Approved by OMB (Office of Management and Budget) 3060-1178

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: **37176** | Service: **DTV** | Call Sign: **WLTX** | Channel: **15 (UHF)**

File Number: **0000028040**

FRN: **0024376113** | Date Submitted: **09/09/2019**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
PACIFIC AND SOUTHERN, LLC	Denise Branson, Sr. Paralegal TEGNA, Inc. 8350 Broad Street, Suite 2000 Tysons, VA 22102 United States	+1 (703) 873-6606	dbranson@TEGNA.com	Limited Liability Company

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
Jeffrey Johnson *TEGNA*	Jeffrey Johnson 7950 Jones Branch Drive McLean, VA 22102 United States	+1 (703) 873-6736	repackreimbursement@tegna.com

Broadcaster Information and Transition Plan

Question	Response
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.	No
Briefly describe transition plan	WLTX must replace its primary antenna, transmission line and transmitter as a result of the repack. An interim facility must be built in order to operate station during the repack build-out and throughout the station's assigned phase.

Transmitters

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

Auxiliary Transmitter

Add Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Backup Transmitter
	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	CD3100P1
	Year	2001
	Type	Inductive Output Tube
	IOT Power Type	Single
	Power Capacity	25 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?	Yes
	Manufacturer	
	Model	ULXTE-40
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	25.3 kW
	Justification for New Transmitter	Existing AUX transmitter cannot be re-tuned per manufacturer. Parts are no longer available to re-tune. Existing AUX transmitter is capable of making full ERP; therefore, new ULXTE-40 AUX transmitter is reimbursable.

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	Yes
	Size	3 inches
	Length	100.0 feet
	Other Electrical Service	Yes
	Description	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	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?	Yes
	Size	100.0 square feet
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Auxiliary Transmitter

Other Transmitter Cost Not Listed

Name	Description
Installation and Proof	Required to verify transmitter performance on new channel
RF Accessories	Required for new channel as part of the RF system
Mask Filter System	See attached GatesAir quote

Primary Transmitter

Existing Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	CD3100P1
	Year	2001
	Type	Inductive Output Tube
	IOT Power Type	Single
	Power Capacity	25 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	ULXTE-40
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	25.3 kW
	Justification for New Transmitter	Old transmitter cannot be re-tuned per manufacturer. Parts are no longer available to re-tune. Reimbursable TPO is 20.9 kW based on initial 90-day filing CP. This would require a ULXTE-40.

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	Yes
	Size	3 inches
	Length	100.0 feet
	Other Electrical Service	Yes
	Description	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Heating and Cooling
	Size	5 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	Yes
	Size	100.0 square feet
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

Other Transmitter Cost Not Listed

Name	Description

Installation and Proof	Required to verify transmitter performance on new channel
Mask Filter System	Required for new channel as part of the RF system
RF Accessories	Required for new channel as part of the RF system

Antennas

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

Primary Antenna

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	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)	1000.0 kW

Manufacturer	
Model	TFU-26DSC-R
Year	2001

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?	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
	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)	951.0 kW
	Manufacturer	

Model	TFU-28ETT-R S260
Year	2019
Justification for New Antenna	Station's licensed horizontally polarized, top-mount, main antenna cannot be re-tuned and must be replaced for new channel assignment.

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	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
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	7 3/16 inches inches

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

Primary Antenna

Other Antenna Cost Not Listed

Name	Description
Hanger Vert Spring	Hanger Vert Spring
Tower Top Adapter	Tower Top Adapter
New Top Plate	Existing top-plate and/or bolt pattern may not work for new top-mount antenna
Reducer	Reducer
Shipping	$9,800

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Broadband Slot
	Number of Stations Supported	1
	Number of Panels/Bays	24
	Lower Limit	488.00 MHz
	Upper Limit	494.00 MHz
	Design power capacity in use	100.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW
	Manufacturer	
	Model	TFU-24WB-R S230 OS
	Year	2018

	Justification for New Antenna	An interim antenna is necessary to keep station on air during primary antenna replacement & for duration of assigned phase. An interim antenna with a custom skull pattern is required to replicate existing coverage.

