



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **23960** | Service: **DTV** | Call **WSB-TV** | Channel: **32 (UHF)** |
ID: | Sign:
File **0000027561**
Number:
FRN: **0022439848** | Date **07/10**
Submitted: **/2017**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
GEORGIA TELEVISION, LLC	General Manager	+1	tim.	Limited
Doing Business As:	1601 WEST	(404)	mcvey@wsbtv.	Liability
GEORGIA	PEACHTREE	897-	com	Company
TELEVISION, LLC	STREET, N.E.	7000		
	ATLANTA, GA			
	30309			
	United States			

Reimbursement Contact Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Gary Alexander	Gary Alexander	+1 (404)	gary.
<i>Director of Engineering</i>	1601 West Peachtree	897-2210	alexander@wsbtv.
<i>Georgia Television</i>	Street, N.E.		com
<i>Company, LLC</i>	Atlanta, GA 30309		
	United States		

**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		Move to American Tower interim site at 1800 Briarcliff road Go on the air on our new frequency. Prepare our Willoughby Way tower and install new transmission equipment on primary Willoughby Way site and tower.

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	used for maintenance outages
	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	diamond
	Year	2006
	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- 20AT
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	16.1 kW
	Justification for New Transmitter	Our current auxiliary transmitter cannot be re-tuned to the new frequency. We are proposing a new transmitter.

**Auxiliary
Transmitter**

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	150 kVA
	Rigid Conduit and Wiring	Yes

	Size	3 inches
	Length	50.0 feet
	Other Electrical Service	Yes
	Description	Panel and breakers for new 208vac service
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

Auxiliary Transmitter

Other Transmitter Cost Not Listed

Name	Description
Mask Filter	New 8 pole mask filter
Remove old transmitter	Remove air cooled transmitter, mask filter, and dummy load

**Primary
Transmitter**

Add 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	CD-2
	Year	1998
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	50 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	ULXTE-90
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	53 kW
	Justification for New Transmitter	Current Tube transmitter cannot be re-tuned. Although tube transmitters are available, they are far more expensive to purchase and install. The attached quote from Comark doesn't include spare parts kits

**Primary
Transmitter**

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	Yes
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	300 kVA
	Rigid Conduit and Wiring	Yes
	Size	3 inches
	Length	50.0 feet
	Other Electrical Service	Yes
	Description	208VAC breakers and panel
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?	Yes
	Size	250.0 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

**Primary
Transmitter**

Other Transmitter Cost Not Listed

Name	Description
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Transmitter removal	Removal of transmitter, mask filter, reject load, dummy load, cooling pipes, pump modules, flow meters, regulators, and dry coolers
Mask Filter	New 8 pole mask filter for transmitter

**Interim
Transmitter**

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXT-60
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	60 kW
	Justification for New Transmitter	New transmitter is needed while our facility is being rebuilt.

**Interim
Transmitter**

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	Yes
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	300 kVA
	Rigid Conduit and Wiring	Yes
	Size	3 inches
	Length	75.0 feet
	Other Electrical Service	Yes

	Description	Electrical for pump modules, HVAC, Loads, Generator, lighting, and UPS
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	250.0 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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	Yes

Interim Transmitter

Other Transmitter Cost Not Listed

Name	Description
Lease for interim facility	Mandatory 5 year lease for interim facility
Building improvements for Interim facility	Ice Bridge, concrete pad, utility outlets
Inner city relay	To get the signal from the studio to the new interim transmitter site a new inner city relay will be needed
Project management	150 / hour 160 hours

Remote control and monitoring	Statmon remote control
90kw mask filter	New mask filter will be needed
Legal form 2100	CP application 2100 2100 license to cover app 2250 Prepare STA 3500 Filing fee 2100 \$325 Filing fee STA 190

Antennas

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

**Auxiliary
Antenna****Existing Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Standby antenna
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW

Manufacturer	
Model	TFU-30DSC-R O4
Year	1998

**Auxiliary
Antenna****New Antenna Costs**

Section	Question	Response
New Antenna Description	Use	Auxiliary (Backup)
	Description of Use	Standby antenna
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels/Bays	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Design power capacity in use	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW
	Manufacturer	

Model	ATW24HS3- HTO-32H
Year	2017
Justification for New Antenna	Our current single channel slotted antenna is not tunable. It is only good for channel 39.

