

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID:	35703	Service: DTV	Call Sign:	KTVU	Channel: 31 (UHF)
File 0000027693					
Number:					
FRN: 000	5795067	Date	12/18		
		Submitted:	/2018		

Applicant Name, Type, and Contact Information

Applicant Information

n	Applicant	Address	Phone	Email	Applicant Type
	FOX TELEVISION STATIONS, LLC	Joseph M. Di Scipio 400 N. CAPITOL STREET, NW SUITE 890 WASHINGTON, DC 20001 United States	+1 (202) 824-6522	JDISCIPIO@21CF. COM	Limited Liability Company

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email	
[Confidential]				

Preparer Contact Name and Information

Contact Information	Applicant	Address	Phone	Email
	Dennis Wallace Managing Partner Meintel, Sgrignoli & Wallace, LLC	Dennis Wallace 1282 Smallwood Drive Suite 372 Waldorf, MD 20603 United States	+1 (202) 251- 7589	Dennis. Wallace@mswdtv.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.	Yes
	Briefly describe transition plan	KTVU will continue to use the existing master UHF Main and Upper Aux antennas at Sutro Tower. New Combiners for both antennas are required. Main TX will be retuned. Aux transmitter replaced. Sutro tower modifications are required.

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	Retune Existing
· · · · ·		Use	Primary (Main)
		Ownership	Owned
		Owner	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	Harris
		Model	PWR60D2
			-

Year	2009
Туре	Inductive Output Tube
IOT Power Type	Two
Power capacity	60 kW

Primary Transmitter Section

er	Section	Question	Response
	New IOT Tubes	Number of Tubes (including accessories) needed	2
	New Mask Filter	Power	60 kW
		Other Power	N/A
	New Exciter	Is a new exciter needed?	No

Primary Other Transmitter Costs

Transmitter	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	No
		Switchgear (industrial 800 amp)	No
		Transformer (480V)	No
		Power	N/A
		Rigid Conduit and Wiring	No
		Size	N/A
		Length	N/A
		Other Electrical Service	Yes
		Description	Electrical Installation - new mask filter and various interlocks.

HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Туре	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	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		
	GatesAir Retuning of Transmitter	GatesAir Quote to Retune Existing Transmitter to new channel		

Auxiliary	Existing Transmitter Information		
Transmitter	Section	Question	Response
	Existing Transmitter Description	Type of change	Purchase New
		Use	Auxiliary (Backup)
		Description of Use	Aux 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	DHD60P2
		Year	2009
		Туре	Solid State
		Solid State Cooling	Air Cooled
		Solid State Power Capacity	14 kW

Auxiliary	New Transmitter Costs		
Transmitter	Section	Question	Response
	New Transmitter	Use	Auxiliary (Backup)
		Change Type	Purchase New
		Is this a request for upgraded equipment?	No
		Manufacturer	
		Model	ULXTE-30
		Transmitter Type	Solid State
		Solid State Cooling	Liquid Cooled
	_	Solid State Power capacity	14 kW
		Justification for New Transmitter	Existing Diamond Aux transmitter is obsolete and no longer supported by its manufacturer. Replacement required.

Auxiliary Other Transmitter Costs

Transmitter Section Electrical Service	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	No
		Switchgear (industrial 800 amp)	No
	Transformer (480V)	Yes	
		Power	300 kVA
		Rigid Conduit and Wiring	Yes
		Size	3 inches
		Length	200.0 feet

	Other Electrical Service	Yes
	Description	Aux Transmitter Electrical Installation
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Туре	Cooling Only
	Size	50 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	1000.0 square feet
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Auxiliary Other Transmitter Cost Not Listed

Transmitter Name Description **Asbestos Abatement** Abatement of asbestos from transmitter room **Seismic Engineering and Modifications** Seismic engineering analysis and modifications to comply with SF requirements **Removal of Existing Equipment** Removal of Existing Equipment **Remote Control Wiring** Wire up existing remote control to new transmitter **Transmitter Installation Planning and** Develop transmitter room layout. Prepare **Installation Drawings** installation drawings

