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: **74167** | Service: **DTV** | Call Sign: **WVEC** | Channel: **11 (High VHF)** | File Number: **0000028089** | FRN: **0004336020** | Date Submitted: **03/03/2020**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
WVEC TELEVISION, INC.	Denise Branson, Sr. Paralegal TEGNA Inc. 8350 Broad Street, Suite 2000 Tysons, VA 22102 United States	+1 (703) 873-6606	dbranson@TEGNA.com	Corporation

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	WVEC will be transitioning from channel 13 to channel 11 which requires a new primary antenna, transmitter and transmission line as well as an interim antenna and line.

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 full power 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	PTCD20P2I
	Year	1994
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	8 kW

Auxiliary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	VAXTE-12R44
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	9.6 kW
	Justification for New Transmitter	Old transmitter cannot be re-tuned per manufacturers notification.

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.
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?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Auxiliary Transmitter

Other Transmitter Cost Not Listed

Information not provided.

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	PTCD20P2I
	Year	1994
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	8 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?	No
	Manufacturer	
	Model	VAXTE-12
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	9.6 kW
	Justification for New Transmitter	Old transmitters not re-tuneble per manufacturer's notification.

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.
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?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

Other Transmitter Cost Not Listed

Information not provided.

Antennas

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

Auxiliary Antenna

Add Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Full Power Backup Antenna
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this antenna currently shared with any other stations?	No
	Is this antenna directional?	No
	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)	35.0 kW
Manufacturer	
Model	TLS-V8BB-R
Year	2017

Auxiliary Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Auxiliary (Backup)
	Description of Use	Full Power backup antenna
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	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	Horizontal
	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)	35.0 kW
	Manufacturer	

	Model	TLS-V8BB-R
	Year	2019
	Justification for New Antenna	Old antenna cannot be re-tuned

Auxiliary 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?	No
	Broadband or Single Channel?	N/A
	Feed Line Size	N/A
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?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Auxiliary Antenna

Other Antenna Cost Not Listed

Name	Description
Flex Line	Flex Line
Trans Test 6-75	Trans Test 6-75
Reducer	Reducer
XFMR	XFMR
Shipping	$5,400

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?	No
	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	Circular
	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)	35.0 kW

Manufacturer	
Model	TCL-12A13
Year	1999

Primary Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	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	Circular
	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)	35.0 kW
	Manufacturer	

Model	THV-12A11 /VP-R O4 (SP)
Year	2019
Justification for New Antenna	Station's licensed circularly 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	6 1/8 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
Shipping	$6,800
New Top Plate	Existing top-plate and/or bolt pattern may not work for new top-mount antenna
Misc Antenna Items	Misc Antenna Items: Items 3 and 5-8 on attached Dielectric Quote 800056CMZ-3

Transmission Line

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

Primary Transmission Line

Add 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 this transmission currently shared with any other stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Type	Rigid
	Diameter	4 1/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1300 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.

Auxiliary Transmission Line

Add Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Auxiliary (Backup)
	Description of Use	Used for maintenane a and primary facility repair
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmission currently shared with any other stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1250 feet per run

Auxiliary 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.

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	1043102
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	36° 49' 00.0" N-
	Longitude (NAD83)	076° 28' 05.0" W-
	Overall Structure Height	1225.05 feet
	Support Structure Height	1095.79 feet
	Ground Elevation Above Mean Sea Level (AMSL)	23.95 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	WVEC TELEVISION INC
Date Constructed	06/24/1999

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	750
	Explanation	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.
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	Yes
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
RF Field Engineering Services	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	Yes

Number of Days	20
Justification	$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.

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Pre filing site review	Outside engineering firm to review all sites before filling.
Other Engineering Services	Fewer Proj Mgt "PM" tasks are req'd & Other Engineering Services "OES" are req'd, so the PM total was reduced to 750 hrs ($112,500.00 at $150/hr), a new OES comp was created & funded with $ from PM. See attachment titled "KGA quote to WVEC for OES.pdf"
Other Legal Services	Other Legal Services related to the DTV Repack

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	Yes
	Is Remediation needed?	Yes
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 Costs

