



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **71428** | Service: **DTV** | Call **WCIU-TV** | Channel: **23 (UHF)** |  
ID: | Sign:  
File **0000028286**  
Number:  
FRN: **0009562265** | Date **12/25**  
Submitted: **/2020**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>WCIU-TV LIMITED PARTNERSHIP</b>	Norman Shapiro	+1 (312) 705-2600	NSHAPIRO@wciu.com	Limited Partnership
Doing Business As:	26 NORTH HALSTED STREET			
WCIU-TV LIMITED PARTNERSHIP	CHICAGO, IL 60661			
	United States			

## Reimbursement Contact Information

### Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

## Preparer Contact Information

### Preparer Contact Name and Information

Applicant	Address	Phone	Email
The Preparer is same as the reimbursement contact.			

## Broadcaster Information and Transition Plan

Question	Response
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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	WCIU broadcasts from Willis Tower in Chicago, IL. WCIU plans operate on the Aux antenna and transmitter while the Main antenna and transmitter are replaced. Once replaced, the Aux antenna and transmitter will be replaced.

## Transmitters

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

**Auxiliary  
Transmitter****Add Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Backup and Maintenance
	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
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	TDU2 8K00LV
	Year	2006
	Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power Capacity	10 kW

**Auxiliary  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	THU9evo-8
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	13.0 kW
	Justification for New Transmitter	The current mask filter is channel-specific and must be replaced. The current transmitter is no longer supported by the manufacturer and as a result, is unable to be retuned. A 8 amp unit is required as a 6 amp outputs 9.75 kW TPO.

**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	Retrofit of existing electrical service for WCIU Auxiliary Transmitter
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	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
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<b>Structural Analysis</b>	WCIU's transmission facility is located on floor 101 of Willis Tower. Willis Tower requires a detailed analysis of all equipment loads with respect to the structural aspects of the building.
<b>State and City Taxes</b>	State and city taxes are required for equipment that is purchased, but not services.
<b>Structural Modifications</b>	As a result of the Structural Analysis, modifications may be required.
<b>Transmitter Installation</b>	Willis Tower has unique labor requirements. Standard transmitter installation practices are not allowed due to labor agreements. Only building electrical and plumbing contractors may perform any electric or plumbing work related to the installation.

**Primary  
Transmitter**

**Existing Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	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
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	CTT-U- CXIC2R
	Year	2009
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	50 kW

**Primary  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	THU9evo-40
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	61 kW
	Justification for New Transmitter	The current mask filter is channel-specific and must be replaced. The current transmitter is no longer supported by the manufacturer and as a result, is unable to be retuned. The cost of a replacement IOT exceeds the cost of a solid state.

**Primary  
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	Retrofit of existing electric service for WCIU Primary Transmitter
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	10 tons
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	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
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<b>Structural Analysis</b>	WCIU's transmission facility is located on floor 101 of Willis Tower. Willis Tower requires a detailed analysis of all equipment loads with respect to the structural aspects of the building.
<b>Transmitter Installation</b>	Willis Tower has unique labor requirements. Standard transmitter installation practices are not allowed due to labor agreements. Only building electrical and plumbing contractors may perform any electric or plumbing work related to the installation.
<b>State and City Taxes</b>	State and city taxes are required for equipment that is purchased, but not services.
<b>Structural Modifications</b>	As a result of the Structural Analysis, modifications may be required.

**Antennas**

Section	Question	Response
Antenna Related Expenses	Do you have antenna related expenses?	Yes

**Auxiliary  
Antenna****Add Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	Retune Existing
	Antenna Use	Auxiliary (Backup)
	Description of Use	Willis Tower NE Master AUX Antenna
	Ownership	Leased
	Owner	BRE Broadcast, LLC
	Site	N/A
	Is this antenna currently shared with any other stations?	Yes
	Is this antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	Yes
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	8

Number of Panels	24
Design power capacity in use	100.0 %
Lower Limit	470.00 MHz
Upper Limit	699.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power) .....	2500.0 kW
Manufacturer	RFS
Model	PHP24C
Year	1999

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

Facility ID	Call Sign
48772	WPWR-TV
10802	WTTW
22211	WFLD
47905	WMAQ-TV
70119	WSNS-TV
71428	WCIU-TV
72115	WGN-TV
73226	WLS-TV

**Auxiliary  
Antenna**

**Adjustment to Existing Antenna**

Section	Question	Response
<b>Sweep Test of Existing Antenna</b>	Do you need a sweep test of existing antenna?	Yes

**Auxiliary  
Antenna**

**Other Antenna Costs**

Section	Question	Response
<b>Combiner for Shared Antenna</b>	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	7
	Frequencies of channels supported	Upper and lower frequency
	Frequency	470.0 MHz - 610.0 MHz

**Auxiliary  
Antenna**

**Other Antenna Cost Not Listed**

Information not provided.

