

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: File Number:	51101 000002	Service: DTV	Call Sign:	KOZJ	Channel: 35 (UHF)
	02487056	Date	12/20		
		Submitted:	/2017		

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
BOARD OF GOVERNORS OF MISSOURI STATE UNIVERSITY Doing Business As: BOARD OF GOVERNORS OF MISSOURI STATE UNIVERSITY	Tammy Wiley 901 S. NATIONAL AVE. SPRINGFIELD, MO 65897 United States	+1 (417) 836- 5878	TAMMYWILEY@MISSOURISTATE. EDU	Government Entity

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer	Preparer Contact Name and Infe	ormation		
Contact Information	Applicant	Address	Phone	Email

Matthew Anderson Sanderford , Jr President Marsand, Inc. 211 Pack Saddle Trail Weatherford, TX 76088-8646	Matthew Sanderford 211 Pack Saddle Trail Weatherford, TX 76088 United States	+1 (817) 783- 5566	engineering@marsand. 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	See attached station transition plan.

Transmitters	Section	Question	Response
	Transmitter Related Expenses	Do you have transmitter related expenses?	Yes

Primary	Existing Transmitter Information					
Transmitter	Section	Question	Response			
	Existing Transmitter Description	Type of change	Purchase New			
		Use	Primary (Main)			
		Description of Use	N/A			
		Ownership	Owned			
		Owner	N/A			
		Site	N/A			
		Is this transmitter currently shared with another station?	No			
		Is this transmitter currently in operating condition?	Yes			
	Existing Transmitter	Manufacturer				
	Manufacturer and Type	Model	DHD20P1			
		Year	2003			
		Туре	Solid State			
		Solid State Cooling	Air Cooled			
		Solid State Power Capacity	5.5 kW			

Existing Transmitter Information

Primary	New Transmitter Costs					
Transmitter	Section	Question	Response			
	New Transmitter	Use	Primary (Main)			
		Change Type	Purchase New			
		Is this a request for upgraded equipment?	No			
		Manufacturer				
		Model	THU9-8EVO			
		Transmitter Type	Solid State			
		Solid State Cooling	Liquid Cooled			
		Solid State Power capacity	13 kW			
		Justification for New Transmitter	Existing transmitter manufacturer will not support retuning to new channel and current transmitter does not have sufficient output power.			

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	No
	Description	N/A
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 Other Transmitter Cost Not Listed

Transmitter Information not provided.

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

Primary	Existing Antenna Information			
Antenna	Section	Question	Response	
	Existing Antenna Description	Type of change	Purchase New	
		Antenna Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is the existing antenna shared with another station or stations?	No	
		Is the existing antenna directional?	No	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	No	
	Existing Antenna	Class	Full Power	
	Manufacturer and Type	Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels	N/A	
		Design power capacity in use	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	55.0 kW	
			-	

Manufacturer	
Model	B16UOM
Year	1984

Primary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	No	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna Manufacturer and Types	Class	Full Power	
		Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	Broadband Slot	
		Number of Stations Supported	2	
		Number of Panels/Bays	16	
		Lower Limit	500.00 MHz	
		Upper Limit	626.00 MHz	
		Design power capacity in use	59.0 %	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	68.0 kW	
		Manufacturer		

Model	RD-16RFS (OM) -500626-SI
Year	2017
Justification for New Antenna	Existing CH25 antenna wi not suppor CH35. Broadband replacemen allows reus of existing aperture and main transmission line run wit no structure modificatio

Primary Other Antenna Costs

Filliary			
Antenna	Section	Question	Response
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
		Туре	
		Number of channels supported	N/A
		Frequencies of channels supported	N/A
		Frequency	N/A
		Do you need a combiner output splitter /switcher for dual feed lines?	N/A
	Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
		Broadband or Single Channel?	Broadband
		Feed Line Size	3 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?	Yes
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Primary Other Antenna Cost Not Listed

Antenna Information not provided.