Auxiliary 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	6 1/8 inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes

Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes
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**Auxiliary
Antenna**

Other Antenna Cost Not Listed

Information not provided.

**Primary
Antenna**

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	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- 30GTH-R O4D39
Year	1996

Primary
Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	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	ATW24HS3- HTO-32H
Year	2017
Justification for New Antenna	Our current single channel slotted antenna is not tunable. It is only good for channel 39.

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	6 1/8 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
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**Primary
Antenna**

Other Antenna Cost Not Listed

Information not provided.

**Interim
Antenna**

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Lease New
	Ownership	Leased
	Owner	American Tower
	Is antenna shared?	Yes
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Elliptical
	Type	Broadband Panel
	Number of Stations Supported	4
	Number of Panels/Bays	14
	Lower Limit	430.00 MHz
	Upper Limit	600.00 MHz
	Design power capacity in use	69.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW
	Manufacturer	
	Model	TUM-AP-O4-14/56H-2-T

Year	2017
Justification for New Antenna	Minimizing OTA disruption for the nine existing and one new TV customer operating on the Briarcliff 2 site, ensuring that we meet the Phase 5 cut-over completion date, and minimizing the overall project costs.

Interim 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	4
	Frequencies of channels supported	RF channel
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	No
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	B

	Feed Line Size	8 3/16 inches
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?	Yes

Enter a list of RF channel numbers.

RF Channel Number
36
19
18
32

**Interim
Antenna**

Other Antenna Cost Not Listed

Name	Description
Combiner Installation	Removal and installation of new combiner module

Transmission Line

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

**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	8 3/16 inches
	Segment Length	20'
	Other Segment Length	
	Number of parallel runs	2
	Length	1275 feet per run
	Justification for New Transmission Line	2550 Refurbished line with connectors replaced. This will serve as input to new broad band antenna being installed for repacked broadcasters

Interim
Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Refurbish existing line	Refurbish (new connectors existing line)

Tower Equipment And Rigging Costs

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

Primary Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	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?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1031790
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	33° 45' 51.7" N-
	Longitude (NAD83)	084° 21' 41.7" W-
	Overall Structure Height	1074.79 feet
	Support Structure Height	898.94 feet
	Ground Elevation Above Mean Sea Level (AMSL)	973.09 feet

	Structure Type	TOWER - Free Standing or Guyed Structure
	Tower Owner	Georgia Television, LLC
	Date Constructed	03/31/1957

**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
73978	WSB-FM	FM

Other Types of Users

Users
ATT cellular

Primary Tower

Tower Modification Costs

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	Study needed for undocumented /poorly documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	Major Reinforcements needed

**Primary
Tower**

Tower Rigging Costs

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

**Primary
Tower**

Other Tower Expenses Not Listed

Name	Description
Reinforce guy anchors	The soil around the guy anchors is not sufficiently dense to support a "G" rated tower.
Replace Mast	Replace field welded mast to a "lattice" type to reduce wind loading
Structural mods	Horizontal girts, diagonals and over 200 bolts and holes. Reinforce guy stations, replace Mast.
Antenna removal and replacement	Rig tower remove antennas and replace with new antennas

**Outside
Professional**

Section	Question	Response
Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	200
	Explanation	Supervisor for 5 weeks to oversee the interim transmission site and main site projects.
Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	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	1
	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	1
	NEPA Section 106 environmental review	Yes
	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	5
	Justification	Interference studies for adjacent channel market (Macon)

Outside Professional Services Costs
Other Professional Services Expenses Not Listed

Name	Description
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Consultant services

Consultant services to recommend and determine antenna, transmitter, antenna, interference and coverage areas

