

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility 39664 ID: File 000002 Number:	Service: DTV 8041	Call Sign:	WCSH	Channel: 31 (UHF)
FRN: 0030521983	Date Submitted:	05/07 /2020		

Applicant Name, Type, and Contact Information

Applicant 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 Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer	Preparer Contact Name and Information				
Contact Information	Applicant	Address	Phone	Email	
	Gary Davis	Gary Davis	+1 (404) 873-	gadavis@tegna.	
	Regional Head of Technology and	8350 Broad	9199	com	
	Operations	Street			
	TEGNA	Suite 2000			
		Tysons, VA			
		22102			
		United States			

Broadcaster	Question	Response
Information and Transition Plan	Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
	Briefly describe transition plan	WCSH will construct it's new assigned facility. this will require a new transmitter, antenna and interim antenna and line during the primary facility construction.

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

Primary	Existing Transmitter Information				
Transmitter	Section	Question	Response		
	Existing Transmitter Description	Type of change	Purchase New		
		Use	Primary (Main)		
		Description of Use	N/A		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is this transmitter currently shared with another station?	No		
		Is this transmitter currently in operating condition?	Yes		
	Existing Transmitter	Manufacturer			
	Manufacturer and Type	Model	CDP3200 P2		
		Year	2001		
		Туре	Inductive Output Tube		
		IOT Power Type	Тwo		
		Power Capacity	50 kW		

Existing Transmitter Information

Primary	New Transmitter Costs				
Transmitter	Section	Question	Response		
	New Transmitter	Use	Primary (Main)		
		Change Type	Purchase New		
		Is this a request for upgraded equipment?	Yes		
		Manufacturer			
		Model	ULXTE 72		
		Transmitter Type	Solid State		
		Solid State Cooling	Liquid Cooled		
		Solid State Power capacity	47.2 kW		
		Justification for New Transmitter	Station has in excess of 10% TPO headroom and is eligible for a 1-Step- Up Allowance. Reimbursable TPO is 36.6 kW based on initial 90-day filing CP. This would require a ULXTE-60. A 1-Step-Up is the ULXTE- 72 and is therefore reimbursable.		

Primary	Other Transmitter Costs			
Transmitter	Section	Question	Response	
	Electrical Service	Service Entrance (3 phases 800A 208V)	No	

	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	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
	Туре	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	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
TransmitterOther Transmitter Cost Not ListedInformation not provided.

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

Primary	Existing Antenna Information				
Antenna	Section	Question	Response		
	Existing Antenna Description	Type of change	Purchase New		
		Antenna Use	Primary (Main)		
		Description of Use	N/A		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is the existing antenna shared with another station or stations?	No		
		Is the existing antenna directional?	Yes		
		Is antenna in operating condition?	Yes		
		Is antenna located on or in close proximity to an antenna farm?	No		
	Existing Antenna	Class	Full Power		
	Manufacturer and Type	Mounting	Side Mount		
		Antenna position in stack	Not in Stack		
		Polarization	Horizontal		
		Туре	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- 28DSC-R 4C150
Year	2001

Primary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	Yes	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	Yes	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna	Class	Full Power	
	Manufacturer and Types	Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Elliptical	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels/Bays	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Design power capacity in use	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	775.0 kW	
		Manufacturer		
			1	

Model	TFU-26DS0 /VP-R 4C150
Year	2018
Justification for New Antenna	Station's licensed horizontally polarized, side-mount main antenna cannot be re-tuned and must be replaced for new channel assignment

Primary Other Antenna Costs

Antenna	Section	Question	Response
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
		Туре	
		Number of channels supported	N/A
Elbow Com		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?	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

Primary	Other Antenna Cost Not Listed	
Antenna	Name	Description
	Shipping	\$6,800

Interim	New Antenna Costs			
Antenna	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	Class	Full Power	
	Manufacturer and Type	Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	Broadband Slot	
		Number of Stations Supported	1	
		Number of Panels/Bays	24	
		Lower Limit	650.00 MHz	
		Upper Limit	656.00 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 C160	
		Year	2018	

Justification for New Antenna	An interim
	antenna is
	necessary
	to keep
	station on
	air during
	primary
	antenna
	replaceme
	& for
	duration of
	assigned
	phase. TF
	24WB cos
	is
	equivalent
	to a single
	channel sl
	interim
	antenna. A
	TFU-24WI
	is required
	to replicate
	existing
	coverage.

