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: **72145** | Service: **DTV** | Call Sign: **WHDH** | Channel: **42 (UHF)**

File Number: **0000027185**

FRN: **0003613825** | Date Submitted: **11/16/2018**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
WHDH-TV Doing Business As: WHDH-TV	Paul Magnes GOVERNMENT CENTER 7 BULFINCH PLACE BOSTON, MA 02114 United States	+1 (617) 725-0710	pmagnes@whdh.com	Trust

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
The Preparer is same as the reimbursement contact.			

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	Install interim antenna/transmission line. Broadcast on interim antenna while tower structural work is completed. Install new (upgrade) Solid State Transmitter. Go on air with new Transmitter and main antenna during testing window.

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	DCX Paragon
	Year	2009
	Type	Inductive Output Tube
	IOT Power Type	Three
	Power Capacity	75 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	ULTE 90
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	53 kW
	Justification for New Transmitter	Unlike with WHDH's existing Comark IOT Transmitter, the requested transmitter will permit WHDH to remain on air at full power during the transition

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	No
	Size	N/A
	Length	N/A
	Other Electrical Service	Yes
	Description	Electrician materials and labor to install transmitter
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	15 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

Name	Description
System Design, Site Survey	Transmitter installation site survey

Antennas

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

Primary Antenna

Add 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 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	Top Mount
	Antenna position in stack	Middle
	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-24GBH-R06
Year	1998

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?	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	Top
	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)	1000.0 kW
	Manufacturer	

	Model	TFU-28JTH /VP-R 06
	Year	2017
	Justification for New Antenna	Current Main antenna cannot be retuned to new frequency

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	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	8 3/16 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	No
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
Bottom Support Pole	Approximate 50' support pole and wedding cake adapter to support main antenna to maintain overall structure height
Feed Through Components	6-1/8" 75 OHM elbows, cut lengths, hangers, and transition to 8-3/16" 75 OHM to extend antenna input through support pole into tower top

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?	No
	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	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)	1000.0 kW
	Manufacturer	
	Model	TFU-16WB
	Year	2017

	Justification for New Antenna	Interim Antenna allows station to broadcast during replacement of Main antenna and during major tower structural modifications

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?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim Antenna

Other Antenna Cost Not Listed

Information not provided.

Transmission Line

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

Primary Transmission Line

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1045 feet per run

Primary Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1085 feet per run
	Justification for New Transmission Line	Current Transmission line will not work on new Frequency

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Information not provided.

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	20'
	Other Segment Length	
	Number of parallel runs	1
	Length	910 feet per run
	Justification for New Transmission Line	To feed Interim Antenna required for transition

Interim Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Nitrogen Generator	N2-Gen TL-1050 for Interim and Main Transmission Lines
3' Waveguide	Custom Waveguide to connect Waveguide switch
Motorized Waveguide Switch	Waveguide Switch allows transmitter output to switch between interim and main antenna

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?	Yes
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1005862
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	42° 18' 41.0" N-
	Longitude (NAD83)	071° 12' 58.0" W-
	Overall Structure Height	1062.30 feet
	Support Structure Height	1009.50 feet
	Ground Elevation Above Mean Sea Level (AMSL)	108.60 feet

Structure Type	other -
Tower Owner	WHDH TV
Date Constructed	04/20/1962

Primary Tower

Tower Modification Costs

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	Study needed for documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	Serious 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	760
	Explanation	Internal project management. 760 hours anticipated
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	Yes
	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
	Quantity	3
	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	Yes
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes

	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	3
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	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	No
RF Field Engineering Services	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Information not provided.

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	No
	Non-zoning permits	Yes
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	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

Information not provided.