**Primary  
Antenna**

**Existing Antenna Information**

Section	Question	Response
<b>Existing Antenna Description</b>	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?	Yes
<b>Existing Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	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) .....	550.0 kW

Manufacturer	
Model	TFU-10DSC /VP-R CT170
Year	2009

Primary  
Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	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) .....	503.0 kW
	Manufacturer	



Model	TFU-14JSC /VP-R CT170
Year	2019
Justification for New Antenna	The current WCIU main antenna is a slot antenna designed for channel 27. An equivalent replacement antenna is being proposed for channel 23.

## Primary Antenna

### Other Antenna Costs

Section	Question	Response
<b>Combiner for Shared Antenna</b>	Do you need a Combiner for a Shared Antenna?	
	Type	
	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
<b>Elbow Complex</b>	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

<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes

**Primary  
Antenna**

**Other Antenna Cost Not Listed**

<b>Name</b>	<b>Description</b>
<b>State and City Taxes</b>	State and city taxes are required for equipment that is purchased, but not services.
<b>Rigid Transmission Line-Copper</b>	T/L 6-50 EIA LENGTH 15' TO 20' FIXED FLG 1 END/ SWIVEL FLG 1 END
<b>Test Transition</b>	Test transition used for sweeping

**Transmission Line**

Section	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

**Primary Transmission Line****Existing Transmission Line**

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
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	Other
	Other Segment Length	10 feet
	Number of parallel runs	1
	Length	270 feet per run

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Information not provided.

Auxiliary Transmission Line

Add Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Auxiliary (Backup)
	Description of Use	Backup and Maintenance
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmission currently shared with any other stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Andrew
	Type	Flexible Air
	Diameter	5 inches
	Other Diameter	N/A
	Segment Length	N/A
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	80 feet per run

Auxiliary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
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**Willis AUX Antenna**

Due to the change in location of the Willis AUX combiner room, it is estimated that we will need to add approx. 40' of line to the existing line to reach the new combiner room.

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**Tower  
Equipment  
And  
Rigging  
Costs**

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

**Auxiliary  
Tower**

**Add Tower**

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Auxiliary (Backup)
	Description of Use	Backup and Maintenance
	Ownership	Leased
	Is this tower consider Complex?	Located on Building
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	Yes
	Is tower documented for structural analysis?	Yes
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1032960
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	41° 52' 44.0" N-
	Longitude (NAD83)	087° 38' 08.0" W-
	Overall Structure Height	1722.09 feet
	Support Structure Height	1435.35 feet

	Ground Elevation Above Mean Sea Level (AMSL)	595.14 feet
	Structure Type	BMAST - Building with Mast
	Tower Owner	233 Broadcast, LLC
	Date Constructed	09/30/2012

**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
48772	WPWR-TV	DTV
10802	WTTW	DTV
53971	WEBG	FM
73226	WLS-TV	DTV
22211	WFLD	DTV
10981	WCPX-TV	DTV
6377	WTMX	FM
10801	WFMT	FM
71283	WCFS-FM	FM
47905	WMAQ-TV	DTV
51165	WGCI-FM	FM
9613	WBBM-FM	FM
28621	WBMX	FM
72115	WGN-TV	DTV
70119	WSNS-TV	DTV
32334	WJYS	DTV

9617	WBBM-TV	DTV
73228	WLS-FM	FM
74178	WKSC-FM	FM
70042	WLIT-FM	FM

### Other Types of Users

#### Users

LM Land Mobile

LD TV Services

FX FM Services

### Auxiliary Tower

### Tower Modification Costs

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

### Auxiliary Tower

### Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	Located on Building
Helicopter Services Required	Are helicopter services required?	Yes

### Auxiliary Tower

### Other Tower Expenses Not Listed

Information not provided.



## Primary Tower

### Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	Is this tower consider Complex?	Located on Building
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	Yes
	Is tower documented for structural analysis?	No
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1032959
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	41° 52' 44.1" N-
	Longitude (NAD83)	087° 38' 10.2" W-
	Overall Structure Height	1729.97 feet
	Support Structure Height	1435.35 feet
	Ground Elevation Above Mean Sea Level (AMSL)	595.14 feet
	Structure Type	BTWR - Building with Tower

	Tower Owner	233 Broadcast, LLC
	Date Constructed	01/01/2002

**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
47905	WMAQ-TV	DTV
48772	WPWR-TV	DTV
66978	WEDE-CD	DTV
70042	WLIT-FM	FM
10801	WFMT	FM
10802	WTTW	DTV
9613	WBBM-FM	FM
72115	WGN-TV	DTV
9617	WBBM-TV	DTV
71283	WCFS-FM	FM
71425	WWME-CD	DTV
73228	WLS-FM	FM
168662	WMEU-CD	DTV
70119	WSNS-TV	DTV
22211	WFLD	DTV
28621	WBMX	FM
6377	WTMX	FM

**Other Types of Users**

**Users**

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LD TV Services

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FX FM Services

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LM Land Mobile

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**Primary  
Tower**

**Tower Modification Costs**

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**

**Tower Rigging Costs**

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

**Primary  
Tower**

**Other Tower Expenses Not Listed**

Information not provided.

**Outside  
Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	No
	Number of Hours	N/A
	Explanation	N/A
<b>Outside RF consulting Engineering Services</b>	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	Yes
	Quantity	2
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
<b>Attorney and Other Outside Consulting Services</b>	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes

	Prepare request for Special Temporary Authority	Yes
	Quantity	2
	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
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

**Outside Professional Services Costs**      **Other Professional Services Expenses Not Listed**

If wireless is not provided.