Interim Other Antenna Costs

Antenna

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	В
	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	\$5,400

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

Existing Transmission Line Primary Existing Transmission

smissio	n 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
Existing Transmission Line Manufacturer and Type		Is the existing transmission line shared with another station or stations?	No
		Is Transmission Line in operating condition?	Yes
	-	Manufacturer	Dielectric
		Туре	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	1400 feet per run	

Primary Other Transmission Line Expenses Not Listed

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

New Transmission Line

Interim Transmission

Sion Section	Question	Response
New Transmission Line	Use	Interim
Costs	Description of Use	N/A
	Change Type	Purchase New
	Туре	Rigid
	Diameter	6 1/8 inches
	Segment Length	Broadband
	Other Segment Length	
	Number of parallel runs	1
	Length	1250 feet per run

_

Justification for New Transmission Line	Interim
	transmissio
	line is
	necessary
	to keep
	station on
	air during
	primary
	antenna
	replaceme
	& for
	duration of
	assigned
	phase. 6-1
	/8" rigid line
	is required
	to provide
	required
	power ratir
	for
	replication
	ERP.

measures well

Interim	Other Transmission Line Expenses Not Listed		
Transmissio	n Line	Description	
	TX Line Sweep	Sweep required to verify new TX line	

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

Primary	Add Tower					
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	Do you have a tower registration number?	Yes			
	Registration	ASR Number	1055705			
	Coordinates (NAD83 (North American Datum of	Latitude (NAD83)	43° 51' 30.0" N-			
	1983))	Longitude (NAD83)	070° 42' 39.0" W-			
		Overall Structure Height	1304.77 feet			
		Support Structure Height	1304.77 feet			
		Ground Elevation Above Mean Sea Level (AMSL)	1228.33 feet			

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Pacific and Southern, LLC
Date Constructed	01/01/1984

То Primarv

-	-	-	-				,
т	С)	N	/	e	r	

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 Reinforcement needed	

Tower Rigging Costs Primary

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

Other Tower Expenses Not Listed		
Name	Description	
Insurance	Insurance	
	Name	

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	850
		Explanation	Fewer PM tasks are needed & OES & 399 work are needed, so the PM total has been reduced to \$150x850hrs (\$127500), 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	Prepare and file Form FCC Construction Permit Application	Yes
Services	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

Justification	It will be
	necessary to
	survey the
	site, plan the
	equipment,
	develop
	specifications
	for purchasing
	& oversee
	multiple
	vendor RF
	projects.
	Station does
	not have
	available
	personnel or
	personnel
	trained in suc
	services.

Outside Other Professional Services Expenses Not Listed

Professional S

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

Other	Section	Question	Response
Expenses	AM Pattern Disturbance	Is an Impact Study needed?	NoNoN/AN/AN/AYes
		Is Remediation needed?	No
	Facility Expenses	an Impact Study needed? No Remediation needed? No me N/A ner Distributed Transmission System penses Not listed N/A me N/A Notification of a Medical Facility required a result of DTV broadcasting? Yes cal Zoning Yes n-zoning permits Yes M or NFS Coordination No C Construction Permit Minor Change Yes C License to Cover Application Yes C Special Temporary Authority plication es this relocation require paying sposal Costs (for equipment and other ste, net of any salvage value)? Yes es this relocation require Equipment livery or Handling Charges not otherwisee luded in individual item costs? Yes es this relocation require the velopment and Airing of an nouncement regarding an upcoming	
		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 Not Listed

Other Expenses

Name Description	
Internal labor	Local and Corporate Labor
Tele-handler forklift rental	Tele-handler forklift rental
Insurance	Insurance