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 VAXTE-12	**$386,700.00**	**$406,381.40**		**$281,536.34**	
Other Electrical Service: Additional electrical services required for transmitter installation.	***$25,000.00***	$25,000.00	Additional electrical services required for transmitter installation.	$3,052.00	N/A
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	$331,500.00	$351,481.40	Per Gates AIR Quote. Includes TAX	$278,484.34	N/A
3" Rigid Conduit and Wiring (Cost per foot)	$5,200.00	$4,900.00	N/A	N/A	N/A

Other -- HVAC Service Type: H Size:5 (Other)	***$25,000.00***	$25,000.00	Additional HVAC is required for operation of new air-cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.	N/A	N/A
Auxiliary Transmitter VAXTE-12R44	**$386,700.00**	**$406,381.40**		**$258,023.68**	
Other -- HVAC Service Type: H Size:5 (Other)	***$25,000.00***	$25,000.00	Additional HVAC is required for operation of new air-cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.	N/A	N/A
Other Electrical Service: Additional electrical services required for transmitter installation.	***$25,000.00***	$25,000.00	Additional electrical services required for transmitter installation.	$3,052.00	N/A

3" Rigid Conduit and Wiring (Cost per foot)	$5,200.00	$4,900.00	N/A	N/A	N/A
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	$331,500.00	$351,481.40	Per Gates Air quote. Includes TAX	$254,971.68	N/A
Sub-total	$773,400.00	$812,762.80	N/A	$539,560.02	N/A
Total for all systems	$2,576,655.00	$2,551,313.80	N/A	$1,277,850.31	N/A

Components

Actual Information Description	File Name
Other Electrical Service: Additional electrical services required for transmitter installation.	**Component Description:** DVG 123070 v200207pmv1 **Amount:** $3,052.00
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	**Component Description:** Gates inv #JW30004556-1 Primary Transmitter 50 pct pmt 1 UL20181207jgv1 **Amount:** $144,371.40 **Component Description:** Gates US0331558 v191126jgv1 **Amount:** $134,112.94
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
Other -- HVAC Service Type: H Size:5 (Other)	Information not provided.

Other -- HVAC Service Type: H Size:5 (Other)	Information not provided.	
Other Electrical Service: Additional electrical services required for transmitter installation.	**Component Description:** **Amount:**	DVG 123070 v200207pmv1 $3,052.00
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	**Component Description:** **Amount:** **Component Description:** **Amount:**	Gates US0331557 v191126jgv1 $110,600.28 Gates inv #JW30004555-1 Aux Transmitter 50 pct pmt 1 UL20181207jgv1 $144,371.40

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna THV-12A11 /VP-R O4 (SP)	**$450,301.00**	**$447,969.00**		**$374,542.10**	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	$12,300.00	$10,298.00	N/A	$10,298.00	N/A
High VHF - High Power Top Mount One Station elliptically or circularly polarized	***$374,000.00***	$374,000.00	Per Widelity Estimate	$313,388.00	N/A
Shipping	***$6,800.00***	$6,800.00	N/A	N/A	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$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	$23,190.00	N/A

Misc Antenna Items	***$25,471.00***	$25,471.00	Misc Antenna Items: Items 3 and 5-8 on attached Dielectric Quote 800056CMZ-3	$21,906.10	N/A
Auxiliary Antenna TLS-V8BB-R	**$129,636.00**	**$116,469.00**		**$99,962.10**	
Flex Line	***$6,700.00***	$6,700.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	$6,030.00	N/A
XFMR	***$1,858.00***	$1,858.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	$1,672.20	N/A
Shipping	***$5,400.00***	$5,400.00	N/A	N/A	N/A
Trans Test 6-75	***$2,118.00***	$2,118.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	$1,906.20	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$10,313.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	$9,281.70	N/A

Sweep test of existing antenna	$6,730.00	$6,400.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	$5,760.00	N/A
High VHF - High Power Side Mount One Station horizontally polarized	***$82,350.00***	$82,350.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	$74,115.00	N/A
Reducer	***$1,330.00***	$1,330.00	See attached PDF titled "Die MAN01456 v191007jgv1.pdf"	$1,197.00	N/A
Sub-total	$579,937.00	$564,438.00	N/A	$474,504.20	N/A
Total for all systems	$2,576,655.00	$2,551,313.80	N/A	$1,277,850.31	N/A

