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: **39664** | Service: **DTV** | Call Sign: **WCSH** | Channel: **31 (UHF)**

File Number: **0000028041**

FRN: **0030521983** | Date Submitted: **02/15/2021**

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
Gary Davis *Regional Head of Technology and Operations* *TEGNA*	Gary Davis 8350 Broad Street Suite 2000 Tysons, VA 22102 United States	+1 (404) 873-9199	gadavis@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	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 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	CDP3200 P2
	Year	2001
	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	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 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

Primary Transmitter

Other Transmitter Cost Not Listed

Name	Description
Transmitter and RF Component Decommissioning	Transmitter and RF Component Decommissioning

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	Side 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-28DSC-R 4C150
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	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)	775.0 kW
	Manufacturer	

	Model	TFU-26DSC /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 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?	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 Antenna

Other Antenna Cost Not Listed

Name	Description
Shipping	$6,800

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	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 replacement & for duration of assigned phase. TFU-24WB cost is equivalent to a single-channel slot interim antenna. A TFU-24WB 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	$5,400

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	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 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	1250 feet per run

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

Interim Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
TX Line Sweep	Sweep required to verify new TX line measures well

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

Add 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	1055705
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	43° 51' 30.0" N-
	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

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

Name	Description
Insurance	Insurance

Outside Professional Services Costs

Section	Question	Response
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 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	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 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
Insurance	Insurance
Internal labor	Local and Corporate Labor
Tele-handler forklift rental	Tele-handler forklift rental

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 Co Justificat
Primary Transmitter ULXTE 72	**$1,592,320.00**	**$1,519,020.00**		**$1,441,038.82**	
Transmitter and RF Component Decommissioning	***$24,520.00***	$24,520.00	See attached / uploaded PDF file titled "Q Comm QC20-310 v210212jgv1. pdf"	$24,520.00	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
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

3" Rigid Conduit and Wiring (Cost per foot)	$5,200.00	$4,900.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	$1,473,000.00	$1,400,000.00	N/A	$1,351,918.83	N/A
Sub-total	$1,592,320.00	$1,519,020.00	N/A	$1,441,038.82	N/A
Total for all systems	$3,547,074.10	$3,864,446.90	N/A	$3,061,926.24	N/A

Components

Actual Information Description	File Name	
Transmitter and RF Component Decommissioning	**Component Description:** **Amount:**	Q Comm QC20-310 v210212jgv1 $24,520.00
Other Electrical Service: Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	**Component Description:** **Amount:** **Component Description:** **Amount:** **Component Description:** **Amount:**	ESM 32202 v191212jgv2 $21,533.33 ESM 32201 v200109pmv1 $21,533.33 ESM 33051 v200217jgv1 $21,533.33
Other -- Building Addition Size: 100.0	Information not provided.	
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	**Component Description:**	Gates inv #JW30004554-1 Primary Transmitter 50 pct pmt 1 UL20181205jgv1
	Amount:	$669,675.56
	Component Description:	Gates US0336382 v200702pmv1
	Amount:	$92,475.70
	Component Description:	Gates US0331813 v1911125jgv1
	Amount:	$589,767.57

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 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
UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 1000 kW input, directional,, horizontally polarized	***$160,480.00***	$160,480.00	N/A	$155,089.94	N/A
Shipping	***$5,400.00***	$5,400.00	N/A	N/A	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
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
Primary Antenna TFU-26DSC /VP-R 4C150	**$231,989.10**	**$229,549.10**		**$208,197.10**	
Shipping	***$6,800.00***	$6,800.00	N/A	N/A	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
Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$22,000.00	Per Widelity estimate	$21,750.00	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	$10,298.00	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	***$96,804.65***	$96,804.65	See attached invoices and quotes.	$96,804.65	N/A
UHF - High Power, Side Mount, basic slot antenna, 775 kW input, directional,, horizontally polarized	***$79,344.45***	$79,344.45	***System Notice: Estimate adjusted and locked because line has been superseded. ***Per Widelity estimate.	$79,344.45	N/A
Sub-total	$446,709.10	$441,829.10	N/A	$365,787.04	N/A
Total for all systems	$3,547,074.10	$3,864,446.90	N/A	$3,061,926.24	N/A

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

UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 1000 kW input, directional,, horizontally polarized	**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 $30,090.00
	Component Description: **Amount:**	Die MAN01245 v190716jgv1 $67,702.50
	Component Description: **Amount:**	Die MAN00730 v190715jgv1 $1,031.10
	Component Description: **Amount:**	Die 676017 v200317pmv1 N/A
	Component Description: **Amount:**	Die MAN01245 v190716jgv1 $2,319.97
Shipping	Information not provided.	

Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	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 base cost)	**Component Description:** Die 758004 v210118pmv1 **Amount:** $2,175.00 **Component Description:** Die MAN01343 v190805pmv1 **Amount:** $9,787.50 **Component Description:** Die inv #MAN00849 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 758004 v210118pmv1 $1,029.80
	Component Description: **Amount:**	Die MAN01343 v190805pmv1 $4,634.10
	Component Description: **Amount:**	Die inv #MAN00849 Elbow complex pmt 1 UL20190220jgv1 $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 758004 v210118pmv1 $17,460.20
	Component Description: **Amount:**	Die MAN01343 v190805pmv1 $78,570.90
	Component Description: **Amount:**	Die MAN01343 v190805pmv1 $773.55

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

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	**$296,400.00**	**$282,650.00**		**$163,328.69**	
TX Line Sweep	***$6,400.00***	$6,400.00	N/A	$6,400.00	N/A
Rigid Transmission Line - copper, 6 1/8" broadband	$290,000.00	$276,250.00	N/A	$156,928.69	N/A
Primary Transmission Line	**$8,518.00**	**$8,518.00**		**$7,878.00**	
TX Line Sweep	***$8,518.00***	$8,518.00	N/A	$7,878.00	N/A
Sub-total	$304,918.00	$291,168.00	N/A	$171,206.69	N/A
Total for all systems	$3,547,074.10	$3,864,446.90	N/A	$3,061,926.24	N/A

Components

Actual Information Description	File Name

TX Line Sweep	**Component Description:**	Die 747020 v210120pmv3
	Amount:	$640.00
	Component Description:	Die MAN00851 v190715jgv1
	Amount:	$1,600.00
	Component Description:	Die MAN00730 v190715jgv1
	Amount:	$1,280.00
	Component Description:	Die MAN01245 v190716jgv1
	Amount:	$2,880.00
Rigid Transmission Line - copper, 6 1/8" broadband	**Component Description:**	Die 730017 v200702pmv1
	Amount:	$910.00
	Component Description:	Die 747020 v210120pmv3
	Amount:	$5,760.00
	Component Description:	Die MAN00851 v190715jgv1
	Amount:	$37,439.50
	Component Description:	Die 705028 v200318pmv1
	Amount:	$2,583.15
	Component Description:	Die 637001 v200317pmv1
	Amount:	$4,575.84

Component Description:	Die MAN01245 v190716jgv1
Amount:	$67,391.10
Component Description:	Die MAN00730 v190715jgv1
Amount:	$29,951.60
Component Description:	Die 728030 v200325pmv1
Amount:	$3,093.30
Component Description:	Die 676017 v200407pmv2
Amount:	$1,546.65
Component Description:	Die 676017 v200407pmv2
Amount:	$171.85
Component Description:	Die 728030 v200325pmv1
Amount:	$343.70
Component Description:	Die 706014 v200629pmv1
Amount:	$3,162.00

TX Line Sweep	**Component Description:**	Die 758004 v210118pmv1
	Amount:	$211.80
	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
	Component Description:	Die inv #MAN00849 Trans test pmt 1 UL20190220jgv1
	Amount:	$953.10

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	**$669,300.00**	**$1,056,435.30**		**$942,332.55**	
Tall Tower (greater than 500')	$210,500.00	$619,935.30	Per Widelity estimate;see attached invoices and quotes	$619,935.30	N/A
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
Insurance	***$11,500.00***	$11,500.00	See attached /uploaded PDF file titled "Tower Eng 3080 v191126jgv1. pdf"	$9,846.25	N/A
Major tower reinforcement /modifications	$421,000.00	$400,000.00	N/A	$304,686.00	N/A
Sub-total	$669,300.00	$1,056,435.30	N/A	$942,332.55	N/A
Total for all systems	$3,547,074.10	$3,864,446.90	N/A	$3,061,926.24	N/A

Components

Actual Information Description	File Name	
Tall Tower (greater than 500')	**Component Description:** **Amount:**	FDH SIN002481 v200702pmv1 $206,645.10
	Component Description: **Amount:**	FDH SIN005850 v210114pmv1 $413,290.20
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
Insurance	**Component Description:** **Amount:**	Tower Eng 3080 v191126jgv1 $9,846.25

Major tower reinforcement /modifications	**Component Description:**	TEC 3192 v200702pmv1
	Amount:	$10,500.00
	Component Description:	FDH SIN000486 v200127jgv2
	Amount:	$134,325.50
	Component Description:	Tower Eng inv #Final 2776 Structural Analysis UL20190402jgv1
	Amount:	$25,535.00
	Component Description:	FDH SIN000929 v200127jgv2
	Amount:	$134,325.50