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 ULTE 90	**$1,945,600.00**	**$1,809,691.00**		**$15,300.00**	
System Design, Site Survey	***$15,300.00***	$15,300.00	N/A	$15,300.00	N/A
Other Electrical Service: Electrician materials and labor to install transmitter	***$86,500.00***	$86,500.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	$1,788,000.00	$1,654,891.00	N/A	N/A	N/A
15 Ton system	$55,800.00	$53,000.00	N/A	N/A	N/A
Sub-total	$1,945,600.00	$1,809,691.00	N/A	$15,300.00	N/A
Total for all systems	$4,783,601.25	$4,348,396.95	N/A	$497,537.93	N/A

Components

Actual Information Description	File Name

System Design, Site Survey	**Component Description:** **Amount:** **Component Description:** **Amount:**	System Design, Site Survey final balance $13,300.00 System Design Site Survey Down Payment $2,000.00
Other Electrical Service: Electrician materials and labor to install transmitter	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	Information not provided.	
15 Ton system	Information not provided.	

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-16WB	**$152,300.00**	**$133,641.00**		**$60,138.45**	
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, horizontally polarized	***$108,720.00***	$108,720.00	N/A	$48,924.00	N/A
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	$13,700.00	$8,209.00	N/A	$3,694.05	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$10,312.00	N/A	$4,640.40	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$2,880.00	N/A
Primary Antenna TFU-28JTH /VP-R 06	**$492,970.00**	**$434,095.00**		**$181,086.75**	

Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$2,880.00	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	$289,500.00	$231,717.00	N/A	$90,016.65	N/A
Feed Through Components	***$24,530.00***	$24,530.00	Transition from 8-3 /16" 70 OHM to 6-1 /8" 75 OHM increases costs	$11,038.50	N/A
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	$15,250.00	$14,488.00	N/A	$6,519.60	N/A
Bottom Support Pole	***$156,960.00***	$156,960.00	N/A	$70,632.00	N/A
Sub-total	$645,270.00	$567,736.00	N/A	$241,225.20	N/A
Total for all systems	$4,783,601.25	$4,348,396.95	N/A	$497,537.93	N/A

Components

Actual Information Description	File Name

UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, horizontally polarized	**Component Description:** **Amount:**	Interim Antenna-UHF Broadband Side Mount $48,924.00
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	**Component Description:** **Amount:**	Transition WR1500 X 6-50 UHF System Use Per Rev-E 013A77140 $990.00
	Component Description: **Amount:**	Transition WR1500 X 8-75 CH35 $1,714.05
	Component Description: **Amount:**	TRANS WR1500 X 6-50 CH35 $990.00
Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:** **Amount:**	Antenna Mounting Brackets for Tapered Tower $4,640.40
Sweep test of existing antenna	**Component Description:** **Amount:**	Repack Sweep $2,880.00
Sweep test of existing antenna	**Component Description:** **Amount:**	Repack Sweep $2,880.00

UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	**Component Description:** **Amount:**	UHF High Power Top Mount Antenna $90,016.65
Feed Through Components	**Component Description:** **Amount:**	Feed Through Components $11,038.50
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	**Component Description:** **Amount:**	Elbow Complex-Single Channel $6,519.60
Bottom Support Pole	**Component Description:** **Amount:**	Bottom Support Pole $70,632.00

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	**$216,671.25**	**$205,553.75**		**$92,499.19**	
3' Waveguide	***$800.00***	$800.00	N/A	$360.00	N/A
Nitrogen Generator	***$18,273.25***	$18,273.25	N/A	$8,222.97	N/A
Motorized Waveguide Switch	***$13,778.00***	$13,778.00	N/A	$6,200.10	N/A
Rigid Transmission Line - copper, 6 1/8"	$183,820.00	$172,702.50	N/A	$77,716.12	N/A
Primary Transmission Line	**$376,495.00**	**$243,671.20**		**$109,652.04**	
Rigid Transmission Line - copper, 8 3 /16"	$376,495.00	$243,671.20	N/A	$109,652.04	N/A
Sub-total	$593,166.25	$449,224.95	N/A	$202,151.23	N/A
Total for all systems	$4,783,601.25	$4,348,396.95	N/A	$497,537.93	N/A

