EXHIBIT E

ENGINEERING STATEMENT
AMENDMENT TO PENDING APPLICATION FOR A DTV CONSTRUCTION PERMIT (FCC FILE NO. BDFCDTL-20090630AFJ) FOR AN EXISTING TELEVISION TRANSLATOR K41IP, RAINIER, OREGON CHANNEL 41 0.5 KW MAX ERP 399 METERS RC/AMSL

DECEMBER 2009

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 10th day of December, 2009.

CAROLYN L. LYON NOTARY PUBLIC DISTRICT OF COLUMBIA

Notary Public

My Commission Expires: 2/28/2013

Introduction

This engineering statement has been prepared on behalf of Rural Oregon Wireless TV, Inc., licensee of TV translator K41IP, Rainier, Oregon. This statement supports the licensee's amendment to its request to convert to DTV operation on the currently licensed analog channel 41, commonly referred to as "flash-cut" with a DTV effective radiated power ("ERP") of 0.5 kW at a radiation center above mean sea level ("RCAMSL") of 399 meters. The purpose of this amendment is to reduce the proposed ERP to ensure protection of identified allocation constraints.

Transmitter Site

The existing antenna will be utilized and no significant alteration of the tower is proposed. The existing tower is located at 3736 Mount Brynion Road, Kelso, Washington. There is no change in transmitter site. The geographic coordinates of the site follow below.

North Latitude: 46° 09' 46"

West Longitude: 122° 51' 05"

NAD-27

Elevation Data

Elevation of site above mean sea level	384 meters (1260 feet)
Center of radiation of antenna above ground level	15 meters (49 feet)
Center of radiation of antenna above mean sea level	399 meters (1309 feet)

Overall tower height above ground level	42.7 meters (140 feet)
Overall tower height above mean sea level	426.7 meters (1400 feet)

Note: Slight height differences may result due to conversion to/from metric.

The Antenna Structure Registration Number ("ASRN") for the existing tower is 1220895.

Equipment Data

Transmitter:	Type-Accepted
Transmission Line:	Andrew, Type flexible foam coaxial, 7/8", 30.5 meters (100 feet) with 81.1% efficiency [0.910 dB loss/100 ft]
Antenna:	Kathrein-Scala, 1x1KBBU, with maximum gain of 11.5 dB and 0° electrical beam tilt
Out-of-band Emission Mask:	Stringent

Power Data

Transmitter:	0.0436 kW	-13.6 dBk
Transmission Line Loss:	81.1%	0.910 dB
Input Into Antenna:	0.035 kW	-14.51 dBk
Antenna Gain:	14.13	11.5 dB
ERP:	0.5 kW	-3.01 dBk

As indicated above, the transmitter with typical power output of 0.0436 kW will deliver 0.035 kW to the input of the antenna. The antenna, having a maximum gain of 11.5 dB and an electrical beam tilt of 0°, will produce maximum ERP of 0.5 kW. A coverage map of the proposed facility has been included as Exhibit E-1 of this report. The manufacturer's data for the proposed antenna is included as Exhibit E-2.

Other Broadcast Facilities

A brief analysis was completed to determine the presence of stations in the vicinity of the K41IP tower using the June 25, 2009 data contained within the Commission's Consolidated Database System ("CDBS"). Within 500 meters of the proposed site, one authorized FM translator, three authorized FM radio stations were identified, six authorized analog TV translators, one authorized DTV translator, and no authorized DTV or NTSC television stations were also found within 500 meters. There are no AM facilities within 3.2 km of the existing tower. Although no adverse technical affects are expected due to the proposed changes, the licensee will take measures to resolve any problems proven to be related to the changes proposed in this application.

Interference Analysis

A study of predicted interference caused by the proposed K41IP low power digital operation has been performed using the Longley-Rice program for which the source data has been posted by the Commission on its website at http://www.fcc.gov/oet/dtv/dtv_apps.html. The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Microsoft Windows XP platform. Comparison of

service/interference areas and population indicates this model closely matches the FCC's digital low power TV/translator evaluation program. Best efforts have been made to use data and calculation identical to the FCC's program. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 1 sq. km. Using 3-second terrain data sampled approximately every 1.0 km at one-degree azimuth intervals with 1990 census centroids, all studies are based upon data in the current CDBS database update of the FCC's engineering database. A Longley-Rice study was performed with the proposed K41IP low power digital facilities and all relevant stations listed in the FCC data base as of June 26, 2009. The study results and the included stations are listed in Table I.