Components

Actual Information Description	File Name

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	**Component Description:** **Amount:**	Die MAN00916 Elbow complex 45 pct pmt 1 v190531jgv1 $4,634.10
	Component Description: **Amount:**	Die 669002 v200217pmv1 $1,029.80
	Component Description: **Amount:**	Die MAN01198 v190809pmv1 $4,634.10
	Component Description: **Amount:**	Die 684010 v200217pmv1 N/A
High VHF - High Power Top Mount One Station elliptically or circularly polarized	**Component Description:** **Amount:**	Die MAN00916 Antenna 45 pct pmt 1 v190531jgv1 $141,024.60
	Component Description: **Amount:**	Die MAN01198 v190809pmv1 $141,024.60
	Component Description: **Amount:**	Die 533002 v190809pmv1 $31,338.80
Shipping	Information not provided.	

Sweep test of existing antenna	**Component Description:**	Die MAN00916 Sweep 45 pct pmt 1 v190531jgv1
	Amount:	$2,880.00
	Component Description:	Die MAN01198 v190809pmv1
	Amount:	$2,880.00
New Top Plate	**Component Description:**	Die MAN00916 Top Plate 45 pct pmt 1 v190531jgv1
	Amount:	$10,435.50
	Component Description:	Die 684010 v200217pmv1
	Amount:	$2,319.00
	Component Description:	Die MAN01198 v190809pmv1
	Amount:	$10,435.50
Misc Antenna Items	**Component Description:**	Die MAN00916 Reducer 45 pct pmt 1 v190531jgv1
	Amount:	$598.50
	Component Description:	Die MAN00916 TL Flg 45 pct pmt 1 v190531jgv1
	Amount:	$773.55
	Component Description:	Die MAN00916 Xfrmr 45 pct pmt 1 v190531jgv1
	Amount:	$836.10

Component Description: Die MAN00916 Test Transition 45 pct pmt 1 v190531jgv1

Amount: $953.10

Component Description: Die MAN00916 Feed-thru 45 pct pmt 1 v190531jgv1

Amount: $6,773.85

Component Description: Die 669002 v200217pmv1

Amount: $1,505.30

Component Description: Die MAN01198 v190809pmv1

Amount: $773.55

Component Description: Die MAN01198 v190809pmv1

Amount: $953.10

Component Description: Die MAN01198 v190809pmv1

Amount: $6,773.85

Component Description: Die MAN01198 v190809pmv1

Amount: $598.50

Component Description: Die MAN01198 v190809pmv1

Amount: $836.10

	Component Description: Die 669002 v200217pmv1 **Amount:** N/A **Component Description:** Die 615015 v200217pmv1 **Amount:** $530.60
Flex Line	**Component Description:** Die MAN01456 Aux ant flex line 45 pct pmt 1 v191007jgv1 **Amount:** $3,015.00 **Component Description:** Die MAN01543 v200204pmv1 **Amount:** $3,015.00
XFMR	**Component Description:** Die MAN01456 Aux ant XFMR 45 pct pmt 1 v191007jgv1 **Amount:** $836.10 **Component Description:** Die MAN01543 v200204pmv1 **Amount:** $836.10
Shipping	Information not provided.

Trans Test 6-75	**Component Description:**	Die MAN01456 Aux ant trans test 45 pct pmt 1 v191007jgv1
	Amount:	$953.10
	Component Description:	Die MAN01543 v200204pmv1
	Amount:	$953.10
Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:**	Die MAN01543 v200204pmv1
	Amount:	$4,640.85
	Component Description:	Die MAN01456 Aux ant side mt bkts 45 pct pmt 1 v191007jgv1
	Amount:	$4,640.85
Sweep test of existing antenna	**Component Description:**	Die MAN01456 Aux ant sweep 45 pct pmt 1 v191007jgv1
	Amount:	$2,880.00
	Component Description:	Die MAN01543 v200204pmv1
	Amount:	$2,880.00

High VHF - High Power Side Mount One Station horizontally polarized	**Component Description:** **Amount:** **Component Description:** **Amount:**	Die MAN01456 Aux ant 45 pct pmt 1 v191007jgv1 $37,057.50 Die MAN01543 v200204pmv1 $37,057.50
Reducer	**Component Description:** **Amount:** **Component Description:** **Amount:**	Die MAN01456 Aux ant reducer 45 pct pmt 1 v191007jgv1 $598.50 Die MAN01543 v200204pmv1 $598.50