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

Existing Antenna Information

Primary

Antenna	Section	Question	Response
	Existing Antenna Description	Type of change	Retune Existing
		Antenna Use	Primary (Main)
		Description of Use	N/A
		Ownership	Leased
		Owner	Sutro Tower Inc.
		Site	N/A
		Is the existing antenna shared with another station or stations?	Yes
		Is the existing antenna directional?	Yes
		Is antenna in operating condition?	Yes
		Is antenna located on or in close proximity to an antenna farm?	Yes
	Existing Antenna	Class	Full Power
	Manufacturer and Type	Mounting	Top Mount
		Antenna position in stack	Тор
		Polarization	Elliptical
		Туре	Broadband Panel
		Number of Stations Supported	3
		Number of Panels	60
		Design power capacity in use	100.0 %

Lower Limit	500.00 MHz
Upper Limit	656.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	775.0 kW
Manufacturer	Dielectric
Model	TUM-C5SP- 14/60H-2-T- R
Year	2009

Facility ID's and Call Signs of all stations with whom the antenna is shared.

Facility ID	Call Sign
25452	KPIX-TV
58912	KCSM-TV

Primary Adjustment to Existing Antenna

Section	Question	Response
Sweep Test of Existing Antenna	Do you need a sweep test of existing antenna?	Yes

Primary Other Antenna Costs

Antenna

Antenna Section Combiner for Shared Antenna	Section	Question	Response
		Do you need a Combiner for a Shared Antenna?	Yes
	Туре	New	
	Number of channels supported	3	
		Frequencies of channels supported	RF channel
		Frequency	N/A

Enter a list of RF channel numbers.

RF Channel Number
31
27
29

Primary Antenna

Other Antenna Cost Not Listed

Name	Description
Sutro Tower Fees	Sutro Tower Fees associated with Aux Antenna System. See Spreadsheet
Sutro Tower Antenna and Combiner Monitor System	KTVU allocated costs for Sutro Tower Antenna and Combiner. Power Monitoring System. See Spreadsheet.

Auxiliary Existing Antenna Information

Antenna Section Question Response **Existing Antenna** Type of change Retune Description Existing Antenna Use Auxiliary (Backup) Description of Use Upper Aux Antenna Sutro Ownership Leased Owner Sutro Tower Inc. Site N/A Is the existing antenna shared with another Yes station or stations? Is the existing antenna directional? Yes

	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	Yes
Existing Antenna	Class	Full Power
Manufacturer and Type	Mounting	Top Mount
	Antenna position in stack	Тор
	Polarization	Horizontal
	Туре	Broadband Panel
	Number of Stations Supported	3
	Number of Panels	40
	Design power capacity in use	100.0 %
	Lower Limit	500.00 MHz
	Upper Limit	656.00 MHz
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	428.0 kW
	Manufacturer	Dielectric
	Model	TUA-C4SP- 12/40U-1-S
	Year	2009

Facility ID's and Call Signs of all stations with whom the antenna is shared.

Facility ID	Call Sign
25452	KPIX-TV
58912	KCSM-TV

Adjustment to Existing Antenna Auxiliary Antenna Section

Question

Sweep Test of Existing	Do you need a sweep test of existing	Yes
Antenna	antenna?	

Auxiliary Other Antenna Costs

Antenna

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Туре	New
	Number of channels supported	3
	Frequencies of channels supported	RF channel
	Frequency	N/A

Enter a list of RF channel numbers.

RF Channel Number

31 27 29

Auxiliary Other Antenna Cost Not Listed

Name	Description
Sutro Tower Fees	Sutro Tower Fees associated with Main Antenna. See Spreadsheet.

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

Existing Transmission Line Primary Existing Transmission

sior	Section	Question	Response
	Existing Transmission Line Description	Type of change	Utilize Existing
		Use	Primary (Main)
		Description of Use	N/A
		Ownership	Owned
		Owner	N/A
		Site	N/A
Existing Transmission Line Manufacturer and Type		Is the existing transmission line shared with another station or stations?	No
		Is Transmission Line in operating condition?	Yes
	-	Manufacturer	Dielectric
		Туре	Rigid
		Diameter	6 1/8 inches
		Other Diameter	N/A
		Segment Length	20 inches
		Other Segment Length	N/A
		Number of parallel runs	1
	Length	120 feet per run	

Primary Other Transmission Line Expenses Not Listed

Transmission	n Line	Description	
	RF Optimization	Optimize line from transmitter room to combiner input	