FCC Rule, Section 1.1307

The proposed 0.5 kW directional operation will utilize a Kathrein-Scala, Type 1x1KBBU antenna (or equivalent) described above with a center of radiation above ground of 15 meters. The proposed antenna is side-mounted on a steel lattice tower with an overall height of 42.7 meters above ground.

The proposed operation based upon the current OET Bulletin No. 65, Edition 97-01 dated August 1997 and Supplement A meets the provisions of the FCC radiofrequency field ("RFF") guidelines, and thus, complies with Section 1.1307 of the FCC Rules. The elevation pattern for the Kathrein-Scala, Type 1x1KBBU antenna, Exhibit E-2, shows a maximum relative field of less than 0.2 toward the ground (45° to 90° below the horizontal). Calculation according to OET Bulletin 65 predicts a maximum RFF power density of less than 16.6 $\mu W/cm^2$, 2 meters

above ground or less than 4.0% of the 423.3 μW/cm² uncontrolled Maximum Permissible Exposure ("MPE") guideline.

Authorized personnel and rigging contractors will be alerted to the potential zone of high radiation on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on or near the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the licensee indicates:

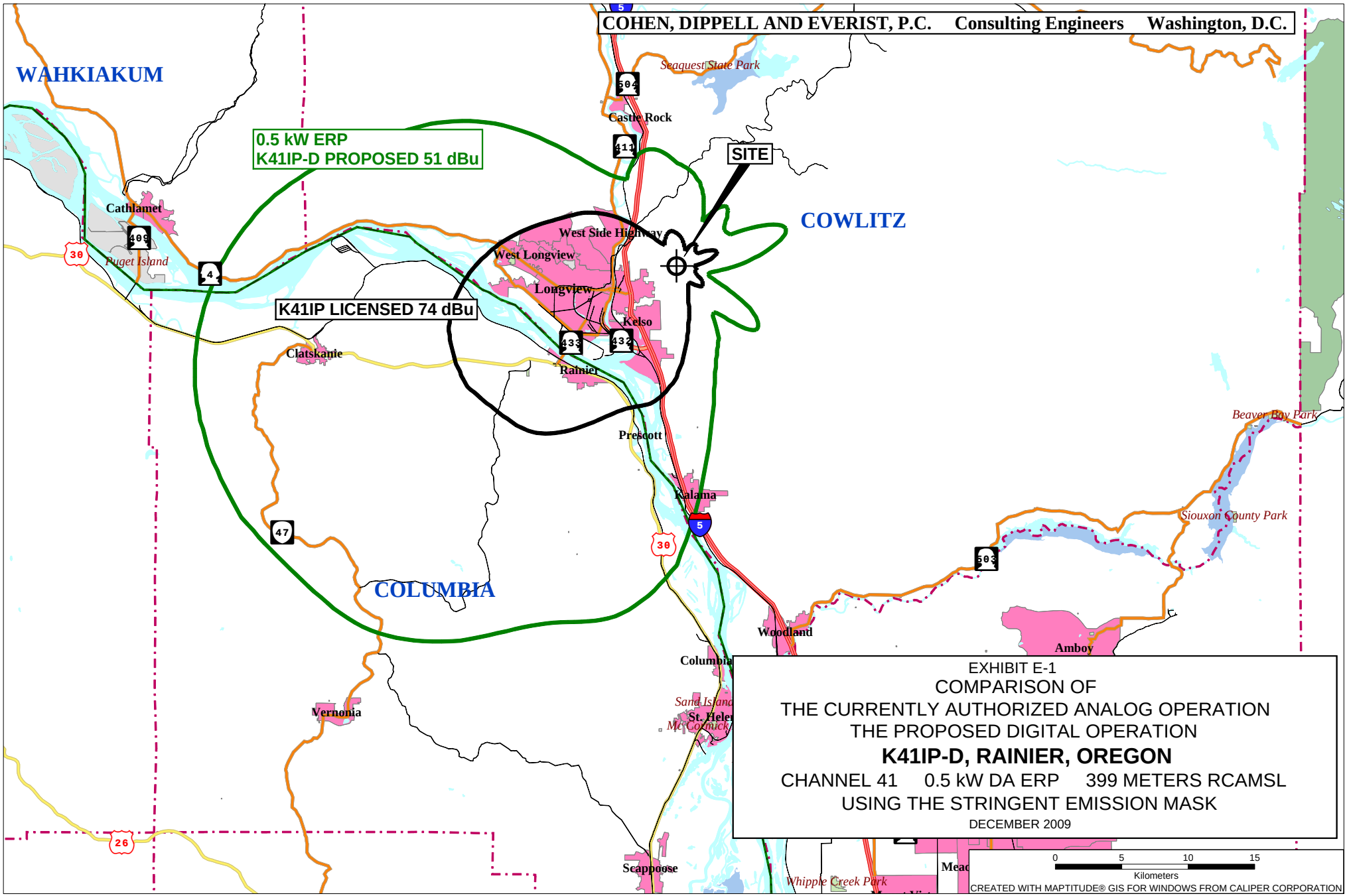
(a)(1)	The existing tower is not located in an officially designated wilderness area.
(a)(2)	The existing tower is not located in an officially designated wildlife preserve.
(a)(3)	The proposed facilities will not affect any listed threatened or endangered species or habitats.
(a)(3)(ii)	The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
(a)(4)	The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
(a)(5)	The existing tower is not located near any known Indian religious sites.