Cost Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	**$6,400.00**	**$6,400.00**		**$1,990.98**	
TX Line Sweep	***$6,400.00***	$6,400.00	Sweep required to verify post-transition channel measures well on existing line.	$1,990.98	N/A
Auxiliary Transmission Line	**$6,400.00**	**$6,400.00**		**$1,990.98**	
TX Line Sweep	***$6,400.00***	$6,400.00	Sweep required to verify post-transition channel measures well on existing line.	$1,990.98	N/A
Sub-total	$12,800.00	$12,800.00	N/A	$3,981.96	N/A
Total for all systems	$2,576,655.00	$2,551,313.80	N/A	$1,277,850.31	N/A

Components

Actual Information Description	File Name

TX Line Sweep	**Component Description:** **Amount:**	Modern inv #2098 Line sweep Main UL20181221jgv1 $1,990.98
TX Line Sweep	**Component Description:** **Amount:**	Modern inv #2098 Line sweep Aux UL20181221jgv1 $1,990.98

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**		**$216,815.00**	
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	N/A	N/A
Tall Tower (greater than 500')	$210,500.00	$200,000.00	N/A	N/A	N/A
Major tower reinforcement /modifications	$421,000.00	$400,000.00	N/A	$216,815.00	N/A
Sub-total	$657,800.00	$625,000.00	N/A	$216,815.00	N/A
Total for all systems	$2,576,655.00	$2,551,313.80	N/A	$1,277,850.31	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	Information not provided.

Tall Tower (greater than 500')	Information not provided.	
Major tower reinforcement /modifications	**Component Description:** **Amount:**	TCI 8751-A v191015pmv1 $216,815.00

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	**$385,610.00**	**$371,250.00**		**$39,719.13**	
Other Legal Services	***$10,000.00***	$10,000.00	Other Legal Services related to the DTV Repack	$424.09	N/A
Other Engineering Services	***$37,500.00***	$37,500.00	Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 750 hrs ($112,500.00 at $150/hr), & a new OES category has been created & funded with the money removed from PM.	$700.00	N/A
Pre filing site review	***$19,500.00***	$19,500.00	N/A	N/A	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	N/A	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	N/A	N/A	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	$4,210.00	$4,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	$2,365.00	$2,250.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	$5,260.00	$5,000.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	$4,100.00	$3,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	$1,580.00	$1,500.00	N/A	N/A	N/A

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	$2,650.00	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	N/A	N/A
Address transition timing and coordination issues w/ other stations and wireless	$2,630.00	$2,500.00	N/A	N/A	N/A
Prepare and or review reimbursement form	$2,630.00	$14,200.00	Fewer PM tasks are needed & 399 work is needed, so the PM total has been reduced to $150x672hrs ($100800), & "Prepare & or review reimbursement form" has been increased with part of the $ removed from PM	$8,730.00	N/A
Project management of the transition	$118,500.00	$100,800.00	N/A	$27,215.04	N/A
Sub-total	$385,610.00	$371,250.00	N/A	$39,719.13	N/A

Total for all systems	$2,576,655.00	$2,551,313.80	N/A	$1,277,850.31	N/A

Components

Actual Information Description	File Name
Other Legal Services	**Component Description:** Covington 60801032 v190715jgv2 **Amount:** $70.43 **Component Description:** Covington 60801029 v190513pmv1 **Amount:** $164.44 **Component Description:** Covington 60801029 v190712jgv2 **Amount:** $144.71 **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

Other Engineering Services	**Component Description:** **Amount:**	Osborn inv #29769 Engineering Srvcs UL20181126jg v1 $700.00
Pre filing site review	Information not provided.	
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 - Negotiation of lease and other matters for shared locations	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.
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 32201 v200203jgv1 **Amount:** $2,650.00
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 33666 v190618pmv1 **Amount:** $612.50 **Component Description:** Osborn 36187 v200203jgv1 **Amount:** $100.00 **Component Description:** Osborn 31608 v200224jgv2 **Amount:** $250.00 **Component Description:** Osborn 30000 v200203jgv1 **Amount:** $297.50