## Other Expenses

Section	Question	Response
<b>AM Pattern Disturbance</b>	Is an Impact Study needed?	No
	Is Remediation needed?	No
<b>Facility Expenses</b>	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
<b>Permit and Filing Costs</b>	Local Zoning	No
	Non-zoning permits	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	Yes
	FCC Special Temporary Authority Application	Yes
<b>Other Miscellaneous Expenses</b>	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**

**Other Expenses Not Listed**

Name	Description
<b>Combiner Room Construction</b>	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$90,000 for the Combiner Room Construction for the EAST Tower AUX antenna. WCIU's portion, \$12,857.14
<b>Cylinder Entry Port Resoration</b>	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$150,000 for the Cylinder Entry Port Restoration for the EAST Tower AUX antenna. WCIU's portion, \$25,000.
<b>East Pole Material Disposal</b>	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$80,000 for the East Pole Material Disposal for the EAST Tower AUX antenna. WCIU's portion, \$13,333.33.
<b>Equipment Storage</b>	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$2,000 for the Equipment Storage for the EAST Tower AUX antenna. WCIU's portion, \$333.33.
<b>Outside Project Management</b>	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$95,000 for the Outside Project Management of the EAST Tower AUX antenna. WCIU's portion, \$15,833.
<b>RF Safety Coordination</b>	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$100,000 for the RF Safety Coordination of the EAST Tower AUX antenna. WCIU's portion, \$16,666.67.
<b>Transmission Line Installation</b>	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$125,000 for the Transmission Line Installation of the EAST Tower AUX antenna. WCIU's portion, \$20,833.
<b>Transmission Line Removal</b>	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$250,000 for the Transmission Line Removal of the EAST Tower AUX antenna. WCIU's portion, \$41,666.67.

<b>Transmitter Room Repairs</b>	Repairs of drywall, painting, and floors due to the removal of the existing transmitters and retrofitting for the new transmitters
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Cost  
Information

Transmitters

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 THU9evo-40	\$2,145,831.94	\$1,694,788.77		\$1,506,991.23	
Structural Modifications	<i>\$20,000.00</i>	\$20,000.00	Willis Tower requires loading studies for heavy equipment that is installed in the building. As a result, it is anticipated that additional reinforcement will be required. Actual costs to be determined once final equipment selection has been made.	N/A	N/A
10 Ton system	\$38,900.00	\$37,000.00	N/A	N/A	N/A

Structural Analysis	<b>\$5,500.00</b>	\$5,500.00	Willis Tower requires loading studies for equipment that exceeds normal tenant office loads, such as broadcast equipment. Actual costs to be determined once final equipment selection has been made.	N/A	N/A
State and City Taxes	<b>\$125,297.54</b>	\$125,297.54	State and city taxes are required for equipment that is purchased, but not services. State tax is 6.25% and Chicago is an additional 4%, 10.25% total.	N/A	N/A
Other Electrical Service: Retrofit of existing electric service for WCIU Primary Transmitter	<b>\$83,200.40</b>	\$83,200.40	This allocation covers the cost of both the Primary and Auxiliary transmitters due to a common electrical distribution system. See binder cover letter for additional details.	\$83,200.40	The Actual totals are the same as the Estimated Cost, \$83,200.40.

UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	\$1,788,000.00	\$1,338,856.83	N/A	\$1,338,856.83	N/A
Transmitter Installation	<b>\$84,934.00</b>	\$84,934.00	Willis Tower requires union labor for all electric and cooling connections. This is a general allowance to cover the additional labor fees for union labor to perform the transmitter installation and building water connections.	\$84,934.00	N/A
<b>Auxiliary Transmitter THU9evo-8</b>	<b>\$559,722.45</b>	<b>\$366,651.03</b>		<b>\$321,428.58</b>	
State and City Taxes	<b>\$28,222.45</b>	\$28,222.45	State and city taxes are required for equipment that is purchased, but not services.	N/A	N/A

Transmitter Installation	<b>\$20,000.00</b>	\$20,000.00	Willis Tower requires union labor for all electric and cooling connections. This is a general allowance to cover the additional labor fees for union labor to perform the transmitter installation and building water connections.	\$20,000.00	N/A
Structural Modifications	<b>\$12,500.00</b>	\$12,500.00	Willis Tower requires loading studies for heavy equipment that is installed in the building. As a result, it is anticipated that additional reinforcement will be required. Actual costs to be determined once final equipment selection has been made.	N/A	N/A

Structural Analysis	<b>\$4,500.00</b>	\$4,500.00	Willis Tower requires loading studies for equipment that exceeds normal tenant office loads, such as broadcast equipment. Actual costs to be determined once final equipment selection has been made.	N/A	N/A
Other Electrical Service: Retrofit of existing electrical service for WCIU Auxiliary Transmitter	<b>\$0.00</b>	\$0.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	\$494,500.00	\$301,428.58	N/A	\$301,428.58	N/A
<b>Sub-total</b>	\$2,705,554.39	\$2,061,439.80	N/A	\$1,828,419.81	N/A
<b>Total for all systems</b>	\$4,708,099.73	\$3,111,374.43	N/A	\$2,113,279.30	N/A

## Components

Actual Information	
Description	File Name
Structural Modifications	Information not provided.
10 Ton system	Information not provided.