Existing Transmission Line

Auxiliary Transmission

n Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Auxiliary (Backup)
	Description of Use	Aux Line to Combiner
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Туре	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	120 feet per run

Auxiliary	Other Transmission Line Expenses Not Listed		
Transmissio	n Line	Description	
	RF Optimization	Optimize transr	

	•
otimization	Optimize transmission line from transmitter to combiner input

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

marv	Existing	Tower
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Primary	Existing Tower			
Tower	Section	Question	Response	
	Existing Tower Description	Type of change	Modify Existing	
		Tower Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Leased	
		Is this tower consider Complex?	Candelabra	
		Is this tower currently shared with any other stations?	Yes	
		One or more FM, AM or TV radio broadcaster(s)	Yes	
		Others Types of Users	Yes	
		Is tower documented for structural analysis?	Yes	
		Is tower compliant with Rev G?	Yes	
	Existing Tower Structure	Do you have a tower registration number?	Yes	
	Registration	ASR Number	1001289	
	Coordinates (NAD83 (North American Datum of	Latitude (NAD83)	37° 45' 19.0" N-	
1983))	1983))	Longitude (NAD83)	122° 27' 10.0" W-	
		Overall Structure Height	976.69 feet	
		Support Structure Height	779.85 feet	
		Ground Elevation Above Mean Sea Level (AMSL)	833.98 feet	
	-			

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	SUTRO TOWER INC
Date Constructed	03/27/1998

FM, AM or TV radio broadcasters. Facility ID's, Call Signs and Services of other broadcast stations with whom the tower is shared

Facility ID	Call Sign	Service
51429	KFSF-DT	DTV
58912	KCSM-TV	DTV
65526	KRON-TV	DTV
69619	KBCW	DTV
25452	KPIX-TV	DTV
34470	KGO-TV	DTV
35500	KQED	DTV
35703	KTVU	DTV
71586	KCNS	DTV

Other Types of Users

Users

Multi User Site

Primary Tower Modification Costs

Tower

Section

Question

Engineering Study	Please what type of engineering study is required, if any:	No study needed
Tower Reinforcements	Please select whether tower reinforcements are needed:	No reinforcements needed

Primary Tower Rigging Costs

Tower

Tower

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

Primary Other Tower Expenses Not Listed

Name Description Sutro Tower Fees Tower Mapping and analysis fees. KTVU Allocated costs. See Spreadsheet. Sutro Tower Feasibility Studies Fees for Sutro tower to conduct feasibility studies on repack. KTVU Allocated Costs. See Spreadsheet.

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	850
		Explanation	Sutro Tower Project Management Fees. And KTVU Outside Project Manager for internal KTVU Facilities. See Spreadsheet.
	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	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	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	2
	NEPA Section 106 environmental review	No
	Environmental Assessment	Yes
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	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	RF Engineering Supervision of KTVU Transmitter and Combiner Installation projects.

Other Professional Services Expenses Not Listed Description Legal Fees - Local SF KTVU Allocated share of local legal fees associated with City of SF. See Spreadsheet. Prepare and File FCC Progress Report Prepare and file FCC Quarterly Progress Reports See quote from vendor.

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	Yes
		FCC License to Cover Application	Yes
		FCC Special Temporary Authority Application	Yes
	Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
		Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
		Does this relocation require Equipment Storage?	Yes
		Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
		Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses Not Listed

Other	Other Expenses Not Listed		
Expenses	Name	Description	
	Sales Tax	Sutro Tower Estimated KTVU allocation of sales tax. See Spreadsheet.	

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 PWR60D2	\$1,383,467.00	\$767,567.00		\$0.00	
Two IOT system (60 kW)	\$356,500.00	\$0.00	Catalog	N/A	N/A
2 IOT Tubes	\$255,000.00	\$0.00	Catalog	N/A	N/A
60 kW mask filter	\$89,400.00	\$85,000.00	Catalog	N/A	N/A
Other Electrical Service: Electrical Installation - new mask filter and various interlocks.	\$12,500.00	\$12,500.00	Transmitter Retune Electrical Installation Services new mask filter AC /interlocks /Conduit Changes.	N/A	N/A
GatesAir Retuning of Transmitter	\$670,067.00	\$670,067.00	GatesAir Quote to retune existing IOT transmitter. See attached Quote.	\$0.00	N/A
Auxiliary Transmitter ULXTE-30	\$1,406,215.19	\$1,659,315.19		\$435,573.20	