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 Co Justificat
Outside Professional Services	**$374,450.00**	**$397,222.50**		**$79,793.41**	
Other Engineering Services	***$11,250.00***	$11,250.00	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	$3,443.75	N/A
Pre filing site review	***$23,000.00***	$23,000.00	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	$2,500 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	$7,000.00	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
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
Prepare request for Special Temporary Authorization	$4,100.00	$3,000.00	Per Widelity estimate	$1,500.00	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	$675.00	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
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	$17,722.50	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	$17,722.50	N/A

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.	$56,028.07	N/A
Sub-total	$374,450.00	$397,222.50	N/A	$79,793.41	N/A
Total for all systems	$3,547,074.10	$3,864,446.90	N/A	$3,061,926.24	N/A

Components

Actual Information Description	File Name

Other Engineering Services	**Component Description:** Osborn 39981 v201217pmv1 **Amount:** $466.25 **Component Description:** Osborn 38570 v200717pmv1 **Amount:** $1,890.00 **Component Description:** Osborn inv #29834 Other Eng Srvcs UL20190325jgv1 **Amount:** $1,087.50 **Component Description:** Osborn 35807 v191219jgv1 **Amount:** $4,110.00
Pre filing site review	Information not provided.

Other Legal Services	**Component Description:** Covington 60801032 v190715jgv2 **Amount:** $70.43 **Component Description:** Covington 60801029 v190712jgv2 **Amount:** $144.71 **Component Description:** Covington 60801029 v190513pmv1 **Amount:** $164.44 **Component Description:** Covington 60801032 v190530jgv2 **Amount:** $70.43 **Component Description:** Covington inv #60796723 Various Legal UL20181024jgv1 **Amount:** $174.42 **Component Description:** Covington 60805585 v190513pmv1 **Amount:** $34.53
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.
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	**Component Description:** Osborn 39981 v201217pmv1 **Amount:** $1,500.00
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	**Component Description:** Osborn 39668 v201217pmv1 **Amount:** $675.00
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 39668 v201217pmv1
Amount: $2,170.00

Component Description: Osborn 38570 v200717pmv1
Amount: $1,375.00

Component Description: Osborn 40280 v201217pmv1
Amount: $75.00

Component Description: Osborn 32965 v190617pmv1
Amount: $550.00

Component Description: Osborn 38962 v200717pmv1
Amount: $675.00

Component Description: Osborn 39373 v201116pmv1
Amount: $1,420.00

Component Description: Osborn 40947 v201217pmv1
Amount: $300.00

Component Description: Osborn 39981 v201217pmv1
Amount: $2,030.00

Component Description: Osborn 36535 v200522jgv3
Amount: $410.00

Component Description: Osborn 38310 v200724pmv1
Amount: $645.00

Component Description: Osborn 36184 v191219jgv1
Amount: $400.00

Component Description: Osborn 34998 v191219jgv1
Amount: $605.00

Component Description: Osborn 35393 v191219jgv1
Amount: $1,400.00

Component Description: Osborn 31149 v191219jgv1
Amount: $525.00

Component Description: Osborn 32198 v191219jgv1
Amount: $525.00

Component Description: Osborn inv #28991 Amend 399 Form UL20190325jgv1
Amount: $3,200.00

Component Description: Osborn 33848 v191219jgv1
Amount: $405.00

Component Description: Osborn 34578 v190813jgv1
Amount: $995.00

	Component Description:	Osborn 33663 v190815jgv2
	Amount:	N/A
	Component Description:	Osborn 35807 v191219jgv1
	Amount:	$635.00
	Component Description:	Osborn 30002 v191219jgv1
	Amount:	$422.50
	Component Description:	Osborn 36540 v200507jgv2
	Amount:	N/A
Project management of the transition	**Component Description:**	Osborn 39668 v201217pmv1
	Amount:	$1,106.00
	Component Description:	Osborn 40280 v201217pmv1
	Amount:	$553.00
	Component Description:	Osborn inv #28581 Proj mgt thru 180330 UL20190325jgv1
	Amount:	$375.00
	Component Description:	Osborn 36562 v200710jgv2
	Amount:	$1,185.00

Component Description:	Osborn 32965 v190617pmv1
Amount:	$675.00
Component Description:	Osborn 39373 v201116pmv1
Amount:	$4,125.00
Component Description:	Osborn inv #28991 Proj mgt 180331-180427 UL20190325jgv1
Amount:	$1,275.00
Component Description:	Osborn 39981 v201217pmv1
Amount:	$553.00
Component Description:	Osborn 36535 v200522jgv3
Amount:	$2,593.00
Component Description:	Osborn 38310 v200724pmv1
Amount:	$280.00
Component Description:	Osborn 30480 v191219jgv1
Amount:	$1,500.00
Component Description:	Osborn 33663 v190815jgv2
Amount:	$1,425.00
Component Description:	Osborn 31786 v191219jgv1
Amount:	$1,350.00