Interim Antenna

Other Antenna Costs

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	B
	Feed Line Size	6 1/8 inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim Antenna

Other Antenna Cost Not Listed

Name	Description
Shipping	$6,800

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	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1700 feet per run

Primary Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1700 feet per run
	Justification for New Transmission Line	Current Line will not work on new channel assignment.

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
TX Line Sweep	Sweep required to verify post-transition channel measures well on existing line.

Interim Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	Rigid
	Diameter	6 1/8 inches
	Segment Length	Broadband
	Other Segment Length	
	Number of parallel runs	1
	Length	1630 feet per run
	Justification for New Transmission Line	Line necessary for interim facility while new primary antenna and line are installed and throughout duration of assigned phase.

Interim Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
TX Line Sweep	Sweep required to verify post-transition channel measures well on new line.

Tower Equipment And Rigging Costs

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

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	Owned
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	No
	One or more FM, AM or TV radio broadcaster(s)	N/A
	Others Types of Users	N/A
	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	1044489
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	34° 05' 50.0" N-
	Longitude (NAD83)	080° 45' 50.0" W-
	Overall Structure Height	1706.67 feet
	Support Structure Height	1637.78 feet
	Ground Elevation Above Mean Sea Level (AMSL)	342.19 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Pacific and Southern, LLC
Date Constructed	05/24/1985

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:	Major Reinforcements needed

Primary Tower

Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	N/A
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
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	852
	Explanation	Fewer PM tasks are needed & OES & 399 work are needed, so the PM total has been reduced to $150x852hrs ($127800), a new OES component has been created & funded with part of the $ removed from PM,& "Prepare & or review reimbursement form" has been increased
Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2

	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
Attorney and Other Outside Consulting Services	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
RF Field Engineering Services	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	Yes
	Number of Days	20

	Justification	$5,400 per site visit including expenses x 20 days. It is necessary to survey the site, plan the equipment, develop specifications for purchasing, & oversee multiple vendor RF projects. Station does not have available personnel trained in such services.

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Other Legal Services	Other Legal Services related to the DTV Repack
Pre filing site review	outside engineering firm to review all sites
Other Engineering Services	Other Engineering Services related to the DTV Repack

Other Expenses

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

Other Expenses

Other Expenses Not Listed

Name	Description
Internal labor	Local and Corporate Labor

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 ULXTE-40	**$1,188,597.08**	**$983,323.62**		**$479,080.17**	
RF Accessories	***$60,395.57***	$60,395.57	See attached GatesAir quote	$30,197.79	N/A
Mask Filter System	***$37,721.03***	$37,721.03	See attached GatesAir quote	$18,860.52	N/A
Installation and Proof	***$58,543.75***	$58,543.75	See attached GatesAir quote	$29,271.86	N/A
Other -- Building Addition Size: 100.0	***$25,000.00***	$25,000.00	New pad required for heat exchangers, transformers, pumps, etc. Equipment must also be shielded.	N/A	N/A

Other -- HVAC Service Type: H Size: 5 (Other)	***$25,000.00***	$25,000.00	Additional HVAC required for operation of new air-cooled solid-state transmitter while still operating with main transmitter during testing period.	N/A	N/A
Other Electrical Service: Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	***$29,736.73***	$29,736.73	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc. See attached quotes and invoices.	$29,736.73	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc. See attached quotes and invoices.

UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	$947,000.00	$742,026.54	See attached GatesAir quote and comparable MSDC IOT quote from Comark. The quotes demonstrate that the proposed solid state upgrade would be $60,561.46 cheaper than a 1-tube MSDC.	$371,013.27	N/A
3" Rigid Conduit and Wiring (Cost per foot)	$5,200.00	$4,900.00	N/A	N/A	N/A
Auxiliary Transmitter ULXTE-40	**$1,158,860.35**	**$953,586.89**		**$453,850.17**	
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	$947,000.00	$742,026.54	See attached GatesAir quote	$371,013.27	N/A
3" Rigid Conduit and Wiring (Cost per foot)	$5,200.00	$4,900.00	N/A	N/A	N/A