(a)(6) The existing tower is not located in a flood plain.

(a)(7) The installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.

(a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.

(b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.


COHEN, DIPPELL AND EVERIST, P.C. Consulting Engineers Washington, D.C.
WAHKIAKUM
COWLITZ
COLUMBIA
0.5 kW ERP
K41IP-D PROPOSED 51 dBu
K41IP LICENSED 74 dBu
SITE
Seaquest State Park
Castle Rock
Cathlamet
Puget Island
West Side Highway
West Longview
Longview
Kelso
Rainier
Clatskanie
Prescott
Kalama
Beaver Bay Park
Siouxon County Park
Woodland
Amboy
Columbia
Sand Island
St. Helens
McCormick
Vernonia
Scappoose
Whipple Creek Park
EXHIBIT E-1
COMPARISON OF
THE CURRENTLY AUTHORIZED ANALOG OPERATION
THE PROPOSED DIGITAL OPERATION
K41IP-D, RAINIER, OREGON
CHANNEL 41 0.5 kW DA ERP 399 METERS RCAMSL
USING THE STRINGENT EMISSION MASK
DECEMBER 2009
0 5 10 15
Kilometers
CREATED WITH MAPTITUDE® GIS FOR WINDOWS FROM CALIPER CORPORATION

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I
DLPTV LONGLEY-RICE INTERFERENCE ANALYSIS
FOR THE PROPOSED OPERATION OF
K41IP-D, RAINIER, OREGON
CHANNEL 41 0.5 KW DA ERP 399 METERS RCAMSL
USING THE STRINGENT EMISSION MASK
DECEMBER 2009

