

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID:	34847	Service: DTV	Call Sign:	KING-TV	Channel: 25 (UHF)
File	000002	8077	Sign.		
Number:		_			
FRN: 000	01582782	Date	03/12		
		Submitted:	/2019		

Applicant Name, Type, and Contact Information

Information Applicant Applicant Address Phone Email Туре KING Denise +1 (703) dbranson@TEGNA. Corporation BROADCASTING Branson, Sr. 873com COMPANY Paralegal 6606 TEGNA, INC. 8350 Broad Street, Suite 2000 Tysons, VA 22102 United States

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

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	KING will transition to its new facilities with a side mount antenna in the same aperture of the existing antenna. Interim facilities will need to be constructed and this tower will need serious structural reinforcement.

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	CD3200P2	
		Year	1998	
		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	New Transmitter	Use	Primary (Main)
		Change Type	Purchase New
	Is this a request for upgraded equipm	Is this a request for upgraded equipment?	Yes
		Manufacturer	
		Model	ULXTE-40
		Transmitter Type Solid State	Solid State
		Solid State Cooling	Liquid Cooled
		Solid State Power capacity	25.3 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 17.0 kW based on initial 90-day filing CP. This would require a ULXTE-30. A 1-Step-Up is the ULXTE- 40 and is therefore reimbursable.

Primary	Other Transmitter Costs	her 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?	Yes
	Туре	Heating and Cooling
	Size	10 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	Yes
	Size	100.0 squar 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

PrimaryOther Transmitter Cost Not ListedTransmitterInformation not provided.

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

Primary	Existing Antenna Inform	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)	950.0 kW		

Manufacturer	
Model	TFU- 30DSC-R P200
Year	1998

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?	No	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	Yes	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna Manufacturer and Types	Class	Full Power	
		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)	608.0 kW	
		Manufacturer		

Model	TFU-26DS0 /VP-R P200
Year	2019
Justification for New Antenna	Licensed side-mount antenna cannot be re-tuned for new post- transition frequency and must be replaced. Station is opting to Upgrade to Elliptical polarization

Primary Other Antenna Costs

Antenna	Section	Question	Response
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
		Туре	
		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?	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 Manufacturer and Type	Class	Full Power	
		Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		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)	960.0 kW	
		Manufacturer		
		Model	TUAP4- 8 /20H-1-R SM	

Year	2019
Justification for New Antenna	An interim
	antenna is
	necessary
	to keep
	station on
	air during
	primary
	antenna
	replaceme
	& for
	duration of
	assigned
	phase. An
	interim
	antenna
	with a
	custom
	peanut
	pattern 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	Other Antenna Cost Not Listed		
Antenna	Name	Description	
	Shipping	\$6,800	

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

ransmissio	Section	Question	Response
	Existing Transmission Line Description	Type of change	Purchase New
		Use	Primary (Main)
		Description of Use	N/A
		Ownership	Owned
		Owner	N/A
		Site	N/A
		Is the existing transmission line shared with another station or stations?	No
		Is Transmission Line in operating condition?	Yes
	Existing Transmission Line Manufacturer and Type	Manufacturer	
		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	590 feet per run

Primary Existing Transmission Line

Primary	New Transmission Line			
Transmission	Section	Question	Response	
	New Transmission Line Costs	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Туре	Rigid	
		Diameter	6 1/8 inches	
		Other Diameter	N/A	
		Segment Length	19 3/4 inches	
		Other Segment Length	N/A	
		Number of parallel runs	1	
		Length	590 feet per run	
		Justification for New Transmission Line	Main 7-3 /16" rigid transmission line has 20 ft sections which are prohibited for post- transition Channel 25. Therefore, station must replace existing 20 ft section line with new 19-3/4 ft section line.	