Other Electrical Service: Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	***$25,000.00***	$25,000.00	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	$4,506.73	N/A
Other -- Building Addition Size: 100.0	***$25,000.00***	$25,000.00	New pad required for heat exchangers, transformers, pumps, etc. Equipment must also be shielded.	N/A	N/A
Installation and Proof	***$58,543.75***	$58,543.75	See attached GatesAir quote	$29,271.86	N/A
RF Accessories	***$60,395.57***	$60,395.57	See attached GatesAir quote	$30,197.79	N/A
Mask Filter System	***$37,721.03***	$37,721.03	See attached GatesAir quote	$18,860.52	N/A
Sub-total	$2,347,457.43	$1,936,910.51	N/A	$932,930.34	N/A
Total for all systems	$5,070,574.53	$4,223,896.36	N/A	$2,032,557.19	N/A

Components

Actual Information Description	File Name

RF Accessories	**Component Description:**	Gates inv #JW30004445-1A Primary TX RF Accessories pmt 2 UL20190319jgv1
	Amount:	$10,065.93
	Component Description:	Inv JW30004445-1 WLTX Primary TX RF Accessories 1 3rd dp UL20180719jg v1
	Amount:	$20,131.86
Mask Filter System	**Component Description:**	Gates inv #JW30004445-1A Primary TX Mask Filter pmt 2 UL20190319jgv1
	Amount:	$6,286.84
	Component Description:	Inv JW30004445-1 WLTX Primary TX Mask Filter 1 3rd dp UL20180719jg v1
	Amount:	$12,573.68

Installation and Proof	**Component Description:** **Amount:**	Gates inv #JW30004445-1A Primary TX Install pmt 2 UL20190319jgv1 $9,757.29
	Component Description: **Amount:**	Inv JW30004445-1 WLTX Primary TX Install 1 3rd dp UL20180719jg v1 $19,514.57
Other -- Building Addition Size: 100.0	Information not provided.	
Other -- HVAC Service Type: H Size:5 (Other)	Information not provided.	
Other Electrical Service: Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	**Component Description:** **Amount:**	A and P 0106807 v190619jgv1 $25,230.00
	Component Description: **Amount:**	Inv JW30004445-1 WLTX Primary TX Electrical 1 3rd dp UL20180719jg v1 $3,004.49
	Component Description: **Amount:**	Gates inv #JW30004445-1A Primary TX Electrical pmt 2 UL20190319jgv1 $1,502.24

UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	**Component Description:** **Amount:** **Component Description:** **Amount:**	Gates inv #JW30004445-1A Primary Transmitter pmt 2 UL20190319jgv1 $123,671.09 Inv JW30004445-1 WLTX Primary Transmitter 1 3rd dp UL20180719jg v1 $247,342.18
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	**Component Description:** **Amount:** **Component Description:** **Amount:**	Inv JW30004446-1 WLTX Aux Transmitter 1 3rd dp UL20180719jg v1 $247,342.18 Gates inv #JW30004446-1A Aux Transmitter pmt 2 UL20190319jgv1 $123,671.09
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	

Other Electrical Service: Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	**Component Description:** **Amount:**	Gates inv #JW30004446-1A Aux TX Electrical pmt 2 UL20190319jgv1 $1,502.24
	Component Description: **Amount:**	Inv JW30004446-1 WLTX Aux TX Electrical 1 3rd dp UL20180719jg v1 $3,004.49
Other -- Building Addition Size: 100.0	Information not provided.	
Installation and Proof	**Component Description:** **Amount:**	Inv JW30004446-1 WLTX Aux TX Install 1 3rd dp UL20180719jg v1 $19,514.57
	Component Description: **Amount:**	Gates inv #JW30004446-1A Aux TX Install pmt 2 UL20190319jgv1 $9,757.29