Transmitters

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmitter ULXTE 72	\$1,567,800.00	\$1,494,500.00		\$1,324,043.12	
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.	\$64,600.00	\$64,600.00	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc. See attached /uploaded PDF file titled "ESM 31737 v1911115jgv1. pdf"	\$64,599.99	N/A
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,400,000.00	N/A	\$1,259,443.13	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.	\$0.00	N/A
Sub-total	\$1,567,800.00	\$1,494,500.00	N/A	\$1,324,043.12	N/A
Total for all systems	\$3,521,007.00	\$3,414,472.00	N/A	\$2,225,876.30	N/A

Components

Actual Information Description	File Name	
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:	ESM 32202 v191212jgv2 \$21,533.33
P P .,	Component Description:	ESM 32201 v200109pmv1
	Amount:	\$21,533.33
	Component Description:	ESM 33051 v200217jgv1
	Amount:	\$21,533.33

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	Component Description:	Gates inv #JW30004554-1 Primary Transmitter 50 pct pmt 1
	Amount:	UL20181205jgv1 \$669,675.56
	Component Description:	Gates US0331813 v1911125jgv1
	Amount:	\$589,767.57
Other Building Addition Size: 100.0	Information not provided.	

Antennas

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TFU-24WB- R C160	\$214,720.00	\$212,280.00		\$157,589.94	
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	Per Widelity estimate	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	Per Dielectric quotes	\$2,500.00	N/A
Shipping	\$5,400.00	\$5,400.00	N/A	N/A	N/A
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$13,000.00	N/A	N/A	N/A

\$160,480.00	\$160,480.00	N/A	\$155,089.94	N/A
\$5,260.00	\$5,000.00	Per Widelity estimate	N/A	N/A
\$230,442.00	\$228,002.00		\$187,532.10	
\$6,800.00	\$6,800.00	N/A	N/A	N/A
\$5,260.00	\$5,000.00	Per Widelity estimate	N/A	N/A
	\$5,260.00 \$230,442.00 \$6,800.00	 \$5,260.00 \$5,000.00 \$230,442.00 \$228,002.00 \$6,800.00 	\$5,260.00 \$5,000.00 Per Widelity estimate \$230,442.00 \$228,002.00 Yer \$6,800.00 \$6,800.00 N/A \$5,260.00 \$5,000.00 Per Widelity	\$5,260.00 \$5,000.00 Per Widelity estimate N/A \$230,442.00 \$228,002.00 \$187,532.10 \$6,800.00 \$6,800.00 N/A \$5,260.00 \$6,800.00 N/A \$5,260.00 \$6,800.00 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	\$19,575.00	N/A
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	\$13,900.00	\$13,200.00	Per Widelity estimate	\$9,268.20	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	per Widelity estimate	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 775 kW input, directional,, elliptically or circularly polarized	\$95,257.55	\$95,257.55	N/A	\$79,344.45	N/A
UHF - High Power, Side Mount,	\$79,344.45	\$79,344.45	***System Notice: Estimate adjusted and locked	\$79,344.45	N/A
basic slot antenna, 775 kW input, directional,, horizontally polarized			because line has been superseded. ***Per Widelity estimate.		

Components

Actual Information Description	File Name	
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	
Sweep test of existing antenna	Component Description: Amount:	Inv 24619 WCSH Sweep UL20180629jg v1 \$2,500.00
Shipping	Information not provided.	
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.	

UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 1000 kW input, directional,, horizontally	Component Description:	Die MAN01245 v190716jgv1 \$67,702.50
polarized	Component Description:	Die MAN01245
	Amount:	v190716jgv1 \$2,319.97
	Component Description: Amount:	Die MAN00851 v190715jgv1 \$37,612.50
	Component Description: Amount:	Die MAN00851 v190715jgv1 \$1,288.87
	Component Description: Amount:	Die 637001 v200317pmv1 \$15,045.00
	Component Description: Amount:	Die MAN00730 v190715jgv1 \$1,031.10
	Component Description: Amount:	Die 676017 v200317pmv1 N/A
	Component Description: Amount:	Die MAN00730 v190715jgv1 \$30,090.00
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.	

