



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **35703** | Service: **DTV** | Call **KTVU** | Channel: **31 (UHF)** |
ID: | Sign:
File **0000027693**
Number:
FRN: **0005795067** | Date **11/30**
Submitted: **/2020**

Applicant Information

Applicant Name, Type, and Contact Information

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	Joe. Discipio@fox.com	Limited Liability Company

Reimbursement Contact Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Dennis Wallace <i>Managing Partner</i> <i>Meintel, Sgrignoli & Wallace, LLC</i>	Dennis Wallace 1282 Smallwood Drive Suite 372 Waldorf, MD 20603 United States	+1 (202) 251-7589	Dennis. Wallace@mswdtv.com

**Broadcaster
Information
and
Transition
Plan**

Question	Response
Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	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

**Auxiliary
Transmitter****Existing Transmitter Information**

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
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	14 kW

**Auxiliary
Transmitter****New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	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
Transmitter****Other Transmitter Costs**

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
	Type	Cooling Only
	Size	30 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold 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 Transmitter

Other Transmitter Cost Not Listed

Name	Description
Site Survey	Transmitter site survey
Remote Control Wiring	Wire up existing remote control to new transmitter
Transmitter Installation Planning and Installation Drawings	Develop transmitter room layout. Prepare installation drawings
Transmitter Heat Exchanger Coolant Piping	Labor, access, wall coring and ceiling tile replacement required to install cooling line
Removal of Existing Equipment	Removal of Existing Equipment

Seismic Engineering and Modifications

Seismic engineering analysis and modifications to comply with SF requirements

**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	PWR60D2
	Year	2009
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	60 kW

**Primary
Transmitter**

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	ULXTE-72
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	47.2 kW
	Justification for New Transmitter	Re-tuning of existing transmitter not possible due to vendor unable to secure parts and perform re-tuning.

**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	No
	Description	N/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold 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
Removal of Existing Equipment	Removal of existing primary transmitter

Antennas

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

**Primary
Antenna****Existing Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	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 Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Elliptical
	Type	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	KPJK

Primary Antenna

Adjustment to Existing Antenna

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

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Type	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 Antenna and Combiner Monitor System	KTVU allocated costs for Sutro Tower Antenna and Combiner. Power Monitoring System. See Spreadsheet.
Sutro Tower Fees	Sutro Tower Fees associated with Aux Antenna System. See Spreadsheet

**Auxiliary
Antenna**

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Retune 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 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 Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Horizontal
	Type	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
58912	KPJK
25452	KPIX-TV

**Auxiliary
Antenna**

Adjustment to Existing Antenna

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

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Type	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 Antenna

Other Antenna Cost Not Listed

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

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A

	Change Type	Rent Temporary
	Ownership	Leased
	Owner	Peter Eckmann Broadcast Consultants, Inc.
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	1
	Number of Panels/Bays	12
	Lower Limit	572.00 MHz
	Upper Limit	578.00 MHz
	Design power capacity in use	100.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	470.0 kW
	Manufacturer	
	Model	TUP-C3-4-1
	Year	1999

	Justification for New Antenna	This is a temporary leased antenna to allow KTVU to transition to its post-repack channel while the permanent antenna is being configured to support permanent operation. See attached Sutro Tower quote.
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Interim Antenna

Other Antenna Costs

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	No
	Broadband or Single Channel?	N/A
	Feed Line Size	N/A
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an 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?	No

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	Utilize Existing
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Type	Rigid
	Diameter	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

Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
RF Optimization	Optimize line from transmitter room to combiner input

Auxiliary

Transmission Line

Existing Transmission Line

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
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	120 feet per run

Auxiliary
Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
RF Optimization	Optimize transmission line from transmitter to combiner input

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	100 feet per run
	Justification for New Transmission Line	Interim facility to facilitate transitioning to repack channel until final facility is ready. See attached quotation from Sutro Tower.