RF Accessories	**Component Description:**	Gates inv #JW30004446-1A Aux TX RF Accessories pmt 2 UL20190319jgv1
	Amount:	$10,065.93
	Component Description:	Inv JW30004446-1 WLTX Aux TX RF Accessories 1 3rd dp UL20180719jg v1
	Amount:	$20,131.86
Mask Filter System	**Component Description:**	Gates inv #JW30004446-1A Aux TX Mask Filter pmt 2 UL20190319jgv1
	Amount:	$6,286.84
	Component Description:	Inv JW30004446-1 WLTX Aux TX Mask Filter 1 3rd dp UL20180719jg v1
	Amount:	$12,573.68

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
Interim Antenna TFU-24WB-R S230 OS	**$308,160.35**	**$305,720.35**		**$161,663.00**	
Shipping	***$6,800.00***	$6,800.00	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 1000 kW input, directional,, horizontally polarized	***$252,520.35***	$252,520.35	N/A	$150,450.00	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	Per other Dielectric quotes	$0.00	N/A
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	$13,700.00	$13,000.00	N/A	$0.00	N/A

Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$22,000.00	Per Widelity estimate	$11,213.00	N/A
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	$5,260.00	$5,000.00	Per Widelity estimate	N/A	N/A
Primary Antenna TFU-28ETT-R S260	**$364,999.75**	**$303,442.50**		**$279,286.50**	
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	$13,900.00	$12,849.75	Per Dielectric quote	$11,655.00	N/A
Shipping	***$6,400.00***	$6,400.00	N/A	N/A	N/A
Reducer	***$2,100.00***	$2,100.00	N/A	$2,100.00	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	Per Dielectric estimate	$5,760.00	N/A

New Top Plate	***$25,000.00***	$25,000.00	Existing top-plate and/or bolt pattern may not work for new top-mount antenna	$9,078.75	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	$289,500.00	$229,323.00	N/A	$229,323.00	N/A
Tower Top Adapter	***$20,175.00***	$20,175.00	N/A	$20,175.00	N/A
Hanger Vert Spring	***$1,194.75***	$1,194.75	N/A	$1,194.75	N/A
Sub-total	$673,160.10	$609,162.85	N/A	$440,949.50	N/A
Total for all systems	$5,070,574.53	$4,223,896.36	N/A	$2,032,557.19	N/A

Components

Actual Information Description	File Name
Shipping	Information not provided.

UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 1000 kW input, directional,, horizontally polarized	**Component Description:** **Amount:**	Die 491038 Aux ant pmt 3 v190610jgv1 $15,045.00
	Component Description: **Amount:**	Die inv #MAN00844 Aux ant pmt 1 UL20190226jgv1 $67,702.50
	Component Description: **Amount:**	Die MAN01086 v190502jgv1 $67,702.50
Sweep test of existing antenna	Information not provided.	
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.	
Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:** **Amount:**	Die inv #MAN00844 Aux ant mt brackets pmt 1 UL20190226jgv1 $5,045.85
	Component Description: **Amount:**	Die MAN01086 v190502jgv1 $5,045.85
	Component Description: **Amount:**	Die 491038 Aux ant mt brackets pmt 3 v190610jgv1 $1,121.30

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 7 3/16. feedline (if needed)	**Component Description:** Die MAN01200 v190716pmv1 **Amount:** $4,819.50 **Component Description:** Die MAN01200 v190716pmv1 **Amount:** $945.00 **Component Description:** Die 568001 v190909pmv2 **Amount:** $2,265.75 **Component Description:** Die 568001 v190819pmv1 **Amount:** N/A **Component Description:** Die MAN00948 v190503jgv1 **Amount:** $3,624.75
Shipping	Information not provided.
Reducer	**Component Description:** Die 568001 v190909pmv2 **Amount:** $2,100.00 **Component Description:** Die 568001 v190819pmv1 **Amount:** N/A