Structural Analysis	Information not provided.	
State and City Taxes	Information not provided.	
Other Electrical Service: Retrofit of existing electric service for WCIU Primary Transmitter	<b>Component Description:</b>  <b>Amount:</b>	WCIU Primary and Auxiliary transmitter electrical final payment. \$4,160.02  WCIU Primary and Auxiliary transmitter electrical downpayment \$79,040.38
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	<b>Component Description:</b>  <b>Amount:</b>	WCIU Primary Transmitter additional RF components \$21,441.28  WCIU Primary Transmitter Shipping \$15,937.50  WCIU Primary Transmitter Fittings \$3,005.28  WCIU Primary Transmitter Final Payment \$992,498.83

	<b>Component Description:</b>	WCIU Primary Transmitter
	<b>Amount:</b>	Downpayment \$305,384.25
	<b>Component Description:</b>	This invoice is for the 25% Initial down payment of the Primary Transmitter
	<b>Amount:</b>	\$305,384.25
	<b>Component Description:</b>	This invoice is for the 25% Initial down payment for the Main transmitter.
	<b>Amount:</b>	\$305,384.25
	<b>Component Description:</b>	Final invoice for WCIU Main transmitter installation and proof
	<b>Amount:</b>	N/A
	<b>Component Description:</b>	WCIU Primary Transmitter RF sample port extension cables
	<b>Amount:</b>	\$589.69
	<b>Component Description:</b>	50% Initial downpayment for WCIU Main transmitter installation and proof
	<b>Amount:</b>	N/A
Transmitter Installation		

<b>Component Description:</b>	WCIU Main and Aux condensor valve installation
<b>Amount:</b>	\$8,500.00

<b>Component Description:</b>	WCIU Main and Aux transmitter manifold and condensor water piping for heat exchangers
<b>Amount:</b>	\$9,750.60

<b>Component Description:</b>	WCIU Main and Aux transmitter manifold and condensor water piping for heat exchangers
<b>Amount:</b>	\$11,917.40

<b>Component Description:</b>	WCIU Primary Transmitter Installation Final Payment
<b>Amount:</b>	\$50,000.00

<b>Component Description:</b>	WCIU Primary transmitter house cooling pump rebuild
<b>Amount:</b>	\$4,766.00

<b>Component Description:</b>	WCIU Primary Transmitter Installation, 50% final invoice
<b>Amount:</b>	N/A



	<p><b>Component Description:</b> WCIU Primary Transmitter Installation, 50% initial invoice.</p> <p><b>Amount:</b> N/A</p>
State and City Taxes	Information not provided.
Transmitter Installation	<p><b>Component Description:</b> WCIU Auxiliary Transmitter installation final payment</p> <p><b>Amount:</b> \$20,000.00</p> <p><b>Component Description:</b> WCIU Auxiliary Transmitter Installation final 50% invoice</p> <p><b>Amount:</b> N/A</p> <p><b>Component Description:</b> WCIU Auxiliary Transmitter Installation initial 50% invoice</p> <p><b>Amount:</b> N/A</p>
Structural Modifications	Information not provided.
Structural Analysis	Information not provided.
Other Electrical Service: Retrofit of existing electrical service for WCIU Auxiliary Transmitter	Information not provided.

UHF - Liquid Cooled Solid  
State Transmitter 8.2 - 13  
kW

**Component Description:** WCIU Auxiliary  
Transmitter  
Downpayment  
**Amount:** \$68,835.25

**Component Description:** WCIU Auxiliary  
Transmitter  
Shipping  
**Amount:** \$8,500.00

**Component Description:** WCIU Auxiliary  
Transmitter Final  
Payment  
**Amount:** \$223,714.56

**Component Description:** WCIU Auxiliary  
Transmitter Fittings  
**Amount:** \$378.77

**Component Description:** 50% Initial  
downpayment for  
WCIU Aux  
transmitter  
installation and  
proof  
**Amount:** N/A

**Component Description:** Initial 25% Down  
payment for the  
Aux transmitter.  
**Amount:** \$68,835.25

**Component Description:** Final Invoice  
WCIU Aux  
transmitter  
installation and  
proof  
**Amount:** N/A

## Cost Information

### Antennas

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-14JSC/VP-R CT170	\$241,876.54	\$214,016.64		\$247,182.54	
Test Transition	<i>\$0.00</i>	\$0.00	N/A	\$2,379.60	Please delete this category. This has been consolidated under the Primary Antenna.
State and City Taxes	<i>\$10,958.36</i>	\$10,958.36	N/A	\$10,958.36	WCIU Primary antenna sales tax
UHF - High Power, Side Mount, basic slot antenna, 503 kW input, directional,, elliptically or circularly polarized	<i>\$183,478.18</i>	\$183,478.18	The existing WCIU antenna was an elliptical antenna cut for channel 27 only. This was an equivalent antenna cut for channel 23.	\$183,478.18	N/A

Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$9,280.00	Please delete "WCIU Primary antenna sweep test downpayment" and "WCIU Primary antenna sweep test pre ship".
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$0.00	N/A	\$10,281.60	Please delete this category. This has been consolidated under the Primary Antenna.
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$13,180.10	See additional details provided in the WCIU Primary Antenna Side Mounts Rebuild Binder.	\$28,948.10	Please delete "WCIU Primary antenna side mounts downpayment" and "WCIU primary antenna side mounts pre ship". This has been consolidated under the Primary Antenna.
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	\$5,260.00	\$0.00	This was not necessary.	\$0.00	WCIU elected not to do this since the installation options were limited.

Rigid Transmission Line-Copper	\$0.00	\$0.00	N/A	\$1,856.70	Please delete this category. This has been consolidated under the Primary Antenna.
<b>Auxiliary Antenna PHP24C</b>	<b>\$90,930.00</b>	<b>\$74,042.86</b>		<b>\$0.00</b>	
New combiner, cost per channel (without antenna)	\$84,200.00	\$67,642.86	N/A	\$0.00	Original estimated costs were provided to tenants by Willis Tower. Actual costs have slightly exceeded the estimated costs. In addition, the estimates did not include taxes.
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$332,806.54</b>	<b>\$288,059.50</b>	<b>N/A</b>	<b>\$247,182.54</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$4,708,099.73</b>	<b>\$3,111,374.43</b>	<b>N/A</b>	<b>\$2,113,279.30</b>	<b>N/A</b>

## Components

**Actual Information**  
**Description**

**File Name**

Test Transition	<table> <tr> <td data-bbox="715 174 1023 248"><b>Component Description:</b> <b>Amount:</b></td><td data-bbox="1155 174 1362 248">Deleted N/A</td></tr> <tr> <td data-bbox="715 353 1023 506"><b>Component Description:</b> <b>Amount:</b></td><td data-bbox="1155 353 1362 506">WCIU Primary antenna test transition pre ship \$1,189.80</td></tr> <tr> <td data-bbox="715 611 1023 808"><b>Component Description:</b> <b>Amount:</b></td><td data-bbox="1155 611 1362 808">WCIU Primary antenna test transition downpayment \$1,189.80</td></tr> </table>	<b>Component Description:</b> <b>Amount:</b>	Deleted N/A	<b>Component Description:</b> <b>Amount:</b>	WCIU Primary antenna test transition pre ship \$1,189.80	<b>Component Description:</b> <b>Amount:</b>	WCIU Primary antenna test transition downpayment \$1,189.80
<b>Component Description:</b> <b>Amount:</b>	Deleted N/A						
<b>Component Description:</b> <b>Amount:</b>	WCIU Primary antenna test transition pre ship \$1,189.80						
<b>Component Description:</b> <b>Amount:</b>	WCIU Primary antenna test transition downpayment \$1,189.80						
State and City Taxes	<table> <tr> <td data-bbox="715 940 1023 1097"><b>Component Description:</b> <b>Amount:</b></td><td data-bbox="1155 940 1362 1097">WCIU Main antenna mounts- Sales Tax invoice \$1,095.00</td></tr> <tr> <td data-bbox="715 1202 1023 1357"><b>Component Description:</b> <b>Amount:</b></td><td data-bbox="1155 1202 1362 1357">WCIU Main antenna Sales tax Invoice \$10,958.36</td></tr> <tr> <td data-bbox="715 1462 1023 1733"><b>Component Description:</b> <b>Amount:</b></td><td data-bbox="1155 1462 1362 1733">Sales Tax for WCIU Primary antenna and VPOL, Elbow Complex, and Test Transition. \$10,958.36</td></tr> </table>	<b>Component Description:</b> <b>Amount:</b>	WCIU Main antenna mounts- Sales Tax invoice \$1,095.00	<b>Component Description:</b> <b>Amount:</b>	WCIU Main antenna Sales tax Invoice \$10,958.36	<b>Component Description:</b> <b>Amount:</b>	Sales Tax for WCIU Primary antenna and VPOL, Elbow Complex, and Test Transition. \$10,958.36
<b>Component Description:</b> <b>Amount:</b>	WCIU Main antenna mounts- Sales Tax invoice \$1,095.00						
<b>Component Description:</b> <b>Amount:</b>	WCIU Main antenna Sales tax Invoice \$10,958.36						
<b>Component Description:</b> <b>Amount:</b>	Sales Tax for WCIU Primary antenna and VPOL, Elbow Complex, and Test Transition. \$10,958.36						
UHF - High Power, Side Mount, basic slot antenna, 503 kW input, directional,, elliptically or circularly polarized	<table> <tr> <td data-bbox="715 1870 1023 2067"><b>Component Description:</b> <b>Amount:</b></td><td data-bbox="1155 1870 1362 2067">WCIU Primary antenna transformer and tuner Sales Tax \$519.96</td></tr> </table>	<b>Component Description:</b> <b>Amount:</b>	WCIU Primary antenna transformer and tuner Sales Tax \$519.96				
<b>Component Description:</b> <b>Amount:</b>	WCIU Primary antenna transformer and tuner Sales Tax \$519.96						