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
Interim delivery and handling fees	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. This could cover forklifts, labor and costs incurred for the unloading of line, antenna delivery and/or other building material.
Interim site security and theft prevention	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. Site security for installation and storage of Transmission line and materials for 9 days X 12 hours. This is due to the material value
Interim system waste management	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. Dumpster fees for construction waste
Interim ground and building permits	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. The generation of a permitting drawing package for one (1) broadcasters /customers.
Interim Tower permit drawing package	The generation of a permitting drawing package for one (1) broadcasters /customers.
Interim site RF system test	Testing of the combiner to ensure all frequencies are tuned for optimal patterns.
Interim site coordination meeting	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. Site coordination meetings with all broadcasters, contractors and vendors involved with the site project.
Interim Project management	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. Project management fee for pre-construction services

Interim tower load study	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. Structural analysis to access the structural capacity and modifications needed to accommodate the repacked equipment.
Interim tower mapping	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study
Interim tower reinforcement	Interim cost provided by American Tower and represent a fraction shared by 4 tenants for tower reinforcement
Interim transmission line sweep	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. RF system testing for two (2) transmission lines.
Interim transistion timing coordination	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. Coordination and transition planning with all parties onsite and management of the timelines and schedules occurring during the repack.
Interim engineering study for channel assignment	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. Perform engineering study for new channel assignment and antenna development
Interim RF exposure measurements	Interim cost provided by American Tower and represent a fraction shared by 4 tenants Post-construction measurements have customarily been required or conducted.
Interim construction manager	Interim cost provided by American Tower and represent a fraction shared by 4 tenants. (80) hours on Modification project management and RF installation project management for a total of twenty (30) days.

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
Interim Transmitter ULXT-60	\$3,100,593.00	\$2,228,303.89		\$0.00	
3" Rigid Conduit and Wiring (Cost per foot)	\$3,900.00	\$3,675.00	N/A	N/A	N/A
Remote control and monitoring	<i>\$14,843.00</i>	\$14,843.00	N/A	N/A	N/A
Transformer 3 phase/480v - 300 KVA	\$36,800.00	\$0.00	included in transmitter estimate	N/A	N/A
UHF inside RF system including switching	\$147,500.00	\$140,000.00	N/A	N/A	N/A
Other -- Building Addition Size: 250.0	<i>\$10,000.00</i>	\$10,000.00	Drywall, ceiling, lighting	N/A	N/A
Lease for interim facility	<i>\$570,000.00</i>	\$570,000.00	9500 per month to American Tower Corp. for interim facility at Briarcliff. Minimum 5 year lease	N/A	N/A
Other -- HVAC Service Type: C Size:30 (Other)	<i>\$87,000.00</i>	\$87,000.00	widely estimate for 25 tons of ac at interim site	N/A	N/A

Building improvements for Interim facility	\$85,000.00	\$85,000.00	Paint, drywall work, ice bridge, concrete pad for transformers, generators, and dry coolers	N/A	N/A
Inner city relay	\$90,000.00	\$90,000.00	Monthly cost spread out over the term of the lease using a ATT fiber feed	N/A	N/A
Project management	\$24,000.00	\$24,000.00	N/A	N/A	N/A
90kw mask filter	\$90,000.00	\$90,000.00	A new mask filter will be needed	N/A	N/A
Legal form 2100	\$7,250.00	\$7,250.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	\$1,788,000.00	\$962,835.89	N/A	N/A	N/A
Service entrance 3 phase/800 amp /208 volt	\$14,400.00	\$13,700.00	Trenching, conduit and hook up to main transformer	N/A	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A