Transmitter Installation Planning and Installation Drawings	\$50,000.00	\$50,000.00	Transmitter Room layout planning and development of installation drawings. Detail Seismic anchors and transmission line attachments. 3-D Scanning of existing room and equipment layout. CAD layout of new equipment in room.	N/A	N/A
Remote Control Wiring	\$3,500.00	\$3,500.00	Wire up remote control to new aux transmitter	N/A	N/A
Removal of Existing Equipment	\$35,000.00	\$35,000.00	Remove existing equipment - Aux	N/A	N/A
Seismic Engineering and Modifications	\$26,230.00	\$26,230.00	Seismic Engineering Studies and Modifications to TX Room. See Spreadsheet.	N/A	N/A
Asbestos Abatement	\$4,000.00	\$4,000.00	Asbestos abatement estimate from Wadleigh for TX Room	N/A	N/A
Other Building Addition Size: 1000.0	\$241,190.00	\$241,190.00	Transmitter Room Modification Estimate from Wadleigh - see attached spreadsheet.	N/A	N/A

50 Ton system	\$172,500.00	\$428,000.00	Wadleigh estimate to replace HVAC system with SF Compliant system, roof modifications, Scaffolding, Ductwork. See Spreadsheets.	N/A	N/A
Other Electrical Service: Aux Transmitter Electrical Installation	\$110,000.00	\$110,000.00	Electrical Installation of new Aux Transmitter at Sutro Tower. Estimate from Wadleigh	N/A	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$10,400.00	\$9,800.00	Catalog	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 14 kW	\$716,595.19	\$716,595.19	GatesAir revised quote number Q- 74250 with tax added.	\$435,573.20	N/A
Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$35,000.00	Catalog	N/A	N/A
Sub-total	\$2,789,682.19	\$2,426,882.19	N/A	\$435,573.20	N/A
Total for all systems	\$5,132,776.28	\$4,522,026.28	N/A	\$453,909.20	N/A

Components

Actual Information Description	File Name
Two IOT system (60 kW)	Information not provided.
2 IOT Tubes	Information not provided.

60 kW mask filter	Information not provided.
Other Electrical Service: Electrical Installation - new mask filter and various interlocks.	Information not provided.
GatesAir Retuning of Transmitter	Information not provided.
Transmitter Installation Planning and Installation Drawings	Information not provided.
Remote Control Wiring	Information not provided.
Removal of Existing Equipment	Information not provided.
Seismic Engineering and Modifications	Information not provided.
Asbestos Abatement	Information not provided.
Other Building Addition Size: 1000.0	Information not provided.
50 Ton system	Information not provided.
Other Electrical Service: Aux Transmitter Electrical Installation	Information not provided.
3" Rigid Conduit and Wiring	Information not provided.

UHF - Liquid Cooled Solid State Transmitter 14 kW			
	Component Description:	New attachment includes cover	
		letter as	
		requested by the	
		reviewer. Auxiliary	
		ULXTE-30 1/3	
		payment due	
		before shipment	
		(2nd payment	
		made). Excludes	
		estimated tax and	
		freight.	
	Amount:	\$217,786.60	
	Component Description:	New attachment	
		includes a cover	
		letter as	
		requested by the	
		reviewer. Auxiliary	
		Transmitter	
		GatesAir Inc 1/3	
		down payment	
		due. Excludes	
		estimated freight	
		and tax.	
	Amount:	\$217,786.60	
Transformer 3 phase/480v -	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).