Sweep test of existing antenna	**Component Description:** **Amount:**	Die MAN01200 v190716pmv1 $2,880.00
	Component Description: **Amount:**	Die MAN00948 v190503jgv1 $2,880.00
New Top Plate	**Component Description:** **Amount:**	Die MAN01200 v190716pmv1 $9,078.75
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	**Component Description:** **Amount:**	Die MAN01200 v190716pmv1 $102,070.35
	Component Description: **Amount:**	Die 568001 v190909pmv2 $25,182.30
	Component Description: **Amount:**	Die MAN00948 v190503jgv1 $102,070.35
	Component Description: **Amount:**	Die 568001 v190819pmv1 N/A

Tower Top Adapter	**Component Description:** **Amount:**	Die 568001 v190909pmv2 $20,175.00
	Component Description: **Amount:**	Die 568001 v190819pmv1 N/A
Hanger Vert Spring	**Component Description:** **Amount:**	Die 568001 v190909pmv2 $1,194.75
	Component Description: **Amount:**	Die 568001 v190819pmv1 N/A

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
Interim Transmission Line	**$384,560.00**	**$249,992.00**		**$244,034.60**	
Rigid Transmission Line - copper, 6 1 /8" broadband	$378,160.00	$243,592.00	N/A	$237,634.60	N/A
TX Line Sweep	*$6,400.00*	$6,400.00	N/A	$6,400.00	N/A
Primary Transmission Line	**$499,400.00**	**$302,305.00**		**$288,875.25**	
Rigid Transmission Line - copper, 7 3 /16"	$493,000.00	$295,905.00	Per Dielectric quote	$288,875.25	N/A
TX Line Sweep	*$6,400.00*	$6,400.00	N/A	N/A	N/A
Sub-total	$883,960.00	$552,297.00	N/A	$532,909.85	N/A
Total for all systems	$5,070,574.53	$4,223,896.36	N/A	$2,032,557.19	N/A

Components

Actual Information Description	File Name

Rigid Transmission Line - copper, 6 1/8" broadband	**Component Description:**	Die 491038 Aux ant TLSCRs pmt 3 v190610jgv1
	Amount:	$812.00
	Component Description:	Die 491038 Aux line pmt 3 v190610jgv1
	Amount:	$22,951.46
	Component Description:	Die MAN01086 v190502jgv1
	Amount:	$3,654.00
	Component Description:	Die MAN01086 v190502jgv1
	Amount:	$103,281.57
	Component Description:	Die inv #MAN00844 Aux line pmt 1 UL20190226jgv1
	Amount:	$103,281.57
	Component Description:	Die inv #MAN00844 Aux ant TLSCRs pmt 1 UL20190226jgv1
	Amount:	$3,654.00

TX Line Sweep	**Component Description:**	Die inv #MAN00844 Aux ant sweep pmt 1 UL20190226jgv1
	Amount:	$2,880.00
	Component Description:	Die MAN01086 v190502jgv1
	Amount:	$2,880.00
	Component Description:	Die 491038 Aux ant sweep pmt 3 v190610jgv1
	Amount:	$640.00

Rigid Transmission Line - copper, 7 3/16"	**Component Description:** Die MAN01200 v190716pmv1 **Amount:** $127,808.21 **Component Description:** Die MAN01200 v190716pmv1 **Amount:** $3,017.25 **Component Description:** Die 568001 v190909pmv2 **Amount:** $27,224.33 **Component Description:** Die 568001 v190819pmv1 **Amount:** N/A **Component Description:** Die MAN00948 v190503jgv1 **Amount:** $127,808.21 **Component Description:** Die MAN00948 v190503jgv1 **Amount:** $3,017.25
TX Line Sweep	Information not provided.