Shipping	Information not provided.	
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.	
Side mount brackets for high power antennas (if not included in antenna	Component Description:	Die MAN01343 v190805pmv1
base cost)	Amount:	\$9,787.50
	Component Description:	Die inv #MAN0084 Brackets pmt 1 UL20190220jgv1
	Amount:	\$9,787.50
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	Component Description: Amount:	Die MAN01343 v190805pmv1 \$4,634.10
	Component Description:	Die inv #MAN0084 Elbow complex pm 1 UL20190220jgv1
	Amount:	\$4,634.10
Sweep test of existing antenna	Information not provided.	
UHF - High Power, Side Mount, basic slot antenna,		
775 kW input, directional,, elliptically or circularly polarized	Component Description: Amount:	Die MAN01343 v190805pmv1 \$78,570.90
	Component Description:	Die MAN01343 v190805pmv1

UHF - High Power, Side Mount, basic slot antenna, 775 kW input, directional,, horizontally polarized	Component Description: Amount:	Die inv #MAN00849 Antenna pmt 1 UL20190220jgv1 \$78,570.90
	Component Description:	Die inv #MAN00849 Fixed flange pmt 1
	Amount:	UL20190220jgv1 \$773.55
		Fixed flange pmt 1 UL20190220jgv1

Transmission Line

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmission Line	\$296,400.00	\$282,650.00		\$152,856.69	
Rigid Transmission Line - copper, 6 1 /8" broadband	\$290,000.00	\$276,250.00	N/A	\$147,096.69	N/A
TX Line Sweep	\$6,400.00	\$6,400.00	N/A	\$5,760.00	N/A
Primary Transmission Line	\$8,518.00	\$8,518.00		\$7,666.20	
TX Line Sweep	\$8,518.00	\$8,518.00	N/A	\$7,666.20	N/A
Sub-total	\$304,918.00	\$291,168.00	N/A	\$160,522.89	N/A
Total for all systems	\$3,521,007.00	\$3,414,472.00	N/A	\$2,225,876.30	N/A

Components

Actual Information	
Description	File Name

Rigid Transmission Line - copper, 6 1/8" broadband	Component Description: Amount:	Die MAN01245 v190716jgv1 \$67,391.10
	Component Description: Amount:	Die 676017 v200407pmv2 \$171.85
	Component Description: Amount:	Die MAN00851 v190715jgv1 \$37,439.50
	Component Description: Amount:	Die 705028 v200318pmv1 \$2,583.15
	Component Description: Amount:	Die 637001 v200317pmv1 \$4,575.84
	Component Description: Amount:	Die 676017 v200407pmv2 \$1,546.65
	Component Description: Amount:	Die 728030 v200325pmv1 \$343.70
	Component Description: Amount:	Die MAN00730 v190715jgv1 \$29,951.60
	Component Description: Amount:	Die 728030 v200325pmv1 \$3,093.30

TX Line Sweep		D
	Component Description:	Die MAN01245
	Amount:	v190716jgv1 \$2,880.00
	Amount.	ψ2,000.00
	Component Description:	Die MAN00851
		v190715jgv1
	Amount:	\$1,600.00
	Component Description:	Die MAN00730
		v190715jgv1
	Amount:	\$1,280.00
TX Line Sweep		
	Component Description:	Die inv #MAN00849
		Trans test pmt 1
		UL20190220jgv1
	Amount:	\$953.10
	Component Description:	Die MAN01343
		v190805pmv1
	Amount:	\$953.10
	Component Description:	Die MAN01343
		v190805pmv1
	Amount:	\$2,880.00
	Component Description:	Die inv #MAN00849
		Sweep pmt 1
		UL20190220jgv1
	Amount:	\$2,880.00