Primary	Other Transmission Line Expenses No	ot Listed
Transmissio	n Line	Description
	TX Line Owner	Current menuin

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

Interim	New Transmission Line		
Transmissio	n Line 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	500 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	Other Transmission Line Expenses No	t Listed
Transmissio	n Line	Description

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

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

Existing Tower

Primary	Existing Tower			
Tower	Section	Question	Response	
	Existing Tower	Type of change	Modify Existing	
	Description	Tower Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Is this tower consider Complex?		
		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	Do you have a tower registration number?	Yes	
	Structure Registration	ASR Number	1032128	
	Coordinates (NAD83	Latitude (NAD83)	47° 37' 54.0" N-	
	(North American Datum of 1983))	Longitude (NAD83)	122° 21' 03.0" W-	
		Overall Structure Height	569.87 feet	
		Support Structure Height	438.64 feet	
		Ground Elevation Above Mean Sea Level (AMSL)	430.44 feet	
		Structure Type	TOWER - Free Standing or Guyed Structure	

Tower Owner	KING BROADCASTING COMPANY
Date Constructed	01/01/1953

Tower Modification Costs

Primary Tower

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

Tower Rigging Costs Primary Tower

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

Other Tower Expenses Not Listed

Primary Tower Information not provided.

Outside	Section	Question	Response
Professional	Services Costs 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	Yes
		For Main Facility	Yes
		Prepare request for Special Temporary Authority	Yes

ntity ou have Distributed Transmission em engineering services? cal Facility ain-Shielded Facility are and file Form FCC Construction nit Application Auxiliary Facility Main Facility are and file Form FCC License to er Application Auxiliary Facility Main Facility	2 N/A N/A N/A Yes Yes Yes Yes
em engineering services? eal Facility ain-Shielded Facility are and file Form FCC Construction hit Application Auxiliary Facility Main Facility are and file Form FCC License to er Application Auxiliary Facility Main Facility are request for Special Temporary	N/A N/A Yes No Yes Yes Yes
ain-Shielded Facility are and file Form FCC Construction hit Application Auxiliary Facility Main Facility are and file Form FCC License to er Application Auxiliary Facility Main Facility Main Facility are request for Special Temporary	N/A Yes No Yes Yes Yes
are and file Form FCC Construction hit Application Auxiliary Facility Main Facility are and file Form FCC License to ber Application Auxiliary Facility Main Facility Main Facility are request for Special Temporary	Yes No Yes Yes Yes
hit Application Auxiliary Facility Main Facility are and file Form FCC License to er Application Auxiliary Facility Main Facility are request for Special Temporary	No Yes Yes Yes
Main Facility are and file Form FCC License to er Application Auxiliary Facility Main Facility are request for Special Temporary	Yes Yes Yes Yes
are and file Form FCC License to er Application Auxiliary Facility Main Facility are request for Special Temporary	Yes Yes Yes
er Application Auxiliary Facility Main Facility are request for Special Temporary	Yes Yes
Nain Facility are request for Special Temporary	Yes
are request for Special Temporary	
	Vaa
ority	Yes
ntity	2
A Section 106 environmental review	No
ronmental Assessment	No
Modification	Yes
Consultation (including preparation of Form 7460)	Yes
otiation of Lease and other Matter for ed Locations	No
are or Review FCC Form 399 for bursement	Yes
ess transition timing and coordination es w/ other stations and wireless ders	Yes
prehensive coverage verification via study	Yes
xposure measurements	Yes
tional Field Engineering Service	Yes
	A Section 106 environmental review onmental Assessment Modification Consultation (including preparation of Form 7460) tiation of Lease and other Matter for ed Locations are or Review FCC Form 399 for bursement ess transition timing and coordination s w/ other stations and wireless ders orehensive coverage verification via study xposure measurements

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 Other Professional Services Expenses Not Listed

Professional	Services Costs	Description
	Other Legal Services	Other Legal Services related to the DTV Repack
	Pre filing site review	Osborne engineering conducted a pre-filing analysis to determine if all of the necessary information had been captured.
	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 KING for OES.pdf"

Other	Section	Question	Response
Expenses	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	No
		FCC License to Cover Application	No
		FCC Special Temporary Authority Application	No
	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	Other Expenses Not Listed			
Expenses	Name	Description		
	Internal labor	Local and Corporate labor		

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-40	\$1,062,700.00	\$1,123,726.48		\$304,774.76	
Other Building Addition Size: 100.0	\$25,000.00	\$25,000.00	New pad required for heat exchangers, transformers, pumps, etc. Equipment must also be shielded.	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	\$947,000.00	\$1,011,326.48	The total cost is higher due to the additional of Sales tax	\$304,774.76	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$4,900.00	N/A	N/A	N/A
Other Electrical Service: Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	\$25,000.00	\$25,000.00	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	N/A	N/A