	Predetermined	Estimated	Estimated Cost		Actual Cost
Description	Cost Estimate	Cost	Justification	Actual Cost	Justification
Primary Antenna TUM-C5SP- 14/60H-2-T- R	\$429,515.00	\$571,525.00		\$0.00	
Sutro Tower Antenna and Combiner Monitor System	\$96,125.00	\$96,125.00	Sutro Tower - KTVU allocated cost for antenna /combiner monitoring system. See Spreadsheet.	N/A	N/A
Sutro Tower Fees	\$82,500.00	\$82,500.00	Sutro Tower Project Fees. See Spreadsheet.	N/A	N/A
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	\$5,260.00	\$5,000.00	Catalog	N/A	N/A
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$13,000.00	Catalog	N/A	N/A

Combiner output	\$126,000.00	\$120,000.00	Catalog	N/A	N/#
splitting					
/switching for dual					
feed lines,					
if applicable					
UHF - High	\$15,000.00	\$15,000.00	Optimization	N/A	N/A
Power Top			of existing		
Mount Three			antenna - estimated		
Station			allocated		
broadband			costs. Peter		
panel			Eckman.		
antenna					
elliptically					
or circularly					
polarized					
Sweep test	\$6,730.00	\$6,400.00	Catalog	N/A	N//
of existing					
antenna					
New	\$84,200.00	\$233,500.00	Sutro Tower	N/A	N//
combiner,			Estimate for		
cost per channel			KTVU Allocated		
(without			costs for new		
antenna)			Main		
,			Antenna		
			combiner		
			System		
Auxiliary	\$250,890.00	\$267,400.00		\$0.00	
Antenna TUA-C4SP-					
12/40U-1-S					
Sutro	\$0.00	\$0.00	N/A	N/A	N/A
Tower Fees					

UHF - High Power Top Mount Three Station broadband panel antenna horizontally polarized	\$15,000.00	\$15,000.00	Optimization of existing aux antenna for new channels.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	Catalog	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$108,000.00	Sutro Tower - KTVU Allocated cost esimate for Aux Antenna Combiner System.	N/A	N/A
Combiner output splitting /switching for dual feed lines, if applicable	\$126,000.00	\$120,000.00	Catalog	N/A	N/A
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$13,000.00	Catalog	N/A	N/A

Total for all	\$5,132,776.28	\$4,522,026.28	N/A	\$453,909.20	N/A
Sub-total	\$680,405.00	\$838,925.00	N/A	\$0.00	N/A
base cost)					
antenna					
included in					
(if not					
antennas					
power					
high/med					
side mount					
analysis for					
scatter					
Pattern	\$5,260.00	\$5,000.00	Catalog	N/A	N/A

Components

Information not provided.

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
Primary Transmission Line	\$18,000.00	\$18,000.00		\$0.00	
RF Optimization	\$18,000.00	\$18,000.00	Optimization of line from transmitter to combiner	N/A	N/A
Auxiliary Transmission Line	\$18,000.00	\$18,000.00		\$0.00	
RF Optimization	\$18,000.00	\$18,000.00	Optimization of transmission line from transmitter to aux combiner input.	N/A	N/A
Sub-total	\$36,000.00	\$36,000.00	N/A	\$0.00	N/A
Total for all systems	\$5,132,776.28	\$4,522,026.28	N/A	\$453,909.20	N/A

Components

Information not provided.

Tower Equipment and Rigging Costs

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$606,209.59	\$185,209.59		\$18,336.00	
Sutro Tower Feasibility Studies	\$0.00	\$0.00	Sutro Tower - KTVU Allocated costs for initial repack feasibility studies for Sutro Tower. See Spreadsheet. Included in the Sutro Tower Fees line.	N/A	N/A
Sutro Tower Fees	\$185,209.59	\$185,209.59	Sutro Tower - KTVU Allocated costs for tower mapping. See Spreadsheet.	\$18,336.00	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$0.00	N/A	N/A	N/A
Sub-total	\$606,209.59	\$185,209.59	N/A	\$18,336.00	N/A

Total for all	\$5,132,776.28	\$4,522,026.28	N/A	\$453,909.20	N/A
systems					

Components

Actual Information Description	File Name	
Sutro Tower Feasibility Studies	Information not provided.	
Sutro Tower Fees	Component Description:	Includdes cover letter as requested by reviewer. KTVU portion of repack costs- 1st invoice received. \$126,198.84
	Component Description:	Includes cover letter as requested by reviewer. KTVU portion of repack costs- 2nd invoice received. \$3,477.14
	Component Description:	Includes cover letter as requested by reviewer. KTVU portion of repack costs- 3rd invoice received/paid. \$14,930.25

