Auxiliary Transmitter and Advanced Site Survey. See Exhibit 5A, Item E.	\$22,617.80	Sub-total equals Estimated Cost.
RF Accessories	\$77,461.68	\$77,461.68	Coaxial switch, coaxial switch controller, dummy load, etc. See Exhibit 5A, Item C.	\$77,461.68	Sub-total equals estimated cost.
State Sales Tax	\$33,537.78	\$33,537.78	6% Sales Tax on Auxiliary Transmitter, Mask Filter, RF Accessories, Etc. See Exhibit 23A.	\$33,493.70	N/A
Other Electrical Service: Various Electrical Work (See Exhibit 6A).	\$25,987.00	\$25,987.00	Please See Exhibit 6A, which supersedes Exhibit 6. The newer estimate is believed more accurate.	\$25,987.00	N/A
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$527,372.02	See Exhibit 5A, Items A, B, and D.	\$526,637.29	N/A
Sub-total	\$1,006,284.66	\$1,018,541.97	N/A	\$1,016,609.81	N/A

Total for	\$3,240,830.06	\$2,283,788.57	N/A	\$1,951,632.78	N/A
all					
systems					

Components

Actual Information Description	File Name	
State Sales Tax		
	Component Description:	Invoice is divided among four cost categories. This portion is sales tax on transmitter and mask filter items.
	Amount:	\$17,103.12
	Component Description:	Sales Tax Won't
		be Billed Until Final Invoice.
	Amount:	N/A
Additional Parts		
	Component Description:	Misc Parts Required during modification and installation of main transmitter.
	Amount:	\$5,160.72
Other Electrical Service: Various Main Site Electrical		
Work (See Exhibit 2A)	Component Description:	Install Main Transmitter
		Electrical. See
	Amount:	quote Exhibit 2A. \$7,757.00

UHF and VHF - minor		
banding issues	Component Description:	Invoice is divided
		among four cost
		categories. This
		portion includes
		items A and C
	A	from original quote.
	Amount:	\$67,416.21
	Component Description:	Invoice is for
		Primary
		Transmitter 1/3
		Down Payment.
		This cost is 1/3 of
		Transmitter,
		installation and
		proof (Exhibit 1A,
	Amount:	Items A and C).
	Anount.	\$91,361.76
	Component Description:	1/3 Down
		Payment of
		Exhibit 1, Items A
		and C. Not
		Including Tax.
		Please see
		November 2017
		Invoices
	Amount:	Statement. \$115,086.85
	Amount.	φττο,000.00

Other 20 kW mask filter		
	Component Description:	Invoice is for Primary Transmitter 1/3 Down Payment. This cost is 1/3 of Transmitter Mask Filter (Exhibit 1A, Item B).
	Amount:	\$8,842.23
	Component Description:	Invoice is divided among four cost categories. This portion includes item B from original quote.
	Amount:	\$17,684.45
Deinstall Existing Aux Transmitter		
Transmitter	Component Description:	Invoice is for Auxiliary Transmitter 1/3 Down Payment. This cost is 1/3 of Aux Transmitter Removal (Exhibit 5A, Item E).
	Amount:	\$7,539.26
	Component Description:	Final Progress Payment. See Invoice 23B. This cost is roughly 2/3 of Cost to de- install existing transmitter. See Exhibit 23B Item E.
	Amount:	\$15,078.54

RF Accessories		
	Component Description:	Final Progress
		Payment. See
		Invoice 23B. This
		cost is roughly 2/3
		of RF Accessories, See
		Exhibit 23B Item
		C.
	Amount:	\$51,641.12
		~ ~., ~_
	Component Description:	1/3 Progress
		Payment. See
		Invoice 10A. This
		cost is 1/3 of RF
		Accessories. See
		Exhibit 5A Item C.
	Amount:	\$25,820.56
State Sales Tax		
	Component Description:	Tax Will be
		Invoiced on final
		bill.
	Amount:	N/A
	Component Description:	Sales Tax
		(Excludes Sales
		Tax on Tablet PC)
	Amount:	\$33,493.70
Other Electrical Service: /arious Electrical Work	Component Description:	Interim
See Exhibit 6A).	Component Description:	Transmitter
		Installation -
		Electrician