Total for all systems	\$3,364,364.35	\$3,963,314.03	N/A	\$1,071,460.54	N/A
Sub-total	\$1,062,700.00	\$1,123,726.48	N/A	\$304,774.76	N/A
			period.		
			testing		
			during		
			transmitter		
			with main		
			operating		
			while still		
			transmitter		
			new		
			operation of		
			required for		
system			HVAC		
10 Ton	\$60,500.00	\$57,500.00	Additional	N/A	N/A

Components

Actual Information Description	File Name	
Other Building Addition Size: 100.0	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	Component Description: Amount:	Gates inv #JW30004448-1 Transmitter 1 3rd dp UL20181211jgv2 \$304,774.76
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.	Information not provided.	
10 Ton system	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 Interim Antenna TUAP4- 8 /20H-1-R SM	Predetermined Cost Estimate \$347,906.35	Estimated Cost \$345,466.35	Estimated Cost Justification	Actual Cost \$102,728.70	Actual Cost Justification
UHF - High Power, Side Mount, basic slot antenna, 960 kW input, directional,, horizontally polarized	\$90,703.35	\$90,703.35	***System Notice: Estimate adjusted and locked because line has been superseded.	\$90,703.35	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	N/A	N/A	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	\$7,391.25	N/A

Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$13,000.00	N/A	\$4,634.10	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 960 kW input, directional,, horizontally polarized	\$201,563.00	\$201,563.00	See attached Dielectric Quote 700292CMZ- 4.	N/A	N/A
Shipping	\$6,800.00	\$6,800.00	N/A	N/A	N/A
Primary Antenna TFU-26DSC /VP-R P200	\$210,396.00	\$207,806.00		\$170,930.70	
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna	\$5,260.00	\$5,000.00	N/A	N/A	N/A

UHF - High Power, Side Mount, basic slot antenna, 608 kW input, directional,, elliptically or circularly polarized	\$156,156.00	\$156,156.00	See attached Dielectric Quote DMS031-4.	\$142,087.50	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	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	\$9,268.20	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$21,750.00	N/A	\$19,575.00	N/A
Sub-total	\$558,302.35	\$553,272.35	N/A	\$273,659.40	N/A
Total for all systems	\$3,364,364.35	\$3,963,314.03	N/A	\$1,071,460.54	N/A

Components

Actual Information	
Description	File Name

Mount, basic slot antenna, 960 kW input, directional,, horizontally polarized	Component Description: Amount:	Die inv #MAN00842 Aux ant and line 45 pct pmt 1 UL20190128jgv1 \$90,703.35
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: Amount:	Die inv #MAN00842 Aux ant mt brackets 45 pct pmt 1 UL20190128jgv1 \$7,391.25
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	Component Description: Amount:	Die inv #MAN00842 Aux elbow complex 45 pct pmt 1 UL20190128jgv1 \$4,634.10
Sweep test of existing antenna	Information not provided.	
UHF - High Power, Side Mount, basic slot antenna, 960 kW input, directional,, horizontally polarized	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.	

UHF - High Power, Side Mount, basic slot antenna, 608 kW input, directional,, elliptically or circularly polarized	Component Description:	Die inv #MAN01065 Primary fixed flange swivel pmt 2
	Amount:	UL20190312jgv1 \$773.55
	Component Description:	Die inv #MAN00843 Primary fixed flange swivel pmt 1
	Amount:	UL20190312jgv1 \$773.55
	Component Description:	Die inv #MAN01065 Primary antenna pmt 2
	Amount:	UL20190312jgv1 \$70,270.20
	Component Description:	Die inv #MAN00843 Primary antenna pmt 1
	Amount:	UL20190312jgv1 \$70,270.20
Shipping	Information not provided.	
Sweep test of existing antenna	Information not provided.	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Component Description:	Die inv #MAN01065 Primary elbow complex pmt 2
	Amount:	UL20190312jgv1 \$4,634.10
	Component Description:	Die inv #MAN00843 Primary elbow
	Amount:	complex pmt 1 UL20190312jgv1 \$4,634.10

Side mount brackets for high power antennas (if not included in antenna base cost)	Component Description:	Die inv #MAN01065 Primary side brackets pmt 2 UL20190312jgv1
	Amount:	\$9,787.50
	Component Description:	Die inv #MAN00843 Primary side
		brackets pmt 1 UL20190312jgv1
	Amount:	\$9,787.50