Channel	Call	City/State	Dist(km)	Status	FCC File No.	Result
26	K26DB	ASTORIA OR	81.6	LIC	BLTT-19911016IG	0.00%
26	K26GJ	PORTLAND OR	82.1	LIC	BLTTL-20040419AAA	0.00%
26	K26HS	TILLAMOOK OR	108.3	LIC	BLTTL-20070625ADJ	0.00%
34	K34DC	ASTORIA OR	81.6	LIC	BLTT-19920505IJ	0.00%
34	K40AM	HOOD RIVER OR	108.9	CP	BDISTT-20070815ABG	0.00%
34	K40AM	HOOD RIVER, ETC. OR	108.6	APP	BSTA-20070815ABP	0.00%
34	K34HK	LONGVIEW WA	7.8	LIC	BLTTL-20080509AAL	No interference
34	K34HK	LONGVIEW WA	8	APP	BSTA-20061109ADS	No interference
38	K53EI	HOOD RIVER OR	108.9	CP	BDISTT-20070822ABB	0.00%
38	KKEI-CA	PORTLAND OR	71.6	LIC	BLTTA-20070831ADB	No interference
38	K38GS	GRAYS RIVER, LEBAM WA	63	LIC	BLTT-20040412ACX	0.00%
40	K40AM	HOOD RIVER, ETC. OR	108.6	LIC	BLTT-19940505JE	No interference
40	KOIN	PORTLAND OR	72.5	LIC	BLCDT-20050613ABB	1.16%
40	K40EG	TILLAMOOK OR	126.6	LIC	BLTT-19960130JA	No interference
41	KBND-LP	BEND OR	260.6	CP	BDFCDTL-20090430ABC	No interference
41	KBND-LP	BEND OR	260.6	CP	BPTTL-20060327AFE	No interference
41	KBND-LP	BEND OR	260.6	CP MO	BMPDTL-20090521AEQ	No interference
41	KBND-LP	BEND OR	260.6	LIC	BLTT-20041025AEO	No interference
41	KORY-CA	EUGENE OR	240.9	LIC	BLTTA-20020722ABH	No interference
41	K41KL-D	GLENDALE, ETC. OR	398.1	CP MO	BMPDTT-20080528ACT	0.00%
41	KORK-LD	PORTLAND OR	71.6	CP	BDCCDTL-20061025ADW	0.02%
41	KORK-LD	PORTLAND OR	31.7	APP	BSTA-20090413AFO	0.14%
41	K41GG	ROCKAWAY, ETC. OR	96.1	LIC	BLTT-20010420AAU	No interference
41	K62DR	ROSEBURG OR	331.9	CP	BDISTTL-20060331BFR	0.00%
41	K41CL	WASCO-HEPPNER OR	182.4	LIC	BLTTL-19980903JG	No interference
41	K41CK	ELLENSBURG WA	201.1	LIC	BLTT-19890227IN	No interference
41	K65BU	GRAYS RIVER WA	63	CP	BDISTT-20060323AIE	No interference
41	K65BU	GRAYS RIVER WA	63	CP	BDFCDTT-20090513ACB	1.65%
41	K21HL	PATEROS WA	299.8	APP	BDISTTL-20081022ABU	No interference

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TABLE I
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FOR THE PROPOSED OPERATION OF
K41IP-D, RAINIER, OREGON
CHANNEL 41 0.5 KW DA ERP 399 METERS RCAMSL
USING THE STRINGENT EMISSION MASK
DECEMBER 2009