	Component Description: Osborn 33852 v200203jgv1 **Amount:** $272.50
	Component Description: Osborn 34581 v190810jgv1 **Amount:** $1,107.50
	Component Description: Osborn 35396 v200203jgv1 **Amount:** $495.00
	Component Description: Osborn 32201 v200203jgv1 **Amount:** $1,175.00
	Component Description: Osborn 35001 v200203jgv1 **Amount:** $530.00
	Component Description: Osborn 35810 v200203jgv1 **Amount:** $690.00
	Component Description: Osborn inv #28994 Amend 399 Form UL20190326jgv1 **Amount:** $3,200.00
Project management of the transition	**Component Description:** Osborn 32968 v190617pmv1 **Amount:** $525.00
	Component Description: Osborn 33666 v190618pmv1 **Amount:** $825.00

Component Description: Osborn 36187 v200203jgv1
Amount: $445.00

Component Description: Osborn 35396 v200203jgv1
Amount: $869.00

Component Description: Osborn 32201 v200203jgv1
Amount: $300.00

Component Description: Osborn 31608 v200224jgv2
Amount: $450.00

Component Description: Osborn 30000 v200203jgv1
Amount: $450.00

Component Description: Osborn 31789 v200203jgv1
Amount: $300.00

Component Description: Osborn 33852 v200203jgv1
Amount: $450.00

Component Description: Osborn 34581 v190810jgv1
Amount: $525.00

Component Description: Osborn 32828 v190613pmv1
Amount: $525.00

Component Description:	Osborn 32201 v200203jgv1
Amount:	$75.00
Component Description:	Osborn 30685 v200224jgv2
Amount:	$825.00
Component Description:	Osborn inv #28994 Proj mgt 180331-180427 UL20190326jgv1
Amount:	$150.00
Component Description:	Osborn 35810 v200203jgv1
Amount:	$1,077.00
Component Description:	Osborn 30483 v200203jgv1
Amount:	$525.00
Component Description:	Osborn inv #28584 Proj mgt thru 180330 UL20190326jgv1
Amount:	$450.00
Component Description:	Osborn inv #29769 Prof srvcs 180526 - 170629 UL20181126jg v1
Amount:	$1,575.00
Component Description:	Osborn 35001 v200203jgv1
Amount:	$853.00

Component Description:	Osborn inv #26016 Prof srvcs 170530 - 170728 UL20181107jg v1
Amount:	$14,408.54
Component Description:	Osborn inv #29769 Form 387 2018 Q2 UL20181126jg v1
Amount:	$337.50
Component Description:	Inv 29210 WVEC Proj Mgt 180428-180525 UL20180706jg v1
Amount:	$1,275.00

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 Cost Justification
Other Expenses	**$167,108.00**	**$165,063.00**		**$3,270.00**	
Internal labor	***$22,228.00***	$22,228.00	N/A	N/A	N/A
Non-zoning permits	***$25,000.00***	$25,000.00	N/A	N/A	N/A
Local Zoning	***$750.00***	$750.00	3 cents per hundred on construction for 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	N/A	N/A	N/A
AM Pattern Disturbance -- Remedy	$21,050.00	$20,000.00	N/A	N/A	N/A

MVPD Notification of Channel Change	***$6,000.00***	$6,000.00	promotional campaign for MVPD notification	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, produce and edit local informational spot.	$3,270.00	N/A
Equipment Storage	***$15,000.00***	$15,000.00	2 flat bed trailer storage for 6 months per Dielectric.	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
AM Pattern Disturbance -- Impact study	$7,890.00	$7,500.00	N/A	N/A	N/A
Sub-total	$167,108.00	$165,063.00	N/A	$3,270.00	N/A
Total for all systems	$2,576,655.00	$2,551,313.80	N/A	$1,277,850.31	N/A

Components

Actual Information Description	File Name
Internal labor	Information not provided.
Non-zoning permits	Information not provided.
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	Information not provided.
AM Pattern Disturbance -- Remedy	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	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.
AM Pattern Disturbance -- Impact study	Information not provided.

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$2,576,655.00	$2,551,313.80	$1,277,850.31

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* 03/03/2020

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).	
	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* 03/03/2020

Attachments