Transmission ⁹	Sention	Question	Response
	Transmission Line Related Expenses	Do you have transmission line related expenses?	No

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

Primary Tower	Add 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?	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	No		
		Is tower documented for structural analysis?	No		
		Is tower compliant with Rev G?	No		
	Existing Tower Structure	Do you have a tower registration number?	Yes		
	Registration	ASR Number	No No Yes 1012933 37° 04' 34.9" N-		
	Coordinates (<u>NAD83</u> (North American Datum of 1983))	Latitude (NAD83)	37° 04' 34.9" N-		
		Longitude (NAD83)	094° 32' 16.4" W-		
		Overall Structure Height	981.94 feet		

Ground Elevation Above Mean Sea Level (AMSL)	1042.97 feet
Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	SpectraSite Communications LLC. through American Towers, LLC.
Date Constructed	01/01/1965

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
18283	KODE-TV	DTV

Primary 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:	Serious Reinforcements needed

Primary Tower Rigging Costs

Tower

Tower

Section

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

Other Tower Expenses Not Listed Primary Name Description Tower owner required generation of a Ground and Building AE Permit Drawing Package construction drawing package Structural Engineering Tower Load Study Tower owner required Rigorous Structural analysis **Tower Permit Drawing Package** Tower owner required generation of a construction drawing package Antenna Change Out Cost for removing old antenna and install new antenna

Tower

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	100
		Explanation	The station has multiple transmitter sites (2 TV) and operates with minimal staff. It does not have personnel available for any of these tasks, nor is the staff trained to provide any of these services.
	Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
		Prepare engineering section of Form FCC Construction Permit Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare engineering section of Form FCC License to Cover Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare request for Special Temporary Authority	No
		Quantity	N/A

	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
Attorney and Other Outside Consulting	Prepare and file Form FCC Construction Permit Application	Yes
Services	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	Negotiation of Lease and other Matter for Shared Locations	Yes
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	No
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A

Outside Professional	Other Professional Services Expenses Not Listed			
	Services Costs	Description		
	Site Survey	Site visit for specifying the final equipment needs and installation planning.		
	Tower Owner Project Managment	Tower owner required project management.		

Other Professional Services Expenses Not Listed

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	No
		Non-zoning permits	No
		BLM or NFS Coordination	No
		FCC Construction Permit Minor Change	No
		FCC License to Cover Application	No
		FCC Special Temporary Authority Application	No
	Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
		Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	No
		Does this relocation require Equipment Storage?	No
		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

Expenses Information not provided.

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 THU9-8EVO	\$494,500.00	\$470,000.00		\$0.00	
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	\$494,500.00	\$470,000.00	Final quote not received. Maximum estimate used in its place.	N/A	N/A
Sub-total	\$494,500.00	\$470,000.00	N/A	\$0.00	N/A
Total for all systems	\$2,041,645.00	\$1,025,928.00	N/A	\$14,799.22	N/A

Components

Antennas

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 Antenna RD- 16RFS(OM) -500626-SL	\$71,330.00	\$67,400.00		\$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	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 16 bay,, 68 kW input, horizontally polarized	\$50,000.00	\$50,000.00	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, broadband, at antenna input, per 3 1/8. feedline (if needed)	\$9,340.00	\$6,000.00	N/A	N/A	N/A
Sub-total	\$71,330.00	\$67,400.00	N/A	\$0.00	N/A

Components

Cost Transmission Line

Information 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 Primary Tower	Predetermined Cost Estimate \$1,388,425.00	Estimated Cost \$382,798.00	Estimated Cost Justification	Actual Cost \$0.00	Actual Cost Justification
GTOWER					
Antenna Change Out	\$85,000.00	\$85,000.00	Quote attached from PCI	N/A	N/A
Tower Permit Drawing Package	\$4,700.00	\$4,700.00	Cost estimate provided by tower owner.	N/A	N/A
Ground and Building AE Permit Drawing Package	\$4,700.00	\$4,700.00	Cost estimate provided by tower owner.	N/A	N/A
Serious tower reinforcement /modifications	\$1,052,000.00	\$275,000.00	Cost estimate provided by tower owner.	N/A	N/A
Structural Engineering Tower Load Study	\$5,225.00	\$5,225.00	Cost estimate provided by tower owner.	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$0.00	Tower Rigging cost is include in the tower owner's estimate reinforcement / modifications.	N/A	N/A

Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$8,173.00	Cost estimate provided by tower owner.	N/A	N/A
Sub-total	\$1,388,425.00	\$382,798.00	N/A	\$0.00	N/A
Total for all systems	\$2,041,645.00	\$1,025,928.00	N/A	\$14,799.22	N/A