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	\$122,400.00	\$116,900.00		\$36,874.17	
TX Line Sweep	\$6,400.00	\$6,400.00	N/A	\$2,880.00	N/A
Rigid Transmission Line - copper, 6 1 /8" broadband	\$116,000.00	\$110,500.00	N/A	\$33,994.17	N/A
Primary Transmission Line	\$125,580.00	\$92,718.20		\$81,899.28	
Rigid Transmission Line - copper, 6 1/8"	\$119,180.00	\$86,318.20	See attached Dielectric Quote DMS031-4. Estimated total include the Transmission Line & Fixed Flange Swivel line items 5 and 10.	\$76,139.28	N/A
TX Line Sweep	\$6,400.00	\$6,400.00	N/A	\$5,760.00	N/A
Sub-total	\$247,980.00	\$209,618.20	N/A	\$118,773.45	N/A
Total for all systems	\$3,364,364.35	\$3,963,314.03	N/A	\$1,071,460.54	N/A

Actual Information Description	File Name	
TX Line Sweep	Component Description:	Die inv #MAN00842 Aux sweep 45 pct pmt 1 UL20190128jgv1
	Amount:	\$2,880.00
Rigid Transmission Line - copper, 6 1/8" broadband	Component Description:	Die inv #MAN00842 Aux TLSCRs 45 pct pmt 1
	Amount:	UL20190128jgv1 \$3,093.30
	Component Description:	Die inv #MAN00842 Aux transmission line 45 pct pmt 1 UL20190128jgv1
	Amount:	\$30,900.87

Rigid Transmission Line - copper, 6 1/8"	Component Description:	Die inv #MAN01065 Primary fixed flange swivel pmt 2
	Amount:	UL20190312jgv1 \$2,319.97
	Component Description:	Die inv #MAN00843 Primary fixed flange swivel pmt 1
	Amount:	UL20190312jgv1 \$2,319.97
	Component Description:	Die inv #MAN01065 Primary transmission line pmt 2 UL20190312jgv1
	Amount:	\$35,749.67
	Component Description:	Die inv #MAN00843 Primary transmission line pmt 1 UL20190312jgv1
	Amount:	\$35,749.67
TX Line Sweep	Component Description:	Die inv #MAN01065 Primary sweep pmt
	Amount:	2 UL20190312jgv1 \$2,880.00
	Component Description:	Die inv #MAN00843 Primary sweep pmt 1 UL20190312jgv1

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 Cos Justificatio
Primary Tower TOWER	\$868,300.00	\$1,425,000.00		\$332,270.00	
Major tower reinforcement /modifications	\$421,000.00	\$1,000,000.00	Tower is very complicated in metro neighborhood. Tower showing signs of compression. Replacement probably not an option because of very tough local zoning.	\$332,270.00	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$400,000.00	N/A	N/A	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$25,000.00	N/A	N/A	N/A

Sub-total	\$868,300.00	\$1,425,000.00	N/A	\$332,270.00	N/A
Total for all systems	\$3,364,364.35	\$3,963,314.03	N/A	\$1,071,460.54	N/A

Actual Information Description	File Name	
Major tower reinforcement /modifications	Component Description: Amount:	TCI inv #8589 Foundation modification 50 pct pmt 1 UL20190127jgv1 \$223,420.00
	Component Description: Amount:	TCI inv #8643 Tower maintenance and repairs pmt 1 UL20190306jgv1 \$108,850.00
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Information not provided.	
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	Information not provided.	

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 Cos Justificatic
Outside Professional Services	\$389,685.00	\$414,850.00		\$29,111.93	
Other Engineering Services	\$37,500.00	\$37,500.00	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 KING for OES.pdf"	\$24,625.01	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
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	N/A	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	\$7,360.00	\$7,000.00	N/A	N/A	N
File request for Special					
Temporary					
Authorization					
Attorney Fees -	\$2,365.00	\$2,250.00	N/A	N/A	N
Prepare and					
File FCC Form					
2100 (main),					
License to					
Cover					
Application					
Attorney Fees -	\$2,105.00	\$4,000.00	N/A	N/A	N
Aux Antenna,					
prepare and					
File Form 2100					
Construction					
Permit or					
License					
Application					
Attorney Fees -	\$5,260.00	\$5,000.00	N/A	N/A	N
Prepare and					
File FCC Form					
2100 (main),					
Construction					
Permit					
Application					