<b>Component Description:</b>	WCIU Primary Antenna Transformer and Tuner
<b>Amount:</b>	\$5,220.95

<b>Component Description:</b>	WCIU Primary Antenna Downpayment
<b>Amount:</b>	\$82,138.95

<b>Component Description:</b>	Deleted
<b>Amount:</b>	N/A

<b>Component Description:</b>	WCIU Primary antenna cut line section sales tax
<b>Amount:</b>	\$128.94

<b>Component Description:</b>	WCIU Primary antenna cut line section
<b>Amount:</b>	\$2,063.00

<b>Component Description:</b>	WCIU Primary antenna sales tax
<b>Amount:</b>	\$10,958.36

<b>Component Description:</b>	WCIU Primary Antenna Pre-Ship
<b>Amount:</b>	\$82,138.95

<b>Component Description:</b>	WCIU Main antenna mounts
<b>Amount:</b>	\$12,085.10

	<b>Component Description:</b> WCIU Primary antenna cut line section shipping <b>Amount:</b> \$309.07
Sweep test of existing antenna	<b>Component Description:</b> WCIU Primary antenna sweep test downpayment <b>Amount:</b> \$2,880.00  <b>Component Description:</b> WCIU Primary antenna sweep test pre ship <b>Amount:</b> \$2,880.00  <b>Component Description:</b> WCIU Primary antenna system sweep <b>Amount:</b> \$6,400.00  <b>Component Description:</b> Deleted <b>Amount:</b> N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	<b>Component Description:</b> Deleted <b>Amount:</b> N/A  <b>Component Description:</b> WCIU Primary antenna elbow complex downpayment <b>Amount:</b> \$5,140.80  <b>Component Description:</b> WCIU Primary antenna elbow complex pre ship <b>Amount:</b> \$5,140.80



Side mount brackets for high power antennas (if not included in antenna base cost)	<div> <b>Component Description:</b> Deleted</div> <div> <b>Amount:</b> N/A</div>
	<div> <b>Component Description:</b> WCIU Primary antenna side mount rebuild Sales Tax</div> <div> <b>Amount:</b> \$1,095.00</div>
	<div> <b>Component Description:</b> WCIU Primary antenna side mounts pre ship</div> <div> <b>Amount:</b> \$7,884.00</div>
	<div> <b>Component Description:</b> WCIU Primary antenna side mounts rebuild</div> <div> <b>Amount:</b> \$12,085.10</div>
	<div> <b>Component Description:</b> WCIU Primary antenna side mounts downpayment</div> <div> <b>Amount:</b> \$7,884.00</div>
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.

Rigid Transmission Line-Copper	<b>Component Description:</b>	WCIU Primary antenna rigid line pre ship
	<b>Amount:</b>	\$928.35
	<b>Component Description:</b>	WCIU Primary antenna rigid line downpayment
	<b>Amount:</b>	\$928.35
	<b>Component Description:</b>	Deleted
	<b>Amount:</b>	N/A
New combiner, cost per channel (without antenna)	<b>Component Description:</b>	Willis Tower WCIU Aux antenna combiner Invoice
	<b>Amount:</b>	\$13,316.67
	<b>Component Description:</b>	Willis Tower WCIU Aux antenna combiner-taxes Invoice
	<b>Amount:</b>	\$2,387.20
	<b>Component Description:</b>	Willis Tower WCIU Aux Channel combiner Invoice
	<b>Amount:</b>	\$50,852.90
Sweep test of existing antenna	Information not provided.	

Cost  
Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	\$0.00	\$0.00		\$0.00	
Auxiliary Transmission Line	\$8,000.00	\$8,000.00		\$5,847.85	
Willis AUX Antenna	<i>\$8,000.00</i>	\$8,000.00	Due to the relocation of the Willis Tower AUX antenna combiner room, WCIU is required to extend the existing 5" flex line 80' from the old combiner room to the new combiner room. (80'x\$100 /ft)	\$5,847.85	N/A
Sub-total	\$8,000.00	\$8,000.00	N/A	\$5,847.85	N/A
Total for all systems	\$4,708,099.73	\$3,111,374.43	N/A	\$2,113,279.30	N/A

Components

Actual Information Description	File Name
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Willis AUX Antenna

**Component Description:**

WCIU Aux line  
shipping invoice

**Amount:**

\$1,887.85

**Component Description:**

WCIU Aux line  
invoice

**Amount:**

\$3,960.00

**Component Description:**

Willis Tower  
WCIU AUX  
antenna  
connections  
Invoice

**Amount:**

\$150.00

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## Cost Information

### Tower Equipment and Rigging Costs

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
<b>Auxiliary Tower BMAST</b>	<b>\$791,600.00</b>	<b>\$325,001.33</b>		<b>\$0.00</b>	
Tower Helicopter Lift	<i>\$200,000.00</i>	\$200,000.00	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$600,000 for the NE Decommission Lift of the EAST Tower AUX antenna. WCIU's portion, \$200,000.	N/A	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$75,000.00	N/A	N/A	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$33,333.33	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$200,000 for the East Pole Decommission Prep Work of the EAST Tower AUX antenna. WCIU's portion, \$33,333.33.	N/A	N/A