LILE Liquid Cooled Solid		
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	Component Description:	1/3 Down payment for
		Transmitter, Mask
		Filter, Installation, Transmitter
		Removal, Proof,
		Tax, and Shipping
	Amount:	\$211,823.14
	Component Description:	See Line Item E,
		Page 21, Exhibit 39.
	Amount:	\$12,498.20
	Component Description:	1/3 Progress
		Payment. See
		Invoice 10A. This
		cost is 1/3 of Transmitter, Masl
		Filter, and
		Installation/Proof.
		See Exhibit 5A Items A, B, and D
	Amount:	\$175,859.85
	Component Description:	Final Progress
		Payment. See
		Invoice 23B. This
		cost is roughly 1/3 of Transmitter,
		Mask Filter, and
		Installation/Proof.
		See Exhibit 23B Items A, B, and D
		Excludes Tablet PC.
	Amount:	\$126,456.10

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-18GTH /VP-R 4C180	\$313,790.00	\$230,890.90		\$209,562.22	
Pattern scatter analysis for side mount high /med power antennas (if not included in antenna base cost)	\$5,260.00	\$5,000.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$10,298.00	See Exhibit 9A, Item 2.	\$4,634.10	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	See Exhibit 9A, Line 10.	\$2,880.00	N/A

UHF -	\$289,500.00	\$209,192.90	See	\$202,048.12	N/A
High			Statement		
Power			for		
Тор			justification		
Mount			and Exhibit		
(200-1000			9A,		
kW), One			excluding		
station			\$16,950		
antenna,			(vertical		
elliptically			polarization),		
or			\$10,298		
circularly			(elbow		
polarized			complex,		
			listed		
			elsewhere),		
			and \$6,400		
			(sweep,		
			listed		
			elsewhere).		
			Note:		
			Antenna		
			quote was		
			revised and		
			cost		
			changed 8		
			/25/2017.		
Sub-total	\$313,790.00	\$230,890.90	N/A	\$209,562.22	N/A
Total for all systems	\$3,240,830.06	\$2,283,788.57	N/A	\$1,951,632.78	N/A

Components

Actual Information Description	File Name
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Component Description:	Invoice is for 45% Main Antenna progress payment. This cost is 45% of the elbow complex. Quote provided as Exhibit 9A. \$4,634.10
Sweep test of existing antenna	Component Description:	Invoice is for 45% Main Antenna progress payment. This cost is 45% of the Sweep Test. Quote provided as Exhibit 9A. \$2,880.00
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	Component Description: Amount:	Antenna Down Payment \$108,594.86
	Component Description:	Invoice is for 45% Main Antenna progress payment. This cost is 45% of the antenna excluding V-Pol cost. See revised antenna quote provided as Exhibit 9A. \$93,453.26

Transmission Line

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmission Line	\$150,143.00	\$110,689.30		\$110,689.30	
Additional Elbow Complex	\$11,743.00	\$11,743.00	Additional elbow complex needed between ice bridge and thru-wall into transmitter building. See parts quote Exhibit 12 (\$6,899) plus labor Exhibit 14 (\$4,844),	\$11,743.00	N/A

Rigid Transmission Line - copper, 3 1 /8" broadband	\$132,000.00	\$92,546.30	Interim transmission line and reducer required to temporarily feed pre- transition antenna. Present transmission line will feed post- transition antenna. See revised quote in Exhibit 7A (\$91,678.30) plus Change Order Exhibit 25 (\$868).	\$92,546.30	N/A
Repack Sweep	\$6,400.00	\$6,400.00	See Exhibit 7A Item 20.	\$6,400.00	N/A
Primary Transmission Line	\$51,683.40	\$51,683.40		\$15,228.40	

Total for all systems	\$3,240,830.06	\$2,283,788.57	N/A	\$1,951,632.78	N/A
Sub-total	\$201,826.40	\$162,372.70	N/A	\$125,917.70	N/A
			again later.		
			were swept		
			34 antenna		
			new channel		
			The line and		
			channel 34.		
			used at		
			line could be		
			that the channel 14		
			determined		
			This sweep		
			Q73214.		
			Quote		
Sweep			GatesAir		
TX Line			28 -		
Preliminary	\$5,603.40	\$5,603.40	See Exhibit	\$5,603.40	N/A
			antenna.		
			primary antenna.		
			height of		
			increase		
			required to		
			90 feet is		
			transmitter.		
			/or		
			antenna and		
			relocate		
			temporarily		
			required to		
			feet is		
			pricing. 150		
			Catalog		
			Cost		
			Widelity		
			using		
			1/8-inch line		
Rigid Line			additional 6		