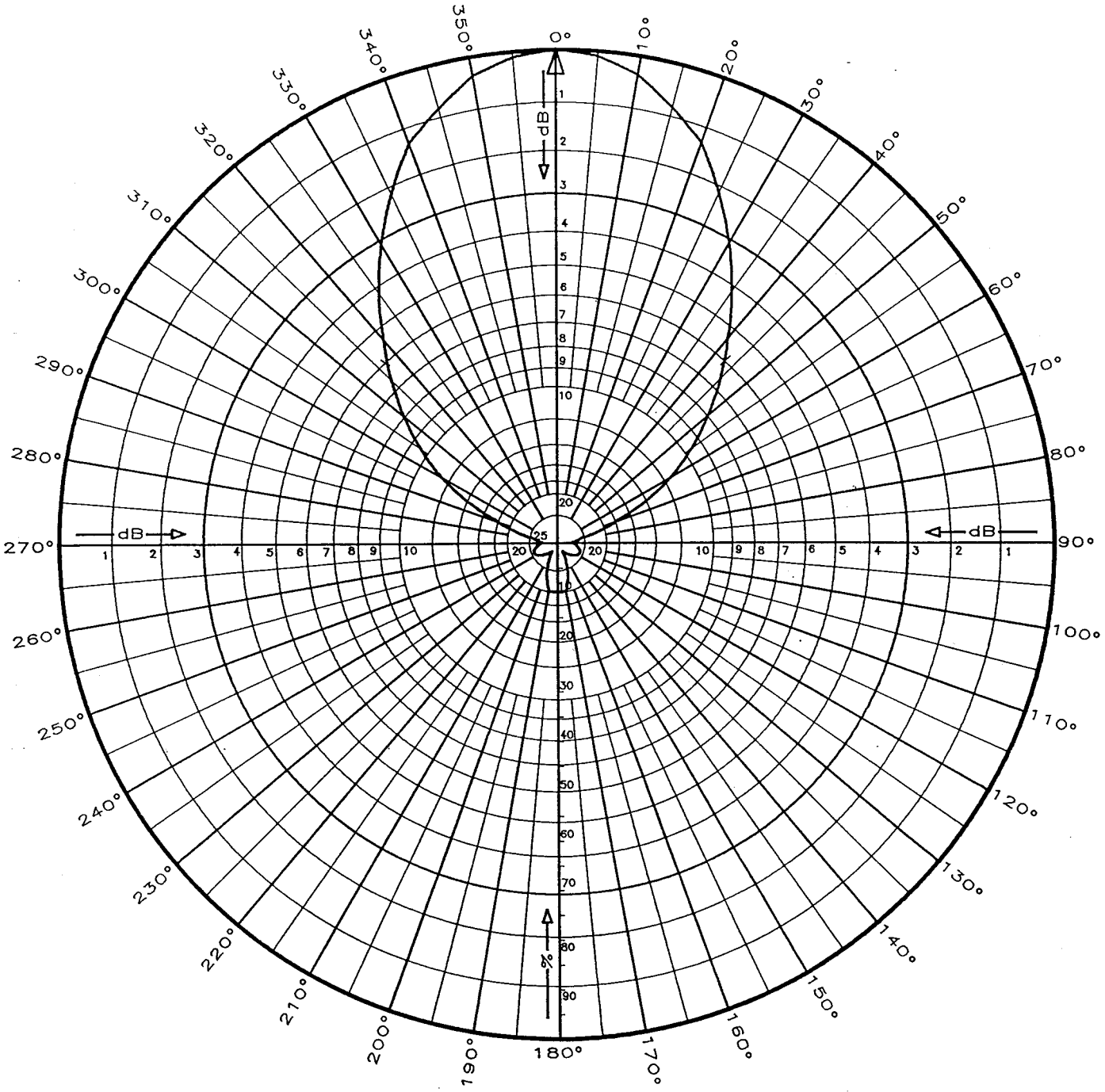
Channel	Call	City/State	Dist(km)	Status	FCC File No.	Result
41	KCTS-TV	SEATTLE WA	166.7	LIC	BLEDT-19990415KH	No interference
41	KCYU-LD	YAKIMA WA	184.3	LIC	BLDTL-20081219AAC	No interference
42	K42IR	ASTORIA OR	81.5	LIC	BLTTL-20090327AIA	No interference
42	K42CZ	LINCOLN CITY, ETC. OR	182	LIC	BLTT-19930608IF	0.00%
42	KPXG-LP	PORTLAND OR	71.6	CP	BDISDTL-20060322ACZ	0.00%
42	KPXG-LP	PORTLAND OR	71.6	CP	BPTTL-20050901ABW	No interference
42	K42CM	CENTRALIA, ETC. WA	46.3	LIC	BLTT-19910320IO	No interference
42	K42CM	CENTRALIA-CHEHALIS WA	46.3	CP	BDFCDTT-20060227ADV	0.86%
42	K42IO	ODELL WA	119.6	CP	BNPTTL-20000831CLQ	No interference
42	KWDK	TACOMA WA	163.6	LIC	BLEDT-20050421AAE	No interference
43	K43EJ	TILLAMOOK OR	126.6	LIC	BLTT-19940610IK	0.00%
44	K44HM	RAINIER OR	0	LIC	BLTT-20070209ABN	No interference
44	K44AV	ROCKAWAY OR	96.1	LIC	BLTT-20030610AAH	0.00%
49	K49IX-D	PUYALLUP WA	121	CP	BDISTTL-20051221AJD	0.00%