Structural engineering tower load study for well documented tower	\$12,600.00	\$16,668.00	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$100,000 for the East Pole Decommissioning of the EAST Tower AUX antenna. WCIU's portion, \$16,666.67	\$0.00	N/A
<b>Primary Tower BTWR</b>	<b>\$605,300.00</b>	<b>\$172,500.00</b>		<b>\$0.00</b>	
Minor tower reinforcement /modifications	\$158,000.00	\$75,000.00	N/A	N/A	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$12,500.00	N/A	\$0.00	The original estimate was provided by tenant Willis Tower. Actual costs have slightly exceeded the estimate due to unforeseen structural requirements by the City of Chicago.
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$85,000.00	N/A	\$0.00	N/A

<b>Sub-total</b>	\$1,396,900.00	\$497,501.33	N/A	\$0.00	N/
<b>Total for all systems</b>	\$4,708,099.73	\$3,111,374.43	N/A	\$2,113,279.30	N/

## Components

<b>Actual Information</b>	
<b>Description</b>	<b>File Name</b>
Tower Helicopter Lift	Information not provided.
Minor tower reinforcement /modifications	Information not provided.
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Information not provided.
Structural engineering tower load study for well documented tower	<div> <b>Component Description:</b> Willis Tower Aux antenna Structural related costs Invoice  <b>Amount:</b> \$1,779.17 </div>
Minor tower reinforcement /modifications	Information not provided.
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	<div> <b>Component Description:</b> Willis Tower WCIU Main tower documentation for antenna Invoice  <b>Amount:</b> \$2,500.00 </div> <div> <b>Component Description:</b> Willis Tower WCIU Main antenna structural and inspections Invoice  <b>Amount:</b> \$16,822.99 </div>

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)		
	<b>Component Description:</b>	Willis Tower Main tower antenna demo and preparation Invoice
	<b>Amount:</b>	\$32,520.58
	<b>Component Description:</b>	Willis Tower WCIU Main antenna installation Invoice
	<b>Amount:</b>	\$58.50



Cost  
Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$48,545.00	\$40,645.00		\$0.00	
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$4,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,210.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	N/A	N/A

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	\$0.00	WCIU was able to coordinate with other broadcasters without accruing any additional costs.
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$7,360.00	\$3,500.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	\$4,100.00	\$1,500.00	N/A	N/A	N/A

RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	\$1,580.00	\$1,580.00	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	\$2,105.00	N/A	N/A	N/A
<b>Sub-total</b>	\$48,545.00	\$40,645.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$4,708,099.73	\$3,111,374.43	N/A	\$2,113,279.30	N/A

## Components

Information not provided.

**Cost  
Information**

**Other Expenses**

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 Justification
<b>Other Expenses</b>	<b>\$216,293.80</b>	<b>\$215,728.80</b>		<b>\$31,829.10</b>	
Transmission Line Removal	<i><b>\$41,666.67</b></i>	\$41,666.67	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$250,000 for the Transmission Line Removal of the EAST Tower AUX antenna. WCIU's portion, \$41,666.67.	N/A	N/A
Transmitter Room Repairs	<i><b>\$2,690.00</b></i>	\$2,690.00	Repairs of drywall, painting, and floors due to the removal of the existing transmitters and retrofitting for the new transmitters	\$2,690.00	N/A
Combiner Room Construction	<i><b>\$12,857.14</b></i>	\$12,857.14	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$90,000 for the Combiner Room Construction of the EAST Tower AUX antenna. WCIU's portion, \$12,857.14.	N/A	N/A

Outside Project Management	<b>\$15,833.33</b>	\$15,833.33	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$95,000 for the Outside Project Management of the EAST Tower AUX antenna. WCIU's portion, \$15,833.33.	\$0.00	N
RF Safety Coordination	<b>\$16,666.67</b>	\$16,666.67	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$100,000 for the RF Safety Coordination of the EAST Tower AUX antenna. WCIU's portion, \$16,666.67.	N/A	N
Transmission Line Installation	<b>\$20,833.33</b>	\$20,833.33	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$125,000 for the Transmission Line Installation of the EAST Tower AUX antenna. WCIU's portion, \$20,833.33	N/A	N
Equipment Storage	<b>\$333.33</b>	\$333.33	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$2,000 for the Equipment Storage of the EAST Tower AUX antenna. WCIU's portion, \$333.33.	N/A	N

East Pole Material Disposal	<b>\$13,333.33</b>	\$13,333.33	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$80,000 for the East Pole Material Disposal of the EAST Tower AUX antenna. WCIU's portion, \$13,333.33	N/A	N
Equipment Delivery and Handling Charges	<b>\$2,500.00</b>	\$2,500.00	Willis Tower loading dock after hours fees.	N/A	N
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	\$5,250.00	N
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N
Disposal Costs (for equipment and other waste, net of any salvage value)	<b>\$50,000.00</b>	\$50,000.00	Removal of WCIU IOT transmitter cabinets, beam supplies, RF System, cooling system, electrical system. See attachments "MSG4442226_2020, 0310 Exclusive Construction Proposal"	\$23,889.10	N
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N

