

## **TECHNICAL EXHIBIT**

Displacement Application for Modification  
of Digital Television Translator Station  
prepared for

Rocky Mountain Public Media, Inc.  
K42JR-D Paonia, Colorado  
Facility ID 16524  
CH 42 (digital) .1 kW

Rocky Mountain Public Media, Inc (formerly Rocky Mountain Public Broadcasting, Inc) is the licensee of digital television translator station K42JR-D, Channel 42, Paonia, Colorado, File BLTT20110708ABY, Facility ID 16524. K42JR-D is being displaced and is hereby applying during the Special Displacement Window for a new digital channel (35).

As proposed herein K42JR-D will operate at its existing antenna location on Channel 35. The current antenna is a Scala 4DR-4-2HW UHF directional antenna mounted on a tower having FCC antenna structure registration number (ASRN) 1239990.

### **Contour Overlap**

The antenna location, pattern and orientation on the new channel will remain unchanged, thereby insuring that there will be contour overlap with the displaced facility.

### **Interference Analysis, International Coordination, etc.**

The results of evaluating the proposed facility for interference using the FCC TV Study program indicate that the station will comply with the FCC's interference protection requirements. These results also indicate that the station complies with the FCC's requirements for international coordination, FCC monitoring station protection, and AM transmitter protection. The proposed facility is well outside the range for coordination with the NTIA regarding the Table Mountain Quiet Zone. The TV Study results are attached to this exhibit.

### **Environmental Considerations**

The proposed facility was evaluated for human exposure to RF energy using the procedures described in FCC OET Bulletin Number 65. Based on OET-65 equations and using .3 as the relative field strength in a downward direction<sup>1</sup>, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 2.48 uW/cm<sup>2</sup>,

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<sup>1</sup> The elevation pattern for a Scala 4DR-4-2HW antenna shows <=.3 relative field value from 30 to 90 degrees below horizontal.

which is 0.62% of the general population/uncontrolled maximum permitted exposure limit. Thus, the public will not be exposed to RF levels attributable to the proposed facility in excess of the FCC's guidelines. The applicant will reduce power or cease operation to protect workers having access to the tower. There will be no change in overall structure height. Thus the proposed facility is categorically excluded from environmental processing.

Exhibit prepared by:

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Study created: 2018.04.25 16:23:21

Study build station data: LMS TV 2018-04-19

Proposal: K42JR-D D35 (D42) LD LIC PAONIA, CO  
File number: BLDTT20110708ABY  
Facility ID: 16524  
Station data: LMS TV 2018-04-19  
Record ID: 6a4315f2ffdf428f9137cf6212b6c0ea  
Country: U.S.

Build options:  
Protect pre-transition records not on baseline channel  
Protect baseline records from LPTV