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

K41IP, RAINIER, OREGON



SCALA MODEL 1X1KBBU

BROADBAND UHF-TV PANEL ARRAY

ONE K-723141 (OR K-723147) PANEL

MAXIMUM ARRAY GAIN: 11.5 dBd
HORIZONTAL POLARIZATION
HORIZONTAL PLANE PATTERN

SCALA
ELECTRONIC CORPORATION
MEDFORD, OREGON (USA)
(503) 779-6500
FAX: (503) 779-3991

FORM: E-100-01 | REV: 15/FEB/91

1X1KBBU

AZIMUTH	RELATIVE VOLTAGE	RELATIVE dB	DBD	POWER GAIN
0	1.000	0.0	11.5	14.125
10	0.960	-0.4	11.1	12.882
20	0.860	-1.3	10.2	10.471
30	0.700	-3.1	8.4	6.918
40	0.540	-5.4	6.1	4.074
50	0.400	-8.0	3.5	2.239
60	0.270	-11.4	0.1	1.023
70	0.130	-17.7	-6.2	0.240
80	0.050	-26.0	-14.5	0.035
90	0.030	-30.5	-19.0	0.013
100	0.040	-28.0	-16.5	0.022
110	0.050	-26.0	-14.5	0.035
120	0.050	-26.0	-14.5	0.035
130	0.040	-28.0	-16.5	0.022
140	0.030	-30.5	-19.0	0.013
150	0.020	-34.0	-22.5	0.006
160	0.060	-24.4	-12.9	0.051
170	0.100	-20.0	-8.5	0.141
180	0.100	-20.0	-8.5	0.141
190	0.100	-20.0	-8.5	0.141
200	0.060	-24.4	-12.9	0.051
210	0.020	-34.0	-22.5	0.006
220	0.030	-30.5	-19.0	0.013
230	0.040	-28.0	-16.5	0.022
240	0.050	-26.0	-14.5	0.035
250	0.050	-26.0	-14.5	0.035
260	0.040	-28.0	-16.5	0.022
270	0.030	-30.5	-19.0	0.013
280	0.050	-26.0	-14.5	0.035
290	0.130	-17.7	-6.2	0.240
300	0.270	-11.4	0.1	1.023
310	0.400	-8.0	3.5	2.239
320	0.540	-5.4	6.1	4.074
330	0.700	-3.1	8.4	6.918
340	0.860	-1.3	10.2	10.471
350	0.960	-0.4	11.1	12.882

1X1KBBU

Minima / Maxima Tabulation

Min/Max	Rel. Field	Starting Azimuth		Ending Azimuth
Max	1.000	0	-	0
Min	0.020	150	-	150
Min	0.020	210	-	210