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
Primary Tower TOWER	**$657,800.00**	**$625,000.00**		**$94,040.00**	
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	$26,300.00	$25,000.00	N/A	$7,400.00	N/A
Tall Tower (greater than 500')	$210,500.00	$200,000.00	Per Widelity estimate	N/A	N/A
Major tower reinforcement /modifications	$421,000.00	$400,000.00	N/A	$86,640.00	N/A
Sub-total	$657,800.00	$625,000.00	N/A	$94,040.00	N/A
Total for all systems	$5,070,574.53	$4,223,896.36	N/A	$2,032,557.19	N/A

Components

Actual Information Description	File Name	
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	**Component Description:** **Amount:**	Turris inv #TE-6589 Structural Analysis UL20190402jgv1 $7,400.00

Tall Tower (greater than 500')	Information not provided.	
Major tower reinforcement /modifications	**Component Description:** **Amount:**	Turris TE-6763 v190619jgv1 $86,640.00

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 Co Justificat
Outside Professional Services	**$370,316.00**	**$363,250.00**		**$28,457.50**	
Other Engineering Services	***$10,800.00***	$10,800.00	Fewer PM tasks are needed & OES & 399 work are needed, so the PM total has been reduced to $150x852hrs ($127800), a new OES component has been created & funded with part of the $ removed from PM,& "Prepare & or review reimbursement form" has been increased	N/A	N/A
Pre filing site review	***$19,000.00***	$19,000.00	N/A	N/A	N/A
Other Legal Services	***$10,000.00***	$10,000.00	Other Legal Services related to the DTV Repack	$424.09	N/A

Additional Field Engineering Service, 20 Days	***$50,000.00***	$50,000.00	$5,400 per site visit including expenses x 20 days. It is necessary to survey the site, plan the equipment, develop specifications for purchasing, & oversee multiple vendor RF projects. Station does not have available personnel trained in such services.	N/A	N/A
RF Exposure Measurements	$21,050.00	$20,000.00	Per widelity estimate.	N/A	N/A
Comprehensive coverage verification via field study, if needed	$84,200.00	$80,000.00	Per Widelity estimate	N/A	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	$2,105.00	$2,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	$2,105.00	$2,000.00	N/A	N/A	N/A

Attorney Fees - Prepare and File request for Special Temporary Authorization	$7,360.00	$3,500.00	Per Widelity estimates	N/A	N/A
Project management of the transition	$134,616.00	$127,800.00	Fewer PM tasks are needed & OES & 399 work are needed, so the PM total has been reduced to $150x852hrs ($127800), a new OES component has been created & funded with part of the $ removed from PM,& "Prepare & or review reimbursement form" has been increased	$26,465.91	N/A

Prepare and or review reimbursement form	$2,630.00	$13,900.00	Fewer PM tasks are needed & OES & 399 work are needed, so the PM total has been reduced to $150x852hrs ($127800), a new OES component has been created & funded with part of the $ removed from PM,& "Prepare & or review reimbursement form" has been increased	$1,567.50	N/A
Address transition timing and coordination issues w/ other stations and wireless	$2,630.00	$2,500.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	Per Widelity estimate	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	Per Widelity estimate	N/A	N/A

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	$1,580.00	$1,500.00	Per Widelity estimate	N/A	N/A
Prepare request for Special Temporary Authorization	$4,100.00	$3,000.00	Per Widelity estimate	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	$5,260.00	$5,000.00	Per Widelity estimate	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	$2,365.00	$2,250.00	Per Widelity estimate	N/A	N/A
Sub-total	$370,316.00	$363,250.00	N/A	$28,457.50	N/A
Total for all systems	$5,070,574.53	$4,223,896.36	N/A	$2,032,557.19	N/A

Components

Actual Information Description	File Name
Other Engineering Services	Information not provided.
Pre filing site review	Information not provided.

Other Legal Services	**Component Description:** Covington 60805585 v190513pmv1 **Amount:** $34.53 **Component Description:** Covington 60801029 v190712jgv2 **Amount:** $144.71 **Component Description:** Covington 60801029 v190513pmv1 **Amount:** $164.44 **Component Description:** Covington inv #60796723 Various Legal UL20181024jgv1 **Amount:** $174.42 **Component Description:** Covington 60801032 v190529jgv2 **Amount:** $70.43
Additional Field Engineering Service, 20 Days	Information not provided.
RF Exposure Measurements	Information not provided.
Comprehensive coverage verification via field study, if needed	Information not provided.
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.