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K34LM-D	D34	LD	CP	ASPEN, CO	BNPDTL20091028ABN	81.3 km
No	K34KM-D	D34	LD	LIC	BASALT, CO	BLDTT20091221ABG	72.3
No	KWGN-TV	D34	DT	LIC	DENVER, CO	BLCDT20091209ACA	229.4
No	K34IA-D	D34	LD	LIC	DOVE CREEK, ETC, CO	BLDTT20120615ABN	165.0
No	K34LC-D	D34	LD	LIC	RIFLE, ETC., CO	BLDTT20110928AGZ	77.6
No	K51DI-D	D34	LD	APP	SARGENTS, CO	BLANK0000034297	123.8
No	K35IX-D	D35	LD	LIC	BASALT, CO	BLDTT20091221ABH	72.3
No	K35CH-D	D35	LD	LIC	CORTEZ, MANCOS, ETC, CO	BLDTT20090522ABN	173.1
No	K35LJ-D	D35	LD	LIC	CRESTED BUTTE, CO	BLDTT20120522ADQ	59.6
No	KCNC-TV	D35	DT	LIC	DENVER, CO	BLCDT20090611AAQ	229.6
No	KREZ-LD	D35	LD	APP	DURANGO, CO	BLANK0000051726	180.4
No	K43AB-D	D35	LD	APP	GRAND JUNCTION, CO	BLANK0000052948	54.2
No	K35DZ-D	D35	LD	LIC	LA JUNTA, CO	BLDTT20130124AEN	369.0
No	KNME-TV	D35	DT	LIC	ALBUQUERQUE, NM	BLEDT20030218BNH	420.8
No	K25KX-D	D35	LD	APP	BOULDER, UT	BLANK0000052968	344.9
No	K15HZ-D	D35	LD	APP	CAINEVILLE, UT	BLANK0000052893	286.5
No	K35IK-D	D35	LD	LIC	DUCHESNE, UT	BLDTT20100111AFV	274.0
No	K35DW	N35	TX	LIC	EMERY, UT	BLTT19950202IF	305.3
No	K27IT-D	D35	LD	APP	ESCALANTE, UT	BLANK0000052962	363.6
No	K35JK-D	D35	LD	LIC	FOUNTAIN GREEN, UT	BLDTT20100914AHS	345.9
No	K21ID-D	D35	LD	APP	FREMONT, UT	BLANK0000052804	348.2
No	K50FZ-D	D35	LD	APP	HANKSVILLE, UT	BLANK0000052904	269.7
No	K35IJ-D	D35	LD	LIC	HANNA & TABIONA, UT	BLDTT20100111AFW	313.8
No	K35EW-D	D35	LD	LIC	HEBER/MIDWAY, UT	BLDTT20110202ABV	376.1
No	K35LC-D	D35	LD	LIC	HELPER, UT	BLDTT20120614AAU	288.0
No	K35KL-D	D35	LD	LIC	MANILA, ETC, UT	BLDTT20110406ABR	275.8
No	KUCW	D35	DT	CP	OGDEN, UT	BLANK0000029841	435.6
No	KUCW	D35	DT	BL	OGDEN, UT	DTVBL1136	435.6
No	K35JI-D	D35	LD	LIC	ORANGEVILLE, UT	BLDTT20100107AAU	302.8
No	K35IS-D	D35	LD	LIC	PEOA, OAKLEY, UT	BLDTT20090624ADY	377.0
No	K35DX-D	D35	LD	LIC	RURAL SEVIER COUNTY, UT	BLDTT20100108ABZ	359.9
No	K35JJ-D	D35	LD	LIC	SCOFIELD, UT	BLDTT20100222AAU	316.1
No	K35JM-D	D35	LD	LIC	TEASDALE, UT	BLDTT20120806AAG	340.8
No	K35IQ-D	D35	LD	LIC	VERNAL, ETC., UT	BLDTT20150205ABO	208.4
No	K36DB-CD	D36	DC	LIC	AVON, VAIL, CO	BLDTA20120615ABO	128.5
No	K36GX-D	D36	LD	LIC	BASALT, CO	BLDTT20091221ABI	72.3
No	KDVR	D36	DT	CP	DENVER, CO	BLANK0000025684	229.1
No	KDVR	D36	DT	APP	DENVER, CO	BLANK0000034058	229.1
No	KDVR	D36	DT	BL	DENVER, CO	DTVBL126	229.1
No	K36LM-D	D36	LD	LIC	GRAND JUNCTION, CO	BLDTT20150130AQQ	83.8
No	K36LX-D	D36	LD	LIC	JACKS CABIN, CO	BLDTT20120420AAO	65.6
No	KXHD-LP	N36z	TX	LIC	MONTROSE, CO	BLTTL20091006ADG	77.6
No	K36AF-D	D36	LD	LIC	NEW CASTLE, CO	BLDTT20150129AAL	77.6
No	K36GQ-D	D36	LD	LIC	PARLIN, CO	BLDTL20100527AFW	94.4
No	K36LV-D	D36	LD	CP	SNOWMASS VILLAGE, CO	BNPDTT20100920AAN	75.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D35

Mask: Stringent  
Latitude: 38 52 28.30 N (NAD83)  
Longitude: 107 39 42.60 W  
Height AMSL: 2102.0 m  
HAAT: 0.0 m  
Peak ERP: 0.087 kW  
Antenna: (replication) 0.0 deg  
Elev Pattn: Generic

50.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.000 kW	-692.6 m	3.8 km
45.0	0.020	-181.5	6.5
90.0	0.083	190.0	22.8
135.0	0.069	-12.8	8.8
180.0	0.055	375.2	27.4
225.0	0.067	368.8	28.3
270.0	0.002	-7.1	3.5
315.0	0.000	-477.7	3.8

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m Computed HAAT: -55 m

Distance to Canadian border: 1125.4 km

Distance to Mexican border: 788.2 km

Conditions at FCC monitoring station: Grand Island NE  
Bearing: 70.9 degrees Distance: 819.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 55.7 degrees Distance: 250.5 km  
ERP: 0.036 kW Field strength: -56.7 dBu, 0.0 mV/m

Study cell size: 1.00 km  
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

No IX check failures found.