Project management of the transition	\$118,500.00	\$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.	\$4,312.50	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	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
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	N/A	N/#
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N//
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	\$4,100.00	\$3,000.00	N/A	N/A	N//
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/#
Pre filing site review	\$24,100.00	\$24,100.00	N/A	N/A	N//
Other Legal Services	\$10,000.00	\$10,000.00	Other Legal Services related to the DTV Repack	\$174.42	N/A
Sub-total	\$389,685.00	\$414,850.00	N/A	\$29,111.93	N//
Total for all systems	\$3,364,364.35	\$3,963,314.03	N/A	\$1,071,460.54	N/A

Actual Information Description	File Name	
Other Engineering Services	Component Description:	Osborn inv #26012 Prof srvcs 170531 - 170728 UL20190220jgv2
	Amount:	\$21,075.01
	Component Description:	Osborn inv #29771 Other Engineering Services UL20181206jgv1
	Amount:	\$3,550.00
Additional Field Engineering Service, 20 Days	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 - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	Information not provided.	
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Project management of the transition	Component Description:	Inv 29213 KING Proj Mgt 180428- 180525 UL20180702jg v1
	Amount:	\$1,575.00
	Component Description:	Osborn inv #29771 Form 387 2018 Q2 UL20181206jgv1
	Amount:	\$337.50
	Component Description:	Osborn inv #26012 Prof srvcs 170531 170728
	Amount:	UL20181107jg v1 \$21,075.01
	Component Description:	Osborn inv #29771 Prof srvcs 180526 180629
	Amount:	UL20181206jgv1 \$2,400.00
Prepare and or review reimbursement form	Information not provided.	
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	

Perform engineering study for new channel assignment and antenna	Information not provided.	
development		
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.	
Prepare request for Special Temporary Authorization	Information not provided.	
RF Exposure Measurements	Information not provided.	
Pre filing site review	Information not provided.	
Other Legal Services		
	Component Description:	Covington inv #60796723 Various Legal
	Amount:	UL20181024jgv1 \$174.42

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 Cost Justification
Other Expenses	\$237,397.00	\$236,847.00		\$12,871.00	
MVPD Notification of Channel Change	\$6,000.00	\$6,000.00	Hire services to insure that MVPD's have been notified of upcoming changes and testing windows for new channel operation.	N/A	N/A
Develop and air announcement of upcoming channel change	\$6,000.00	\$6,000.00	Produce informational spot about upcoming changes for consumers.	\$3,270.00	N/A
Internal labor	\$23,847.00	\$23,847.00	N/A	N/A	N/A
Equipment Storage	\$15,000.00	\$15,000.00	Flatbed storage for 6 months per Dielectric for new antennas and transmission line.	N/A	N/A
Equipment Delivery and Handling Charges	\$25,000.00	\$25,000.00	N/A	N/A	N/A

Total for all systems	\$3,364,364.35	\$3,963,314.03	N/A	\$1,071,460.54	N/A
Sub-total	\$237,397.00	\$236,847.00	N/A	\$12,871.00	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
Non-zoning permits Local Zoning	\$25,000.00	\$25,000.00	N/A Zoning and Construction permits could require extensive reviews and extensively long permitting process. expediter are commonly used and because of the location of the tower we can expect multiple challenges in the permitting process for structural mods.	\$9,601.00 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

Description	File Name	
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
Internal labor	Information not provided.	
Equipment Storage	Information not provided.	
Equipment Delivery and Handling Charges	Information not provided.	
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
Non-zoning permits		
	Component Description:	City of Seattle inv #1041343 Ant struct alter local permit pmt 2 UL20181029jgv1
	Amount:	\$2,581.00
	Component Description:	City of Seattle inv #943971 Ant struc alter local permit pmt 1
	Amount:	UL20181029jgv1 \$7,020.00
Local Zoning	Information not provided.	
DTV Medical Facility Notification	Information not provided.	

Cost Information	Grand Total				
		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$3,364,364.35	\$3,963,314.03	\$1,071,460.54	

Reimbursem	entestiatus	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.	
		 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 03/12/2019

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		 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.

	 The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 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 au name	are, under penalty of perjury, that I am athorized representative of the above- ad applicant for the Authorization(s) fied above.	Jeffrey C Gehman Engineering Associate
		03/12/2019

Attachments