Tower Equipment and Rigging Costs

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$669,300.00	\$636,500.00		\$311,897.25	
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	\$7,865.00	N/A
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	\$294,186.00	N/A
Tall Tower (greater than 500')	\$210,500.00	\$200,000.00	Per Widelity estimate	N/A	N/A
Insurance	\$11,500.00	\$11,500.00	See attached /uploaded PDF file titled "Tower Eng 3080 v191126jgv1. pdf"	\$9,846.25	N/A
Sub-total	\$669,300.00	\$636,500.00	N/A	\$311,897.25	N/A
Total for all systems	\$3,521,007.00	\$3,414,472.00	N/A	\$2,225,876.30	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:	TEC Final 3137 v191212jgv1 \$3,750.00
	Component Description: Amount:	WCSH TI inv #0104904-IN Structural Analysis UL20180831jg v2 \$4,115.00
Major tower reinforcement /modifications	Component Description: Amount:	FDH SIN000929 v200127jgv2 \$134,325.50
	Component Description: Amount:	FDH SIN000486 v200127jgv2 \$134,325.50
	Component Description: Amount:	Tower Eng inv #Final 2776 Structural Analysis UL20190402jgv1 \$25,535.00
Tall Tower (greater than 500')	Information not provided.	
Insurance	Component Description: Amount:	Tower Eng 3080 v191126jgv1 \$9,846.25

Outside Professional Services

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Co Justificat
Outside Professional Services	\$374,450.00	\$393,250.00		\$59,400.16	
Project management of the transition	\$134,300.00	\$150,000.00	It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399s. Station does not have available personnel or personnel trained in project management for such complex projects.	\$48,856.07	N/A
Other Legal Services	\$10,000.00	\$10,000.00	Other Legal Services related to the DTV Repack	\$424.09	N/A

Other	\$11,250.00	\$11,250.00	Fewer PM	\$1,087.50	N/A
Engineering Services			tasks are needed &		
Services			OES & 399		
			work are		
			needed, so the		
			PM total has		
			been reduced		
			to \$150x850hrs		
			(\$127500), a new OES		
			component has been		
			created &		
			funded with		
			part of the \$		
			removed from		
			PM,& "Prepare		
			& or review		
			reimbursement		
			form" has		
			been increased		
Additional Field	\$50,000.00	\$50,000.00	\$2,500 per site	N/A	N/A
Engineering	<i>\$50,000.00</i>	\$50,000.00	visit including	IN/A	IN/A
Service, 20			expenses x 20		
Days			days. It is		
Days			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		
			trained in such services.		
RF Exposure	\$21,050.00	\$20,000.00		N/A	N/A

Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	Per Widelity estimate	N/A	Ν
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
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$7,360.00	\$7,000.00	Per Widelity estimate	N/A	Ν
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	Per Widelity estimate	N/A	Ν
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	Per Widelity estimate	N/A	Ν
Prepare request for Special Temporary Authorization	\$4,100.00	\$3,000.00	Per Widelity estimate	N/A	N

Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	Per Widelity estimate	N/A	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
Prepare and or review reimbursement form	\$2,630.00	\$13,750.00	Fewer PM tasks are needed & OES & 399 work are needed, so the PM total has been reduced to \$150x850hrs (\$127500), a new OES component has been created & funded with part of the \$ removed from PM,& "Prepare & or review reimbursement form" has been increased	\$9,032.50	N/A
Pre filing site review	\$23,000.00	\$23,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	N/A	N/A

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 engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	Per Widelity estimate	N/A	N/A
Sub-total	\$374,450.00	\$393,250.00	N/A	\$59,400.16	N/A
Total for all systems	\$3,521,007.00	\$3,414,472.00	N/A	\$2,225,876.30	N/A

Components

Actual Information Description	File Name	
Project management of the transition	Component Description: Amount:	Osborn inv #28581 Proj mgt thru 180330 UL20190325jgv1 \$375.00
	Component Description: Amount:	Osborn 32965 v190617pmv1 \$675.00
	Component Description: Amount:	Osborn 35393 v191219jgv1 \$2,449.00