Component Description:	Osborn 33848 v200507jgv2
Amount:	$1,800.00
Component Description:	Osborn 36184 v191219jgv1
Amount:	$2,025.00
Component Description:	Osborn 38570 v200717pmv1
Amount:	$300.00
Component Description:	Osborn 31604 v191219jgv1
Amount:	$975.00
Component Description:	Osborn 36540 v200507jgv2
Amount:	N/A
Component Description:	Osborn 39668 v201217pmv1
Amount:	$255.00
Component Description:	Osborn 36535 v200513jgv2
Amount:	N/A
Component Description:	Osborn 32824 v190614pmv1
Amount:	$1,575.00
Component Description:	Osborn inv #26020 Prof srvcs 170608 - 170728 UL20181107jg v1
Amount:	$19,453.07

Component Description:	Osborn 30002 v191219jgv1
Amount:	$1,050.00
Component Description:	Inv 29205 WCSH Proj Mgt 180428-180525 UL20180706jg v1
Amount:	$1,425.00
Component Description:	Osborn 32198 v191219jgv1
Amount:	$1,275.00
Component Description:	Osborn 33848 v191219jgv1
Amount:	$1,800.00
Component Description:	Osborn 34998 v191219jgv1
Amount:	$1,801.00
Component Description:	Osborn inv #29834 Proj mgt 180526-180629 UL20190325jgv1
Amount:	$1,800.00
Component Description:	Osborn 35807 v191219jgv1
Amount:	$2,865.00
Component Description:	Osborn 31149 v191219jgv1
Amount:	$1,425.00

Component Description:	Osborn 34578 v190813jgv1
Amount:	$1,425.00
Component Description:	Osborn 35393 v191219jgv1
Amount:	$2,449.00

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	**$159,377.00**	**$158,772.00**		**$61,767.73**	
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
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
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.	$9,018.75	N/A
Equipment Delivery and Handling Charges	***$25,000.00***	$25,000.00	N/A	$21,895.18	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 Notification	$11,550.00	$11,000.00	Per Widelity estimate	$2,950.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$25,000.00***	$25,000.00	N/A	$16,898.80	N/A
Non-zoning permits	***$25,000.00***	$25,000.00	N/A	N/A	N/A
Sub-total	$159,377.00	$158,772.00	N/A	$61,767.73	N/A

Total for all systems	$3,547,074.10	$3,864,446.90	N/A	$3,061,926.24	N/A

Components

Actual Information Description	File Name
Tele-handler forklift rental	**Component Description:** WD Matthews PS108365 v200324pmv2 **Amount:** $3,692.50 **Component Description:** WD Matthews PS107127 v191219jgv1 **Amount:** $4,042.50
Internal labor	Information not provided.
Insurance	Information not provided.
MVPD Notification of Channel Change	Information not provided.
Develop and air announcement of upcoming channel change	**Component Description:** 2C Media inv #203806 Creation of channel change announcement UL20181016jgv1 **Amount:** $3,270.00
Equipment Storage	**Component Description:** Die 833002 v200713pmv1 **Amount:** $5,118.75 **Component Description:** Die 841022 v200730pmv1 **Amount:** $3,900.00

Equipment Delivery and Handling Charges	**Component Description:** **Amount:**	Die 841022 v201006pmv2 $789.75
	Component Description: **Amount:**	Gates US0336382 v200702pmv1 $19,692.93
	Component Description: **Amount:**	WD Matthews PS108365 v200218pmv1 N/A
	Component Description: **Amount:**	Die 833002 v200713pmv1 $1,412.50
Local Zoning	Information not provided.	
FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	
FCC Filing Fees - Form 2100 minor change CP application	Information not provided.	
DTV Medical Facility Notification	**Component Description:** **Amount:**	RF Notif 1399 v200416pmv1 $2,950.00

Disposal Costs (for equipment and other waste, net of any salvage value)	**Component Description:** **Amount:**	N Pride inv #7910 Transmitter Demo UL20190402jgv1 $9,500.00
	Component Description: **Amount:**	Pine Tree 2387663 v200107pmv1 $469.12
	Component Description: **Amount:**	Pine Tree 2373227 v200214pmv2b $156.00
	Component Description: **Amount:**	Pine Tree 2354482 v191219pmv1 $145.60
	Component Description: **Amount:**	Pine Tree 2324400 v191219pmv1 $140.40
	Component Description: **Amount:**	ESM 34331 v210118pmv1 $5,500.00
	Component Description: **Amount:**	Pine Tree 2424428 v200629pmv1 $462.96
	Component Description: **Amount:**	Pine Tree 2391971 v200122jgv1 $524.72
Non-zoning permits	Information not provided.	

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$3,547,074.10	$3,864,446.90	$3,061,926.24

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	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* 02/15/2021

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* 02/15/2021

Attachments