Interim
Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
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Transformers	2 Broadband RF Transformers
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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	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 Registration	Do you have a tower registration number?	Yes
	ASR Number	1001289
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	37° 45' 19.0" N-
	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
58912	KPJK	DTV
51429	KFSF-DT	DTV
35703	KTVU	DTV
34470	KGO-TV	DTV
35500	KQED	DTV
69619	KBCW	DTV
71586	KCNS	DTV
25452	KPIX-TV	DTV
65526	KRON-TV	DTV

Other Types of Users

Users
Multi User Site

**Primary
Tower**

Tower Modification Costs

Section	Question	Response
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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

Tower Rigging Costs

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

Primary Tower

Other Tower Expenses Not Listed

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

**Outside
Professional**

Section	Question	Response
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.
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Outside Professional

Other Professional Services Expenses Not Listed

Professional Services Costs

Name	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 Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	No
	Is Remediation needed?	No
Facility Expenses	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
Permit and Filing Costs	Local Zoning	Yes
	Non-zoning permits	Yes
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	Yes
	FCC License to Cover Application	Yes
	FCC Special Temporary Authority Application	Yes
Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	Yes
	Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
	Does this relocation require MVPD Notification of a Channel Change?	Yes

**Other
Expenses**

Other Expenses Not Listed

Name	Description
Sales Tax	Sutro Tower Estimated KTVU allocation of sales tax. See Spreadsheet.

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 ULXTE-72	\$1,502,022.00	\$1,161,647.30		\$1,161,647.30	
Removal of Existing Equipment	<i>\$29,022.00</i>	\$29,022.00	N/A	\$29,022.00	N/A
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,132,625.30	N/A	\$1,132,625.30	N/A
Auxiliary Transmitter ULXTE-30	\$2,084,468.99	\$2,082,068.99		\$1,686,883.40	
Transmitter Heat Exchanger Coolant Piping	<i>\$65,863.00</i>	\$65,863.00	N/A	\$53,775.00	N/A
Seismic Engineering and Modifications	<i>\$26,230.00</i>	\$26,230.00	Seismic Engineering Studies and Modifications to TX Room. See Spreadsheet.	N/A	N/A
Removal of Existing Equipment	<i>\$35,000.00</i>	\$35,000.00	Remove existing equipment - Aux	\$22,140.00	N/A

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
Site Survey	\$7,884.00	\$7,884.00	Site Survey required prior to transmitter install	\$0.00	N/A
Other -- HVAC Service Type: C Size:30 (Other)	\$499,656.80	\$499,656.80	Turnkey purchase and install of two 15 ton HVAC units. Includes HVAC, install, testing, disposal of old refrigerant. Also all necessary roofing and iron work.	\$499,656.80	See Wadleigh Group Inc PO 0419-18 attached to all invoices. Cost includes all equipment, install, testing, disposal of old refrigerant, etc.

Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$35,000.00	Catalog	N/A	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$10,400.00	\$9,800.00	Catalog	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	\$12,447.00	N/A
Other -- Building Addition Size: 1000.0	\$522,540.00	\$522,540.00	Transmitter room modifications. Includes electrical, demo, abatement. See Wadleigh Quotes attached to all invoices.	\$522,540.00	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.	\$576,324.60	N/A
Sub-total	\$3,586,490.99	\$3,243,716.29	N/A	\$2,848,530.70	N/A
Total for all systems	\$8,184,789.49	\$7,368,788.79	N/A	\$3,081,857.06	N/A

Components

Actual Information
Description

File Name

Removal of Existing Equipment	Component Description: Removal of existing primary transmitter/de-install Amount: \$29,022.00
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	Component Description: Primary Transmitter turnkey. Includes RF system, electrical, installation and proof, freight and CA tax. Amount: \$1,132,625.30
Transmitter Heat Exchanger Coolant Piping	Component Description: Labor, access, wall coring, ceiling tile replacement required to install cooling line Amount: \$53,775.00
Seismic Engineering and Modifications	Information not provided.
Removal of Existing Equipment	Component Description: Aux transmitter equipment removal Amount: \$22,140.00
Transmitter Installation Planning and Installation Drawings	Information not provided.
Remote Control Wiring	Information not provided.
Site Survey	Component Description: Transmitter Site Survey Amount: \$7,884.00