Actual Information	
Description	File Name

Additional Elbow Complex		
	Component Description:	Labor for installation of additional elbow complex and short horizontal run of transmission line.
	Amount:	\$4,844.00
	Component Description:	Parts required for transmission line and elbow complex between ice bridge and thru-wall building penetration.
	Amount:	\$6,899.00
Rigid Transmission Line - copper, 3 1/8" broadband		
copper, 3 1/6 broadband	Component Description:	45% Down Payment, Interim Antenna Transmission Line. See revised quote Exhibit 7A.
	Amount:	\$44,135.24
	Component Description:	45% Progress Payment, Interim Antenna Transmission Line and Components. See revised quote Exhibit 7A.
	Amount:	\$44,135.24
	Component Description:	Final 10% Payment. Includes necessary 3-to-4 inch reducer. See Change Order
	Amount:	Exhibit 25. \$4,275.82

Repack Sweep		
	Component Description:	Sweep
		Measurements -
		Antenna and Line.
	Amount:	\$6,400.00
Additional Rigid Line		
	Component Description:	Cut pieces 6-inch
		line. See quote
		provided as Exhibit
		9A, Item 6.
	Amount:	\$9,625.00
Preliminary TX Line Sweep		
	Component Description:	This is a sweep of
		the primary line to
		determine that it
		can be used on
		post-transition
		channel 34.
	Amount:	\$5,603.40

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	\$1,578,280.00	\$753,264.00		\$563,747.50	
Site Coordination Meeting	\$2,500.00	\$2,500.00	Site coordination meetings with tower owner, all broadcasters, contractors, and vendors involved with the site deliveries and construction. This cost is for travel and logistic expenses accrued.	\$2,500.00	N/A
Serious tower reinforcement /modifications	\$1,052,000.00	\$250,000.00	It is expected that the additional loads imposed on the tower by the new appurtenances required for repack will cause the tower to fail. The structural failure is expected to be in the serious category (see exhibit 8).	\$225,116.00	N/A

Tower Project Management	\$9,480.00	\$9,480.00	Tower owner project management fee for the transition of one (1) broadcaster. Scheduling and management of the timelines and schedules occurring during the repack.	\$3,125.50	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$409,500.00	Revised Widelity Catalog Pricing	\$318,222.00	N/A
Tower and Ground Permit Drawings	\$9,400.00	\$9,400.00	Generate drawings of tower and ground plans for local permits (see Exhibit 8).	N/A	N/A

Actual Information	
Description	File Name

Component Description: Amount:	Invoice is for final American Towers LLC "True Up" costs. This item is site coordination meeting. \$625.00
Component Description:	Invoice is 25% Down Payment for \$256,666 American Tower Capital Contribution. (See Exhibit 8). This cost is 25% of the Site Coordination Meeting. (See Exhibit 8, 1-B-1.) \$625.00
Component Description:	Invoice is 50% Down Payment for \$256,666 American Tower Capital Contribution. (See Exhibit 8). This cost is 50% of the Site Coordination Meeting. (See Exhibit 8, 1-B-1.) \$1,250.00
	Amount: Component Description: Amount: Component Description:

Serious tower reinforcement		
/modifications	Component Description:	Invoice is for final American Towers LLC "True Up" costs. This item is actual Serious Tower Reinforcement. (See Exhibit 8, 3-A- 2.) \$37,616.00
	Component Description:	Invoice is 25% Down Payment for \$256,666 American Tower Capital Contribution. (See Exhibit 8). This cost is 25% of the Serious Tower Reinforcement. (See Exhibit 8, 3-A- 2.) \$62,500.00
	Component Description:	Invoice is 50% Progress Payment for \$256,666 American Tower Capital Contribution. (See Exhibit 8). This cost is 50% of the Serious Tower Reinforcement. (See Exhibit 8, 3-A- 2.)
	Amount:	\$125,000.00

Tower Project Management		
	Component Description:	Invoice is for final American Towers LLC "True Up" costs. This item is construction project management.
	Amount:	\$1,042.50
	Component Description:	Invoice is 50% Down Payment for \$256,666 American Tower Capital Contribution. (See Exhibit 8). This cost is 50% of the Site Coordination Meeting. (See Exhibit 8, 1-B-1.)
	Amount:	\$2,083.00
	1	

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Component Description:	Antenna and Line installation. Misc. Tower Loading Changes. 10% Final Payment plus unanticipated cost for mats required at job site (Exhibit 22).
	Amount:	\$43,990.20
	Component Description:	Antenna and Line installation. Misc. Tower Loading Changes. 50% Down Payment.
	Amount:	\$152,351.00
	Component Description:	Antenna and Line installation. Misc. Tower Loading Changes. 40% Progress Payment. \$121,880.80
Tower and Ground Permit Drawings	Information not provided.	. ,
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	Component Description: Amount:	Broadcast Tower Mapping \$8,267.00
	Component Description: Amount:	Tower Structural Study \$6,517.00
Tower Rent	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 Justificatior
Outside Professional Services	\$82,115.00	\$68,000.00		\$7,154.00	
RF Exposure Measurements	\$21,050.00	\$10,000.00	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	\$0.00	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$1,600.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$2,012.50	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A