MVPD Notification of Channel Change	<b>\$2,500.00</b>	\$2,500.00	Notification to all MVPD regarding channel changes.	\$0.00	WCII abl coord w MV with acc a addi cc
Cylinder Entry Port Resoration	<b>\$25,000.00</b>	\$25,000.00	See attached Willis Tower Budget Overview for EAST Tower RFS Systems. Willis Tower estimates \$150,000 for the Cylinder Entry Port Restoration of the EAST Tower AUX antenna. WCIU's portion, \$25,000.	N/A	N
<b>Sub-total</b>	\$216,293.80	\$215,728.80	N/A	\$31,829.10	N
<b>Total for all systems</b>	\$4,708,099.73	\$3,111,374.43	N/A	\$2,113,279.30	N

## Components

Actual Information	
Description	File Name
Transmission Line Removal	Information not provided.
Transmitter Room Repairs	<p><b>Component Description:</b> WCIU Transmitter room repairs, flooring and epoxy</p> <p><b>Amount:</b> \$2,690.00</p>
Combiner Room Construction	Information not provided.

Outside Project Management		
	<b>Component Description:</b>	Willis Tower Consultant Fees related to the building project Invoice
	<b>Amount:</b>	\$154.90
	<b>Component Description:</b>	Willis Tower Consultant Fees related to the building project Invoice
	<b>Amount:</b>	\$1,634.46
RF Safety Coordination	Information not provided.	
Transmission Line Installation	Information not provided.	
Equipment Storage	Information not provided.	
East Pole Material Disposal	Information not provided.	
Equipment Delivery and Handling Charges	Information not provided.	
DTV Medical Facility Notification	<b>Component Description:</b>	WCIU Medical Notifications invoice
	<b>Amount:</b>	\$5,250.00
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	



<p>Disposal Costs (for equipment and other waste, net of any salvage value)</p>	<table> <tr> <td data-bbox="719 174 1027 208"><b>Component Description:</b></td><td data-bbox="1161 174 1374 483">Removal of glycol from WCIU pre-repack transmitters and excess anti-freeze from WCIU post-repack transmitters.</td></tr> <tr> <td data-bbox="719 495 831 528"><b>Amount:</b></td><td data-bbox="1161 495 1278 528">\$4,074.91</td></tr> <tr> <td data-bbox="719 633 1027 667"><b>Component Description:</b></td><td data-bbox="1161 633 1374 824">Removal of WCIU transmitters pre-repack transmitter barrels used for containing glycol.</td></tr> <tr> <td data-bbox="719 835 831 869"><b>Amount:</b></td><td data-bbox="1161 835 1262 869">\$914.19</td></tr> <tr> <td data-bbox="719 974 1027 1008"><b>Component Description:</b></td><td data-bbox="1161 974 1374 1081">WCIU Pre-Repack Main transmitter demo invoice.</td></tr> <tr> <td data-bbox="719 1093 831 1126"><b>Amount:</b></td><td data-bbox="1161 1093 1294 1126">\$18,900.00</td></tr> </table>	<b>Component Description:</b>	Removal of glycol from WCIU pre-repack transmitters and excess anti-freeze from WCIU post-repack transmitters.	<b>Amount:</b>	\$4,074.91	<b>Component Description:</b>	Removal of WCIU transmitters pre-repack transmitter barrels used for containing glycol.	<b>Amount:</b>	\$914.19	<b>Component Description:</b>	WCIU Pre-Repack Main transmitter demo invoice.	<b>Amount:</b>	\$18,900.00
<b>Component Description:</b>	Removal of glycol from WCIU pre-repack transmitters and excess anti-freeze from WCIU post-repack transmitters.												
<b>Amount:</b>	\$4,074.91												
<b>Component Description:</b>	Removal of WCIU transmitters pre-repack transmitter barrels used for containing glycol.												
<b>Amount:</b>	\$914.19												
<b>Component Description:</b>	WCIU Pre-Repack Main transmitter demo invoice.												
<b>Amount:</b>	\$18,900.00												
<p>FCC Filing Fees - Special Temporary Authorization request</p>	<p>Information not provided.</p>												
<p>MVPD Notification of Channel Change</p>	<p>Information not provided.</p>												
<p>Cylinder Entry Port Resoration</p>	<p>Information not provided.</p>												

**Cost  
Information**

**Grand Total**

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$4,708,099.73	\$3,111,374.43	\$2,113,279.30

**Reimbursement Status**

Question	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	<p>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.</p>	
		<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>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.</li> </ol>	

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).
5. 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.

<p>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.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Kyle Walker</b> <i>VP, Technology</i></p> <p>12/25/2020</p>

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 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 AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.</li> <li>3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> </ol>	

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.

<p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Kyle Walker</b> VP, <i>Technology</i></p> <p>12/25/2020</p>

## Attachments