Other -- HVAC Service Type: C Size:30 (Other)	<div> Component Description: Progress payment on HVAC. Turnkey purchase and install. </div> <div> Amount: \$213,317.38 </div>
	<div> Component Description: Progress payment on turnkey HVAC purchase and install. </div> <div> Amount: \$146,986.22 </div>
	<div> Component Description: Progress payment on turnkey install and purchase of HVAC. </div> <div> Amount: \$139,353.20 </div>
Transformer 3 phase/480v - 300 KVA	Information not provided.
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
Other Electrical Service: Aux Transmitter Electrical Installation	<div> Component Description: Electrical and lighting required for new transmission space. New transmitter room layout created several dark spots with insufficient lighting. </div> <div> Amount: \$12,447.00 </div>

Other -- Building Addition
Size: 1000.0

Component Description: Scaffold, demo,
abatement of old
transmitter space
Amount: \$26,941.60

Component Description: Scaffold, demo,
abatement of old
transmitter space
Amount: \$58,510.00

Component Description: Progress payment
on electrical work
required for new
transmitter space.
Amount: \$152,980.94

Component Description: Progress payment
on electrical work
for new transmitter
space.
Amount: \$144,239.17

Component Description: Progress payment
on electrical work
required for new
transmitter space.
Amount: \$139,868.29

UHF - Liquid Cooled Solid
State Transmitter 14 kW

Component Description:

New attachment
amount includes
cover letter as
requested by the
reviewer. Auxiliary
Transmitter
GatesAir Inc 1/3
down payment
due.

Amount:

\$217,786.60

Component Description:

New attachment
includes a cover
letter as requested
by receiver.
Auxiliary
Transmitter
ULXTE-30 1/3
payment due
before shipment
(2nd payment
made).

Amount:

\$217,786.60

Component Description:

Transmitter-
Balance due on
Shipments to date

Amount:

\$140,751.40

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TUP-C3-4-1	\$305,000.00	\$36,500.00		\$0.00	
UHF “Broadband Panel, Side Mount Auxiliary /Interim, 470 horizontally polarized	<i>\$0.00</i>	\$0.00	N/A	N/A	N/A
UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	\$189,500.00	\$0.00	N/A	N/A	N/A
Interim antenna rental and installation - Cost will depend on antenna size and height and /or complexity of tower.	\$115,500.00	\$36,500.00	See attached Sutro Tower quote	N/A	N/A

Primary Antenna TUM-C5SP-14/60H-2-T-R	\$414,515.00	\$556,525.00		\$0.00	
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 splitting /switching for dual feed lines, if applicable	\$126,000.00	\$120,000.00	Catalog	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$233,500.00	Sutro Tower Estimate for KTVU Allocated costs for new Main Antenna combiner System	N/A	N/A

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
Sweep test of existing antenna	\$6,730.00	\$6,400.00	Catalog	N/A	N/A
Auxiliary Antenna TUA-C4SP-12/40U-1-S	\$235,890.00	\$252,400.00		\$0.00	
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 splitting /switching for dual feed lines, if applicable	\$126,000.00	\$120,000.00	Catalog	N/A	N/A

New combiner, cost per channel (without antenna)	\$84,200.00	\$108,000.00	Sutro Tower - KTVU Allocated cost estimate for Aux Antenna Combiner System.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	Catalog	N/A	N/A
Sutro Tower Fees	\$0.00	\$0.00	N/A	N/A	N/A
Sub-total	\$955,405.00	\$845,425.00	N/A	\$0.00	N/A
Total for all systems	\$8,184,789.49	\$7,368,788.79	N/A	\$3,081,857.06	N/A

Components

Information not provided.