Project management of the transition	\$39,500.00	\$37,500.00	Company lacks internal resources. Also includes ATC project management (see Exhibit 8).	\$1,041.50	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
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	\$2,500.00	N/A
Sub-total	\$82,115.00	\$68,000.00	N/A	\$7,154.00	N/A
Total for all systems	\$3,240,830.06	\$2,283,788.57	N/A	\$1,951,632.78	N/A

Actual Information Description	File Name
RF Exposure Measurements	Information not provided.
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.

Component Description:	Finalize ERP and
	prepare
	Application for
	Construction
	Permit,
	Engineering
	Section.
Amount:	\$1,600.00
Component Description:	Study feasibility of
	reusing existing
	tower pedestal.
Amount:	\$812.50
Component Description:	This invoice is spli
	50/50 with CBS
	station WBXI-CD.
	See attached
	statement.
Amount:	\$262.50
Component Description:	Preliminary
	interference study
	to determine
	appropriate ERP.
Amount:	\$937.50
Information not provided.	
	Component Description: Amount: Component Description: Amount: Component Description:

Project management of the transition	Component Description:	Invoice is 25% Down Payment for \$256,666 American Tower Capital Contribution. (See Exhibit 8). This cost is 25% of the Tower Project Management. (See Exhibit 8, 3-D- 1.) \$1,041.50
Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.	
Address transition timing and coordination issues w/ other stations and wireless	Component Description:	Invoice is for final American Towers LLC "True Up" costs. This item is address transition timing, based on Widelity Cost Catalog. \$2,500.00

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	\$58,534.00	\$50,719.00		\$28,641.55	
Equipment Delivery and Handling Charges	\$20,000.00	\$20,000.00	See also Exhibits 1A, 5A, Invoices 28, 29.	\$18,747.55	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$20,000.00	\$20,000.00	Widelity Catalog Cost shown. Also see Exhibit 27.	\$1,440.00	N/A
Non-zoning permits	\$4,704.00	\$4,704.00	City of Southfield, MI Building Permit. See Exhibit 26.	\$4,704.00	N/A
Local Zoning	\$750.00	\$750.00	N/A	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$3,750.00	Please see quote (Exhibit 15).	\$3,750.00	N/A

MVPD Notification of Channel Change	\$1,000.00	\$1,000.00	N/A	N/A	N/A
Sub-total	\$58,534.00	\$50,719.00	N/A	\$28,641.55	N/A
Total for all systems	\$3,240,830.06	\$2,283,788.57	N/A	\$1,951,632.78	N/A

Actual Information Description	File Name	
Equipment Delivery and Handling Charges	Component Description: Amount:	Freight for primary transmitter. \$6,200.00
	Component Description: Amount:	Freight for Interim Transmitter. \$7,700.00
	Component Description: Amount:	Shipping of various cut 3-inch line sections. \$2,897.79
	Component Description:	Shipping for Thru- Wall Elbow Complex
	Amount:	Hardware. \$1,710.00
	Component Description:	Shipping of transmission line flange lock
	Amount:	washers. \$239.76

equipment and other waste, net of any salvage value)	Component Description:	Drain and proper dispose of transmitter powe transformer oil. See Exhibit 27 fo quote.
	Amount:	\$1,440.00
Non-zoning permits		
	Component Description:	City of Southfield Michigan Building Permit.
	Amount:	\$4,704.00
Local Zoning	Information not provided.	
FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	
DTV Medical Facility Notification	Component Description:	Medical Notification. See
	Amount:	quote (Exhibit 15) \$3,750.00
MVPD Notification of Channel Change	Information not provided.	

Cost Information	Grand Total					
		Predetermined Cost Estimate	Estimated Cost	Actual Cost		
	Total for all systems	\$3,240,830.06	\$2,283,788.57	\$1,951,632.78		

Reimbursem	envestiatus	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
	10/16/2020

Certification	Section	Question	Response
Certification	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.

	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	are, under penalty of perjury, that I am thorized representative of the above- d applicant for the Authorization(s) ied above.	Andrew J Siegel Assistant Secretary
		10/16/2020

Attachments