Other Electrical Service: Electrical for pump modules, HVAC, Loads, Generator, lighting, and UPS	\$93,700.00	\$93,700.00	N/A	N/A	N/A
Primary Transmitter ULXTE-90	\$1,998,000.00	\$1,729,481.76		\$0.00	
Service entrance 3 phase/800 amp /208 volt	\$14,400.00	\$13,700.00	N/A	N/A	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	\$1,788,000.00	\$1,559,031.76	Quote from Gates Air	N/A	N/A
Transmitter removal	\$5,000.00	\$5,000.00	N/A	N/A	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$2,600.00	\$2,450.00	N/A	N/A	N/A
Other Electrical Service: 208VAC breakers and panel	\$8,000.00	\$8,000.00	N/A	N/A	N/A
Other -- Building Addition Size: 250.0	\$15,000.00	\$15,000.00	N/A	N/A	N/A
Mask Filter	\$90,000.00	\$90,000.00	N/A	N/A	N/A

Transformer 3 phase/480v - 300 KVA	\$36,800.00	\$0.00	N/A	N/A	N/A
Auxiliary Transmitter ULXTE-20AT	\$809,210.00	\$687,842.00		\$0.00	
Transformer 3 phase/480v - 150 KVA	\$25,550.00	\$0.00	N/A	N/A	N/A
Mask Filter	\$31,000.00	\$31,000.00	N/A	N/A	N/A
Remove old transmitter	\$2,500.00	\$2,500.00	N/A	N/A	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A
Other Electrical Service: Panel and breakers for new 208vac service	\$25,360.00	\$25,360.00	N/A	N/A	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$2,600.00	\$2,450.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$590,232.00	N/A	N/A	N/A
Sub-total	\$5,907,803.00	\$4,645,627.65	N/A	\$0.00	N/A
Total for all systems	\$10,216,756.00	\$6,881,320.65	N/A	\$0.00	N/A

Components

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 TUM-AP-O4-14 /56H-2-T	\$1,209,780.00	\$164,290.00		\$0.00	
New combiner, cost per channel (without antenna)	\$84,200.00	\$66,000.00	N/A	N/A	N/A
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	\$18,950.00	\$18,000.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized	\$1,090,000.00	\$65,390.00	N/A	N/A	N/A
Combiner Installation	<i>\$9,900.00</i>	\$9,900.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$5,000.00	N/A	N/A	N/A
Primary Antenna ATW24HS3-HTO-32H	\$266,030.00	\$224,100.00		\$0.00	

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	\$247,000.00	\$206,000.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Auxiliary Antenna ATW24HS3-HTO-32H	\$253,440.00	\$251,100.00		\$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	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, horizontally polarized	\$206,000.00	\$206,000.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	N/A	N/A

Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	N/A	N/A
Sub-total	\$1,729,250.00	\$639,490.00	N/A	\$0.00	N/A
Total for all systems	\$10,216,756.00	\$6,881,320.65	N/A	\$0.00	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	\$950,850.00	\$66,000.00		\$0.00	
Rigid Transmission Line - copper, 8 3/16"	\$884,850.00	\$0.00	N/A	N/A	N/A
Refurbish existing line	<i>\$66,000.00</i>	\$66,000.00	N/A	N/A	N/A
Sub-total	\$950,850.00	\$66,000.00	N/A	\$0.00	N/A
Total for all systems	\$10,216,756.00	\$6,881,320.65	N/A	\$0.00	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	\$1,222,801.00	\$1,190,001.00		\$0.00	
Tall Tower (greater than 500')	\$210,500.00	\$200,000.00	N/A	N/A	N/A
Antenna removal and replacement	<i>\$120,000.00</i>	\$120,000.00	Verbal quote from ERI	N/A	N/A
Structural mods	<i>\$150,000.00</i>	\$150,000.00	New "buried" mast to support antenna will require new tower section and extensive welding	N/A	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$25,000.00	N/A	N/A	N/A
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	N/A	N/A
Reinforce guy anchors	<i>\$120,000.00</i>	\$120,000.00	N/A	N/A	N/A
Replace Mast	<i>\$175,001.00</i>	\$175,001.00	N/A	N/A	N/A

Sub-total	\$1,222,801.00	\$1,190,001.00	N/A	\$0.00	N/A
Total for all systems	\$10,216,756.00	\$6,881,320.65	N/A	\$0.00	N/A