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	\$24,822.00	\$67,622.00		\$0.00	
Transformers	<i>\$4,622.00</i>	\$4,622.00	See attached Sutro Tower quote	N/A	N/A
Rigid Transmission Line - copper, 6 1/8"	\$20,200.00	\$63,000.00	See attached Sutro Tower quote	N/A	N/A
Primary Transmission Line	\$18,000.00	\$18,000.00		\$0.00	
RF Optimization	<i>\$18,000.00</i>	\$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	<i>\$18,000.00</i>	\$18,000.00	Optimization of transmission line from transmitter to aux combiner input.	N/A	N/A
Sub-total	\$60,822.00	\$103,622.00	N/A	\$0.00	N/A
Total for all systems	\$8,184,789.49	\$7,368,788.79	N/A	\$3,081,857.06	N/A

Components

Information not provided.

Cost
Information

Tower Equipment and Rigging Costs

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$2,559,225.00	\$2,138,225.00		\$129,868.04	
Sutro Tower Feasibility Studies	<i>\$0.00</i>	\$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
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$0.00	N/A	N/A	N/A

Sutro Tower Fees	\$2,138,225.00	\$2,138,225.00	Sutro Tower - KTVU Allocated costs for tower mapping. See Spreadsheet. Revised based on current cost estimates	\$129,868.04	1.) subtotal overstated by Invoices 7959, 8009, 8058 and 8063. Revised inv's submitted totaling \$166,640.65. Previous submission of invoices totaling \$166,652.49 needs to be deleted. 2.) Revised new cost estimate \$250,000
Sub-total	\$2,559,225.00	\$2,138,225.00	N/A	\$129,868.04	N/A
Total for all systems	\$8,184,789.49	\$7,368,788.79	N/A	\$3,081,857.06	N/A

Components

Actual Information	
Description	File Name
Sutro Tower Feasibility Studies	Information not provided.
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Information not provided.
Sutro Tower Fees	<div> Component Description: KTVU Share of Sutro Tower repack project. Amount: \$126,115.75 </div>

Component Description:	KTVU portion of repack costs- 4th invoice received /paid.
Amount:	\$22,267.36

Component Description:	KTVU portion of repack costs- 6th invoice received /paid.
Amount:	\$11,029.25

Component Description:	Shared Spectrum repacking Costs- revised \$ amount and supporting invoice (Osborn Engineering) per request of reviewer
Amount:	\$14,930.20

Component Description:	Shared Spectrum repacking Costs- revised with supporting invoices (KGA and Cooper White and Cooper) per request of reviewer.
Amount:	\$3,339.18

Component Description:	KTVU portion of repack costs- 2nd invoice received. Resubmitted per reviewer to include correct amount (3,339.18 vs 3,477.14).
Amount:	\$3,339.18

Component Description:	Shared Spectrum repacking Costs-revised \$ amount and supporting invoices per request of reviewer.
Amount:	\$22,255.52

Component Description:	Shared Spectrum repacking Costs
Amount:	\$13,849.68

Component Description:	KTVU portion of repack costs- 1st invoice received. Updated per reviewer to include correct amount on the invoice (126,115.75 vs. 126,198.84)
Amount:	\$126,115.75

Component Description:	Shared Spectrum repacking Costs-revised invoice date and Osborn Engineering quote for fixed fee portion of invoice along with along with remaining 69 invoices and support per request of reviewer.
Amount:	\$126,115.75

Component Description:	Shared Spectrum repacking Costs
Amount:	\$19,908.51

Component Description:	KTVU portion of repack costs- 3rd invoice received /paid. Resubmitted per reviewer's request to correct \$ amt (14,930.20 vs 14,930.25) and include hours and rates per resource of Cooper White and Cooper invoice (see page 30 of attachment)
Amount:	\$14,930.20

Component Description:	KTVU portion of repack costs- 7th invoice received /paid.
Amount:	\$3,752.29

Component Description:	KTVU portion of repack costs- 5th invoice received /paid. Resubmitted per reviewer for correct amt (3,551.50 vs. 3,554.46)
Amount:	\$3,551.50