Component Description: Amount:	Osborn 32824 v190614pmv1 \$1,575.00
Component Description: Amount:	Osborn 32198 v191219jgv1 \$1,275.00
Component Description: Amount:	Osborn 30480 v191219jgv1 \$1,500.00
Component Description: Amount:	Osborn 33663 v190815jgv2 \$1,425.00
Component Description: Amount:	Osborn 31786 v191219jgv1 \$1,350.00
Component Description: Amount:	Osborn 33848 v200507jgv2 \$1,800.00
Component Description: Amount:	Osborn 36184 v191219jgv1 \$2,025.00
Component Description: Amount:	Osborn 30002 v191219jgv1 \$1,050.00
Component Description: Amount:	Osborn 31149 v191219jgv1 \$1,425.00

Component Description: Amount:	Osborn 36535 V200424pmv1 \$2,293.00
Component Description: Amount:	Osborn 36540 v200507jgv2 N/A
Component Description: Amount:	Osborn 33848 v191219jgv1 \$1,800.00
Component Description:	Osborn inv #29834 Proj mgt 180526- 180629
Amount:	UL20190325jgv1 \$1,800.00
Component Description: Amount:	Osborn 36562 V200424pmv1 \$1,185.00
Component Description:	Inv 29205 WCSH Proj Mgt 180428- 180525
Amount:	UL20180706jg v1 \$1,425.00
Component Description:	Osborn inv #28991 Proj mgt 180331- 180427 UL20190325jgv1
Amount:	\$1,275.00

Component Description: Amount:	Osborn inv #26020 Prof srvcs 170608 - 170728 UL20181107jg v1 \$19,453.07
Component Description: Amount:	Osborn 34998 v191219jgv1 \$1,801.00
Component Description: Amount:	Osborn 34578 v190813jgv1 \$1,425.00
Component Description: Amount:	Osborn 31604 v191219jgv1 \$975.00
Component Description: Amount:	Osborn 36535 V200424pmv1 \$300.00
Component Description: Amount:	Osborn 35807 v191219jgv1 \$2,865.00

Other Legal Services		
	Component Description:	Covington inv
		#60796723 Various Legal
		UL20181024jgv1
	Amount:	\$174.42
	Component Description:	Covington
		60801032
	•	v190715jgv2
	Amount:	\$70.43
	Component Description:	Covington
		60801029 v190712jgv2
	Amount:	\$144.71
	Component Description:	Covington
	component Description.	60801029
		v190513pmv1
	Amount:	\$164.44
	Component Description:	Covington
		60805585
		v190513pmv1
	Amount:	\$34.53
	Component Description:	Covington
		60801032
	Amount:	v190530jgv2 \$70.43
		ψι 0το

Other Engineering Services		
	Component Description:	Osborn inv #29834 Other Eng Srvcs UL20190325jgv1
	Amount:	\$1,087.50
	Component Description: Amount:	Osborn 35807 v191219jgv1 \$4,110.00
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.	
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.	
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.	
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Prepare request for Special Temporary Authorization	Information not provided.	

Perform engineering study for new channel assignment and antenna development	Information not provided.	
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	
Prepare and or review reimbursement form	Component Description:	Osborn 32965 v190617pmv1
	Amount:	\$550.00
	Component Description:	Osborn 35393
	Amount:	v191219jgv1 \$1,400.00
	Component Description:	Osborn 36184
	Amount:	v191219jgv1 \$400.00
	Component Description:	Osborn 30002
	Amount:	v191219jgv1 \$422.50
	Component Description:	Osborn 31149
	Amount:	v191219jgv1 \$525.00
	Component Description:	Osborn 36535
	Amount:	V200424pmv1 \$410.00
	Component Description:	Osborn 36540
		v200507jgv2

	Component Description: Amount:	Osborn 35807 v191219jgv1 \$635.00
	Component Description: Amount:	Osborn 32198 v191219jgv1 \$525.00
	Component Description: Amount:	Osborn 34998 v191219jgv1 \$605.00
	Component Description: Amount:	Osborn inv #28991 Amend 399 Form UL20190325jgv1 \$3,200.00
	Component Description: Amount:	Osborn 33663 v190815jgv2 N/A
	Component Description: Amount:	Osborn 34578 v190813jgv1 \$995.00
	Component Description: Amount:	Osborn 33848 v191219jgv1 \$405.00
Pre filing site review	Information not provided.	
ASR modification (prepare FCC Form 854)	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	