Components

Actual Information Description	File Name

3' Waveguide	**Component Description:**	W/G Kit WR1500 RF System Use for inside Building Non Pressurized Painted Black
	Amount:	$360.00
Nitrogen Generator	**Component Description:**	Portable Nitrogen Purity Sensor for N2-Gen Nitrogen Generator
	Amount:	$228.60
	Component Description:	Nitrogen Purity Sensor Sampling Kit for N2-Gen Nitrogen Generator
	Amount:	$88.20
	Component Description:	Annual Filter Replacement Kit for N2-Gen Nitrogen Generator
	Amount:	$42.19
	Component Description:	Installation Plumbing Kit for N2-Gen Nitrogen Generator
	Amount:	$67.05
	Component Description:	Regulator Kit W /low pressure alarm for N2-Gen Nitrogen Generator
	Amount:	$365.63

	Component Description:	Dew Point Alarm W /touch screen PLC Upgrade for N2-Gen Nitrogen Generator
	Amount:	$2,459.25
	Component Description:	Failure Alarm for N2-Gen Nitrogen Generator
	Amount:	$67.05
	Component Description:	Nitrogen Generator N2-Gen TL-1050. 110V, 15A
	Amount:	$4,905.00
Motorized Waveguide Switch	**Component Description:**	Switch WR1150 H Plane 115 VAC 60000
	Amount:	$6,200.10
Rigid Transmission Line - copper, 6 1/8"	**Component Description:**	Rigid Transmission Line-Copper 6-1/8" 50 OHM EIA - 800FT (830' V and 80' H)
	Amount:	$72,147.37
	Component Description:	T/L 6-50 EIA Length 15' To 20' Fixed FLG 1 End /Swivel FLG 1 End
	Amount:	$5,568.75

Rigid Transmission Line - copper, 8 3/16"	**Component Description:**	Transmission Line 8-75 EIA Length 15' to 20' Fixed FLG 1 END/ Swivel FLG 1 END
	Amount:	$4,780.80
	Component Description:	Rigid Transmission Line- Copper 8-3 /16" 75 OHM EIA-1020 FT (940' V and 80' H)
	Amount:	$104,871.24

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 other	**$1,275,100.00**	**$1,212,500.00**		**$12,500.00**	
Structural engineering tower load study for well documented tower	$12,600.00	$12,500.00	Complex self supporting tower. Structural analysis came in higher than $12,000.00	$12,500.00	N/A
Tall Tower (greater than 500')	$210,500.00	$200,000.00	N/A	N/A	N/A
Serious tower reinforcement /modifications	$1,052,000.00	$1,000,000.00	N/A	N/A	N/A
Sub-total	$1,275,100.00	$1,212,500.00	N/A	$12,500.00	N/A
Total for all systems	$4,783,601.25	$4,348,396.95	N/A	$497,537.93	N/A

Components

Actual Information Description	File Name

Structural engineering tower load study for well documented tower	**Component Description:** **Amount:**	Structural engineering tower load study for well documented tower final payment $2,000.00
	Component Description: **Amount:**	Structural engineering tower load study for well documented tower down payment $5,250.00
	Component Description: **Amount:**	Structural engineering tower load study for well documented tower progress payment $5,250.00
Tall Tower (greater than 500')	Information not provided.	
Serious tower reinforcement /modifications	Information not provided.	

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 Cost Justification
Outside Professional Services	**$272,765.00**	**$258,110.00**		**$22,311.50**	
Attorney Fees - Prepare and File request for Special Temporary Authorization	$11,040.00	$10,755.00	N/A	$4,843.00	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	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 - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	$4,210.00	$4,000.00	N/A	$3,811.00	Note- New attachment includes cover letter identifying the difference between the requested amount and the invoice as requested by the reviewer
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	$5,260.00	$5,000.00	N/A	$1,950.00	N/A
Prepare request for Special Temporary Authorization	$6,150.00	$4,605.00	N/A	$2,647.50	N/A

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	$2,617.50	I mistakenly assigned the wrong invoice to the aux construction permit component (029-03-0010)- that invoice should have been assigned here. it too was over the estimated costs- $1,860 vs. the estimate of $1,500. CTJC invoice is higher than the estimate
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	$1,580.00	$1,500.00	N/A	$0.00	N/A
RF Consulting Engineer Fees-Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	$2,105.00	$2,000.00	N/A	$1,860.00	N/A