Cost
Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$385,809.50	\$400,944.50		\$80,667.32	
Additional Field Engineering Service, 20 Days	<i>\$31,800.00</i>	\$31,800.00	RF Engineer on site supervision of transmitter, transmission line, and combiner installations. See attached quote.	\$16,500.00	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	\$7,884.00	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
Prepare request for Special Temporary Authorization	\$4,100.00	\$3,000.00	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
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 engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	Catalog	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
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
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	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.	\$56,283.32	N/A
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
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	\$80,667.32	N/A
Total for all systems	\$8,184,789.49	\$7,368,788.79	N/A	\$3,081,857.06	N/A

Components

Actual Information	
Description	File Name
Additional Field Engineering Service, 20 Days	Component Description: RF engineering Amount: \$16,500.00
RF Exposure Measurements	Information not provided.
Comprehensive coverage verification via field study, if needed	Component Description: Site Survey Amount: \$7,884.00

Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	Information not provided.
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.
Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
Attorney Fees - 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.
Prepare request for Special Temporary Authorization	Information not provided.
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover 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, Construction Permit Application	Information not provided.

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Perform engineering study for new channel assignment and antenna development	Information not provided.	
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	
Prepare and or review reimbursement form	Information not provided.	
Project management of the transition	Component Description: Amount:	Project Management through 3/30/18. Progress payment on Transmission Space Alt Project Mmgt (quote included). \$3,028.43
	Component Description: Amount:	Project Management services thru 7/27/18 \$130.08
	Component Description: Amount:	Project Management/RF Consulting 1/1/19 - 12/31/19 \$6,110.00
	Component Description: Amount:	Project Management/RF Consulting 1/1/18 - 3/4/18 \$21,326.25

	Component Description: Amount:	Project Management 1/1 /18 - 12/31/18 \$25,027.50
	Component Description: Amount:	Project Management services thru 3/30 /18 \$3,028.43
	Component Description: Amount:	Project Management services thru 4/27 /18 \$16,715.70
	Component Description: Amount:	Project Management services thru 6/29 /18 \$661.06
Prepare and File FCC Progress Report	Information not provided.	
Legal Fees - Local SF	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	\$637,037.00	\$636,856.00		\$22,791.00	
Sales Tax	<i>\$284,178.00</i>	\$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	<i>\$5,000.00</i>	\$5,000.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	<i>\$1,500.00</i>	\$1,500.00	N/A	N/A	N/A
Equipment Storage	<i>\$15,000.00</i>	\$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)	\$11,367.00	\$11,367.00	Sutro Tower Estimate of KTVU Allocated costs for equipment removal / Disposal Combiner	\$11,367.00	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	\$11,424.00	N/A	\$11,424.00	N/A
Sub-total	\$637,037.00	\$636,856.00	N/A	\$22,791.00	N/A
Total for all systems	\$8,184,789.49	\$7,368,788.79	N/A	\$3,081,857.06	N/A

Components

Actual Information	
Description	File Name
Sales Tax	Information not provided.
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	Information not provided.
Disposal Costs (for equipment and other waste, net of any salvage value)	<p>Component Description: Transfer and disposal of glycol and mineral oil.</p> <p>Amount: \$11,367.00</p>
Non-zoning permits	Information not provided.
Local Zoning	Information not provided.
FCC Filing Fees - Special Temporary Authorization request	Information not provided.
FCC Filing Fees - Form 2100 license to cover application	Information not provided.

FCC Filing Fees - Form 2100 minor change CP application	Information not provided.
DTV Medical Facility Notification	<div> <div> Component Description: </div> <div>DTV Notification of medical facilities</div> </div> <div> <div> Amount: </div> <div>\$11,424.00</div> </div>

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$8,184,789.49	\$7,368,788.79	\$3,081,857.06

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	<p>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.</p>	
		<ol style="list-style-type: none"> 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.

<p>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.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Angelo Servedio <i>SVP Controller</i></p> <p>11/30/2020</p>

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 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 AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		<ol style="list-style-type: none"> 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.

<p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>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.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Angelo Servedio <i>SVP Controller</i></p> <p>11/30/2020</p>

Attachments