ASR modification (prepare FCC Form 854)	Information not provided.
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.
Project management of the transition	**Component Description:** Osborn inv #29768 Proj Mgt thru June 29 2018 UL20190227jgv1 **Amount:** $3,462.80 **Component Description:** Osborn 32823 v190613pmv1 **Amount:** $1,275.00 **Component Description:** Osborn 32964 v190617pmv1 **Amount:** $1,275.00 **Component Description:** Osborn inv #26022 Prof srvcs 170613 - 170728 UL20181108jg v1 **Amount:** $13,578.11 **Component Description:** Osborn 33662 v190618pmv1 **Amount:** $1,275.00 **Component Description:** Inv 29203 WLTX Proj Mgt 180428-180525 UL20180716jg v2 **Amount:** $3,575.00

	Component Description: **Amount:**	Osborn 33664 v190618pmv1 $75.00
	Component Description: **Amount:**	Osborn inv #28580 Proj mgt thru 180330 UL20190326jgv1 $600.00
	Component Description: **Amount:**	Osborn inv #28990 Proj mgt 180331-180427 UL20190326jgv1 $1,350.00
Prepare and or review reimbursement form	**Component Description:** **Amount:**	Osborn 33662 v190618pmv1 $717.50
	Component Description: **Amount:**	Osborn 32964 v190617pmv1 $850.00
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	
Perform engineering study for new channel assignment and antenna development	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	

Prepare request for Special Temporary Authorization	Information not provided.
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	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 Co Justificati
Other Expenses	**$137,881.00**	**$137,276.00**		**$3,270.00**	
Internal labor	***$21,791.00***	$21,791.00	N/A	N/A	N/A
MVPD Notification of Channel Change	***$6,000.00***	$6,000.00	Communication plan to make the MVPD's aware of upcoming changes and testing dates.	N/A	N/A
Develop and air announcement of upcoming channel change	***$6,000.00***	$6,000.00	40 hours at $150 per hour to shoot, write and produce market notification spot.	$3,270.00	N/A
Equipment Storage	***$15,000.00***	$15,000.00	Antenna and RF comoponent storage	N/A	N/A
Equipment Delivery and Handling Charges	***$25,000.00***	$25,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$25,000.00***	$25,000.00	N/A	N/A	N/A
Non-zoning permits	***$25,000.00***	$25,000.00	N/A	N/A	N/A

DTV Medical Facility Notification	$11,550.00	$11,000.00	Per Widelity estimate	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	$1,110.00	$1,070.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	$335.00	$325.00	N/A	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	$195.00	$190.00	N/A	N/A	N/A
Local Zoning	***$900.00***	$900.00	3 cents per hundred of value for construction permit.	N/A	N/A
Sub-total	$137,881.00	$137,276.00	N/A	$3,270.00	N/A
Total for all systems	$5,070,574.53	$4,223,896.36	N/A	$2,032,557.19	N/A

Components

Actual Information Description	File Name
Internal labor	Information not provided.
MVPD Notification of Channel Change	Information not provided.

Develop and air announcement of upcoming channel change	**Component Description:** **Amount:**	2C Media inv #203806 Creation of channel change announcement UL20181016jgv1 $3,270.00
Equipment Storage	Information not provided.	
Equipment Delivery and Handling Charges	Information not provided.	
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
Non-zoning permits	Information not provided.	
DTV Medical Facility Notification	Information not provided.	
FCC Filing Fees - Form 2100 minor change CP application	Information not provided.	
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	
FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
Local Zoning	Information not provided.	

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$5,070,574.53	$4,223,896.36	$2,032,557.19

Reimbursement Status

Question	Response
The facility has ceased operating on its pre-auction channel.	No
Construction of final facilities or all necessary modifications are complete.	No
All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator.	No

Certification

Section	Question	Response
Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
	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. 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).
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.

	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.	**Jeffrey C Gehman** *Engineering Associate* 09/09/2019

Certification

Section	Question	Response
Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
	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. 2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct. 3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (full power and Class A stations) and/or otherwise modify a television station’s facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

	8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Jeffrey C Gehman** *Engineering Associate* 09/09/2019

Attachments