	Component Description: Amount:	Includes cover letter as requested by reviewer. KTVU portion of repack costs- 4th invoice received/paid. \$22,267.36
	Component Description:	Includes cover letter as requested by reviewer. KTVU portion of repack costs- 6th invoice
	Amount:	received/paid. \$11,029.25
	Component Description: Amount:	Includes cover letter as requested by reviewer. KTVU portion of repack costs- 5th invoice received/paid. \$3,554.46
	Component Description:	KTVU portion of repack costs- 7th invoice received
	Amount:	/paid. \$3,752.29
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	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 Cost Justification
Outside Professional Services	\$385,809.50	\$400,944.50		\$0.00	
Prepare and File FCC Progress Report	\$32,727.50	\$32,727.50	Prepare and file FCC Progress Reports Quarterly. See quote attached.	N/A	N/A
Additional Field Engineering Service, 20 Days	\$31,800.00	\$31,800.00	RF Engineer on site supervision of transmitter, transmission line, and combiner installations. See attached quote.	N/A	N/A
RF Exposure Measurements	\$21,050.00	\$20,000.00	Catalog	N/A	N/A
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	Catalog	N/A	N/A
Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	\$10,520.00	\$10,000.00	Catalog	N/A	N/A

Attorney Fees - Prepare and File request for Special Temporary Authorization	\$7,360.00	\$7,000.00	Catalog	N/A	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$30,000.00	Legal Fees for Modification of lease with Sutro Tower for new channels, new combiner.	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	Catalog	N/A	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,000.00	Catalog	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	Catalog	N/A	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	Catalog	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	Catalog	N/A	N/A
Project management of the transition	\$134,300.00	\$127,500.00	Outside Project Management of transition of main and aux facilities.	N/A	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	Catalog	N/A	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$7,500.00	SFO Market / Daisy Chain Coordination for Testing and Transition Dates.	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	Catalog	N/A	N/A

Prepare engineering section of FCC Form 2100	\$3,155.00	\$3,000.00	Catalog	N/A	N/A
(main), Construction Permit Application					
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	Catalog	N/A	N/A
Prepare request for Special Temporary Authorization	\$4,100.00	\$3,000.00	Catalog	N/A	N/A
Legal Fees - Local SF	\$22,667.00	\$22,667.00	Sutro Tower - Estimated KTVU Allocated costs - local legal fees. See Spreadsheet.	N/A	N/A
Sub-total	\$385,809.50	\$400,944.50	N/A	\$0.00	N/A
Total for all systems	\$5,132,776.28	\$4,522,026.28	N/A	\$453,909.20	N/A

Components

Information not provided.

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	\$634,670.00	\$634,065.00		\$0.00	
Sales Tax	\$284,178.00	\$284,178.00	Sutro Tower and KTVU Estimate of KTVU Allocated Sales Tax and KTVU sales tax paid on its equipment purchases. See two attached Spreadsheets. Must add both together.	N/A	N/A
MVPD Notification of Channel Change	\$5,000.00	\$5,000.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	\$1,500.00	\$1,500.00	N/A	N/A	N/A
Equipment Storage	\$15,000.00	\$15,000.00	Off Site Storage of KTVU equipment until ready on site.	N/A	N/A

Equipment Delivery and Handling Charges	\$78,469.00	\$78,469.00	Sutro Tower Estimate of KTVU allocated costs for equipment delivery, storage, and handling of combiner. See Spreadsheet.	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$9,000.00	\$9,000.00	Sutro Tower Estimate of KTVU Allocated costs for equipment removal / Disposal Combiner	N/A	N/A
Non-zoning permits	\$183,333.00	\$183,333.00	Sutro Tower Estimate of KTVU Allocated costs for building Permits. See Spreadsheet.	N/A	N/A
Local Zoning	\$45,000.00	\$45,000.00	Sutro Tower - Estimate of KTVU allocated costs for Zoning approvals.	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
Sub-total	\$634,670.00	\$634,065.00	N/A	\$0.00	N/A
Total for all systems	\$5,132,776.28	\$4,522,026.28	N/A	\$453,909.20	N/A

Components

Information not provided.

Cost Information	Grand Total					
		Predetermined Cost Estimate	Estimated Cost	Actual Cost		
	Total for all systems	\$5,132,776.28	\$4,522,026.28	\$453,909.20		

Reimbursem	enrestatus	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. 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).
- 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.	Angelo Servedio Vice President Controller 12/18/2018

Attachments