Components

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	\$61,840.00	\$80,730.00		\$14,799.22	
Tower Owner Project Managment	\$9,480.00	\$9,480.00	Cost provided by tower owner	N/A	N/A
Site Survey	\$10,000.00	\$10,000.00	N/A	N/A	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$25,000.00	After consultation with legal counsel, the station is estimating lease negotiation costs of \$25,000 for amending the current site lease with ATC and for negotiating a Master Agreement with ATC relating to the overall tower changes necessary for the station's repack.	\$1,349.00	N/A

Attorney Fees	\$5,260.00	\$5,000.00	N/A	\$580.00	N/A
- Prepare and File FCC Form 2100 (main), Construction Permit Application					
Project management of the transition	\$15,800.00	\$15,000.00	N/A	\$3,106.75	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,250.00	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
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
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$1,339.50	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$6,173.97	N/A

Sub-total	\$61,840.00	\$80,730.00	N/A	\$14,799.22	N/A
Total for all systems	\$2,041,645.00	\$1,025,928.00	N/A	\$14,799.22	N/A

Components

Actual Information Description	File Name	
Tower Owner Project Managment	Information not provided.	
Site Survey	Information not provided.	
Attorney Fees - Negotiation of lease and other matters for shared locations	Component Description: Amount:	Review of shared site issues \$242.50
	Component Description:	Review of Tower Master Services Agreement
	Amount:	\$242.50
	Component Description:	Review of Tower Master Services
	Amount:	Agreement \$864.00
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description:	Legal Fees for Construction
	Amount:	Permit application \$580.00

transition		
transition	Component Description:	Portion of bill for
		Project
		Management-
		KOZJ
	Amount:	\$237.50
	Component Description:	Project
		Management Cos
	Amount:	\$194.00
	Component Description:	Portion of the bill
		for KOZJ Project
		Management
	Amount:	\$24.25
	Component Description:	Portion of the bill
		for KOZJ Project
		Management
	Amount:	\$54.00
	Component Description:	Portion of bill for
		Preliminary Project
		Management.
		Invoice updated
	Amount:	per FCC inquiry.
	Amount:	\$2,500.00
	Component Description:	Portion of bill for
		KOZJ Project
	Amount:	Management \$97.00
	Amount.	φ97.00
Prepare engineering section of FCC Form 2100		
(main), Construction Permit	Component Description:	Portion of bill for
(main), Construction remain		engineering section
Application		of CP application.
		Invoice updated per FCC inquiry.

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare and or review reimbursement form	Component Description:	Prepare or review reimbursement form.
	Amount:	\$654.00
	Component Description:	Prepare or review reimbursement form. Invoice attachment provides additiona support per FCC inquiry.
	Amount:	\$588.50
	Component Description:	Prepare or review reimbursement form.

Perform engineering study for new channel assignment and antenna development	Component Description:	Portion of bill for Engineering Study. Invoice updated per FCC inquiry.
	Amount:	\$4,500.00
	Component Description:	Engineering
		Services for
		channel
		assignment and
		antenna
		development.
		Invoice updated
		per FCC inquiry.
	Amount:	\$1,673.97

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	\$25,550.00	\$25,000.00		\$0.00	
MVPD Notification of Channel Change	\$11,000.00	\$11,000.00	Send notification to cable companies, MVPD locations, follow up on signal reception after repack switch.	N/A	N/A
Develop and air announcement of upcoming channel change	\$1,000.00	\$1,000.00	Spot creation, talent, production.	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$2,000.00	\$2,000.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
Sub-total	\$25,550.00	\$25,000.00	N/A	\$0.00	N/A
Total for all systems	\$2,041,645.00	\$1,025,928.00	N/A	\$14,799.22	N/A

Components

Grand Total				
	Predetermined Cost Estimate	Estimated Cost	Actual Cost	
Total for all systems	\$2,041,645.00	\$1,025,928.00	\$14,799.22	
		Predetermined Cost Estimate	Predetermined Cost Estimate Estimated Cost	

Reimbursem	entestiatus	Response
	The facility has ceased operating on its pre- auction channel.	No
	Construction of final facilities or all necessary modifications are complete.	No
	All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator.	No

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
		 The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 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.

	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.	
an aut name	are, under penalty of perjury, that I am thorized representative of the above- d applicant for the Authorization(s) ied above.	James Baker , Dr VP, Missouri State University

Attachments