Prepare engineering section of FCC Form 2100	Information not provided.
(main), Construction	
Permit Application	

Other Expenses

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Co Justificati
Other Expenses	\$159,377.00	\$158,772.00		\$24,890.84	
Insurance	\$11,500.00	\$11,500.00	Insurance coverage. Please see the attached /uploaded PDF file titled "WCSH - TEC Services Agreement (9- 19-2019 TEC signed).pdf"	N/A	N/A
Tele-handler forklift rental	\$7,735.00	\$7,735.00	See attached / uploaded PDF file titled "WD Matthews PS107127 v191219jgv1. pdf"	\$7,735.00	N/A
Internal labor	\$24,052.00	\$24,052.00	N/A	N/A	N/A
MVPD Notification of Channel Change	\$6,000.00	\$6,000.00	Execute communication plan to the MVPD's about the up coming 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, edit, and post spot for audience awareness.	\$3,270.00	N/A

Equipment Storage	\$15,000.00	\$15,000.00	Six months of storage per Dielectric rate card for 2 flatbeds of equipment.	N/A	N/A
Equipment Delivery and Handling Charges	\$25,000.00	\$25,000.00	N/A	\$0.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$25,000.00	\$25,000.00	N/A	\$10,935.84	N/A
Non-zoning permits	\$25,000.00	\$25,000.00	N/A	N/A	N/A
Local Zoning	\$900.00	\$900.00	3 cents per hundred for construction permit.	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
DTV Medical Facility	\$11,550.00	\$11,000.00	Per Widelity estimate	\$2,950.00	N/A
Notification					

Total for all	\$3,521,007.00	\$3,414,472.00	N/A	\$2,225,876.30	N/A
systems					

Components

Actual Information Description	File Name	
Insurance	Information not provided.	
Tele-handler forklift rental		
	Component Description:	WD Matthews
		PS108365
	A	v200324pmv2
	Amount:	\$3,692.50
	Component Description:	WD Matthews
		PS107127
		v191219jgv1
	Amount:	\$4,042.50
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
		φ 3,270.00
Equipment Storage	Information not provided.	
Equipment Delivery and Handling Charges	Component Description:	WD Matthews PS108365 v200218pmv1
	Amount:	N/A

Disposal Costs (for equipment and other		
waste, net of any salvage	Component Description:	Pine Tree 235448
value)	Amount:	v191219pmv1 \$145.60
	Amount.	\$145.00
	Component Description:	Pine Tree 238766
		v200107pmv1
	Amount:	\$469.12
	Component Description:	Pine Tree 239197
		v200122jgv1
	Amount:	\$524.72
	Component Description:	Pine Tree 237322
		v200214pmv2b
	Amount:	\$156.00
	Component Description:	Pine Tree 232440
		v191219pmv1
	Amount:	\$140.40
	Component Description:	N Pride inv #7910
		Transmitter Demo
	Amount:	UL20190402jgv1 \$9,500.00
Non-zoning permits	Information not provided.	
Non-zoning permits		
Local Zoning		
Local Zoning	Information not provided.	
Local Zoning FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
FCC Filing Fees - Special Temporary Authorization		

DTV Medical Facility		
Notification	Component Description:	RF Notif 1399
		v200416pmv1
	Amount:	\$2,950.00

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$3,521,007.00	\$3,414,472.00	\$2,225,876.30

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

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
		 The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 	
		2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	
		3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

- 4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
- 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 05/07/2020

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

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

	 8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested. 	
an na	eclare, under penalty of perjury, that I am authorized representative of the above- med applicant for the Authorization(s) ecified above.	Jeffrey C Gehman Engineering Associate
		05/07/2020

Attachments