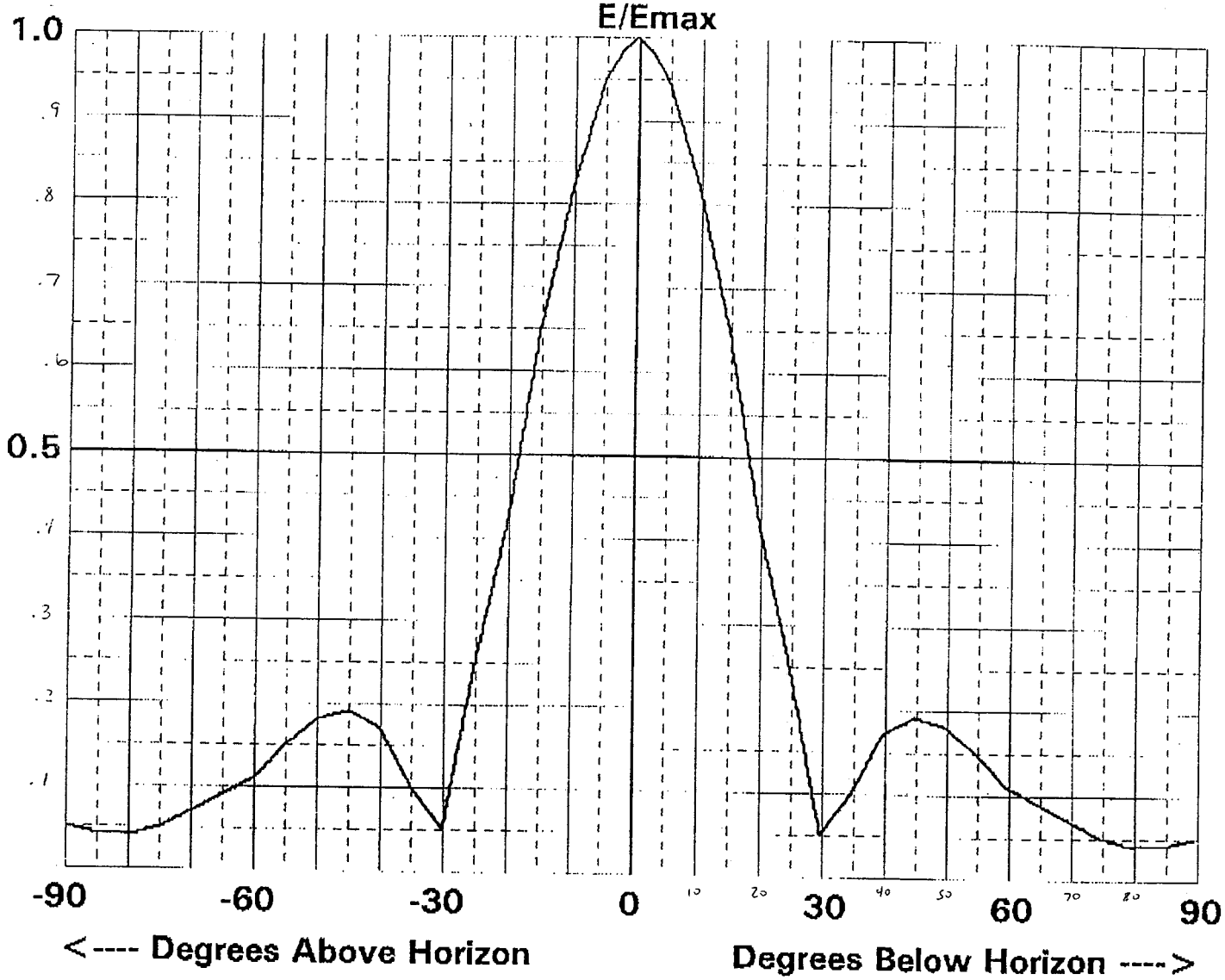
VERTICAL RADIATION PATTERN

PROJECT :

GAIN : 4.0135 dB

FREQUENCY : 600.00 MHz

NUMBER OF BAYS : 1



Section III - Engineering (Digital)

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel: 41

2. Translator Input Channel No. 40

3. Station proposed to be rebroadcast:

Call Sign	City	State	Channel
KOIN-DT	Portland	OR	40

4. Antenna Location Coordinates: (NAD 27)

46 ° 09 ' 46 " [X] N [ ] S Latitude

122 ° 51 ' 05 " [ ] E [X] W Longitude

5. Antenna Structure Registration Number: 1220895

[ ] Not applicable [See Explanation in Exhibit No.] [ ] FAA Notification Filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 384 meters

7. Overall Tower Height Above Ground Level: 42.7 meters

8. Height of Radiation Center Above Ground Level: 15 meters

9. Maximum Effective Radiated Power (ERP): 0.5 kW

10. Transmitter Output Power: 0.0436 kW

11. a. Transmitting Antenna: [ ] Nondirectional [X] Directional ("Off-the-Shelf") [ ] Directional composite

Manufacturer	Model
Kathrein-Scala	1x1KBBU

b. Electrical Beam Tilt: 0 degrees [ ] Not applicable

c. Directional Antenna Relative Field Values:

Rotation: 240 ° ☐ No rotation ☒ N/A (Nondirectional) or Directional "Off-the-Shelf"

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

12. **Out-of-Channel Emission Mask:** Simple ☐ Stringent ☒

CERTIFICATION

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030.

☒ Yes ☐ No — See Explanation in Exhibit No.

14. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.,* the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. An **Exhibit is required.**

☒ Yes ☐ No — See Explanation in Exhibit No.

Exhibit No. E

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

15. **Channels 52-59.** If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:

☐ The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.

☐ Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.

PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.

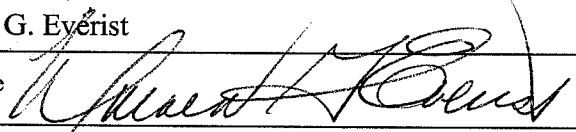
16. **Channels 60-69.** If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:

☐ Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees,

☐ Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreement(s) with 700 MHz public safety regional planning committee(s) and state frequency administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.

☐ Pursuant to Section 74.786(e), an applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Donald G. Everist	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date December 10, 2009	
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, Suite 1100		
City Washington	State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111	E-Mail Address (if available) cde@attglobal.net	

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).