Components

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	\$230,895.00	\$165,650.00		\$0.00	
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	N/A	N/A	N/A
RF Exposure Measurements	\$21,050.00	\$15,000.00	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	N/A	N/A
Consultant services	<i>\$24,400.00</i>	\$24,400.00	N/A	N/A	N/A
Additional Field Engineering Service, 5 Days	<i>\$10,000.00</i>	\$10,000.00	N/A	N/A	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$4,000.00	N/A	N/A	N/A

Project management of the transition	\$31,600.00	\$45,000.00	N/A	N/A	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	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	N/A	N/A	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	N/A	N/A
NEPA Section 106 environmental review, if needed	\$6,310.00	\$6,000.00	N/A	N/A	N/A

Comprehensive coverage verification via field study, if needed	\$84,200.00	\$15,000.00	N/A	N/A	N/A
Sub-total	\$230,895.00	\$165,650.00	N/A	\$0.00	N/A
Total for all systems	\$10,216,756.00	\$6,881,320.65	N/A	\$0.00	N/A

Components

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	\$175,157.00	\$174,552.00		\$0.00	
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	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
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
Interim system waste management	<i>\$2,667.00</i>	\$2,667.00	ATC estimate	N/A	N/A
Interim tower reinforcement	<i>\$35,000.00</i>	\$35,000.00	ATC estimate	N/A	N/A
Interim transmission line sweep	<i>\$5,000.00</i>	\$5,000.00	ATC estimate	N/A	N/A
Equipment Storage	<i>\$7,500.00</i>	\$7,500.00	N/A	N/A	N/A
Interim site security and theft prevention	<i>\$1,800.00</i>	\$1,800.00	ATC estimate	N/A	N/A
Non-zoning permits	<i>\$1,501.00</i>	\$1,501.00	N/A	N/A	N/A
Interim tower load study	<i>\$6,517.00</i>	\$6,517.00	ATC estimate	N/A	N/A

Interim delivery and handling fees	\$8,333.00	\$8,333.00	ATC estimate	N/A	N/A
Equipment Delivery and Handling Charges	\$12,000.00	\$12,000.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	\$15,000.00	\$15,000.00	N/A	N/A	N/A
Interim transistion timing cooridnation	\$2,500.00	\$2,500.00	ATC estimate	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
Interim ground and building permits	\$4,700.00	\$4,700.00	ATC estimate	N/A	N/A
Local Zoning	\$1,501.00	\$1,501.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$6,000.00	\$6,000.00	Construction and electronic disposal and recycle	N/A	N/A
MVPD Notification of Channel Change	\$2,001.00	\$2,001.00	N/A	N/A	N/A
Interim Tower permit drawing package	\$4,700.00	\$4,700.00	ATC estimate	N/A	N/A
Interim site RF system test	\$5,000.00	\$5,000.00	ATC estimate	N/A	N/A

Interim site coordination meeting	\$2,500.00	\$2,500.00	ATC estimate	N/A	N/A
Interim Project management	\$9,480.00	\$9,480.00	ATC estimate	N/A	N/A
Interim tower mapping	\$8,267.00	\$8,267.00	ATC estimate	N/A	N/A
Interim engineering study for channel assignment	\$5,000.00	\$5,000.00	ATC estimate	N/A	N/A
Interim RF exposure measurements	\$5,000.00	\$5,000.00	ATC estimate	N/A	N/A
Interim construction manager	\$10,000.00	\$10,000.00	ATC estimate	N/A	N/A
Sub-total	\$175,157.00	\$174,552.00	N/A	\$0.00	N/A
Total for all systems	\$10,216,756.00	\$6,881,320.65	N/A	\$0.00	N/A

Components

Information not provided.

Cost Information	Grand Total		
		Predetermined Cost Estimate	Estimated Cost
			Actual Cost
	Total for all systems	\$10,216,756.00	\$6,881,320.65
			\$0.00

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>Arthur Rogers <i>Director of Programming</i></p> <p>07/10/2017</p>

Attachments