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	$1,620.00	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	$2,962.50	N/A
Prepare and or review reimbursement form	$2,630.00	$2,500.00	N/A	N/A	N/A
Project management of the transition	$120,080.00	$114,000.00	N/A	N/A	N/A
Sub-total	$272,765.00	$258,110.00	N/A	$22,311.50	N/A
Total for all systems	$4,783,601.25	$4,348,396.95	N/A	$497,537.93	N/A

Components

Actual Information Description	File Name

Attorney Fees - Prepare and File request for Special Temporary Authorization	**Component Description:** **Amount:**	Prepare and File request for Special Temporary Authorization $397.50
	Component Description: **Amount:**	Special Temporary Authorization Filing $1,624.50
	Component Description: **Amount:**	Attorney Fees- Prepare and File request for Special Temporary Authority $4,445.50
RF Exposure Measurements	Information not provided.	
Comprehensive coverage verification via field study, if needed	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	**Component Description:** **Amount:**	prepare and File Form 2100 Aux Antenna $238.50
	Component Description: **Amount:**	FCC filing fee, Aux construction permit. Reimbursable costs 5/3/18 $1,070.00
	Component Description: **Amount:**	Matter 320205.00208 draft and file aux antenna construction permit $2,502.50
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	Attorney Fees- Prepare and file FCC form 2100 (main) Construction Permit $1,950.00

Prepare request for Special Temporary Authorization	**Component Description:** **Amount:**	Additional Engineering information for FCC in support of STA request $547.50
	Component Description: **Amount:**	Preparation of engineering in support of a Request for STA and waiver request to transition in Phase 7 instead of Phase 8 $2,100.00
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	**Component Description:** **Amount:**	Consulting Engineer prepare prepare and submit application for aux antenna construction permit $2,617.50
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, Construction Permit Application	**Component Description:** **Amount:**	Preparation of FCC Form 2100 Interim antenna construction permit $1,860.00

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	Preparation of the engineering section, Schedule A, of FCC Form 2100 Construction Permit Application $1,620.00
Perform engineering study for new channel assignment and antenna development	**Component Description:** **Amount:**	Performance of engineering studies for the new channel assignment and antenna development $2,962.50
Prepare and or review reimbursement form	Information not provided.	
Project management of the transition	Information not provided.	

Cost Information

Other Expenses

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	**$51,700.00**	**$51,135.00**		**$4,050.00**	
MVPD Notification of Channel Change	***$3,500.00***	$3,500.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	***$5,000.00***	$5,000.00	N/A	N/A	N/A
Equipment Storage	***$7,120.00***	$7,120.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	***$9,000.00***	$9,000.00	N/A	$4,050.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$10,000.00***	$10,000.00	N/A	N/A	N/A
Non-zoning permits	***$5,000.00***	$5,000.00	N/A	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
DTV Medical Facility Notification	$11,550.00	$11,000.00	N/A	N/A	N/A
Sub-total	$51,700.00	$51,135.00	N/A	$4,050.00	N/A
Total for all systems	$4,783,601.25	$4,348,396.95	N/A	$497,537.93	N/A

Components

Actual Information Description	File Name
MVPD Notification of Channel Change	Information not provided.
Develop and air announcement of upcoming channel change	Information not provided.
Equipment Storage	Information not provided.
Equipment Delivery and Handling Charges	**Component Description:** Freight, Shipping, and Handling Main Antenna and Transmission Line **Amount:** $2,700.00 **Component Description:** Interim Antenna and Transmission line Shipping and Handling to Site **Amount:** $1,350.00
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.
Non-zoning permits	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.
DTV Medical Facility Notification	Information not provided.

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$4,783,601.25	$4,348,396.95	$497,537.93

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.	**James Edmund Shultis** *Director of Engineering* 11/16/2018

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.	**James Edmund Shultis** *Director of Engineering* 11/16/2018

Attachments