

K274CF

Kansas City, MO
Latitude: 39-05-59 N
Longitude: 094-35-01 W
ERP: 0.19 kW
HAAT: 201 m
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 464.0 m
Elevation: 276.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

KCXL

Liberty, MO
Type: AM
Channel: 1140
Power: 4.0 kW Daytime
Latitude: 39-14-18 N
Longitude: 094-23-59 W

EXHIBIT 10 - FCC Section 74.1201(g) Fill-In Translator

The K274CF FCC F(50,50) 60 dBu contour is contained inside the primary station KCXL(AM) 2.0 mV/M daytime contour & a 25 mile radius from the KCXL(AM) tower.

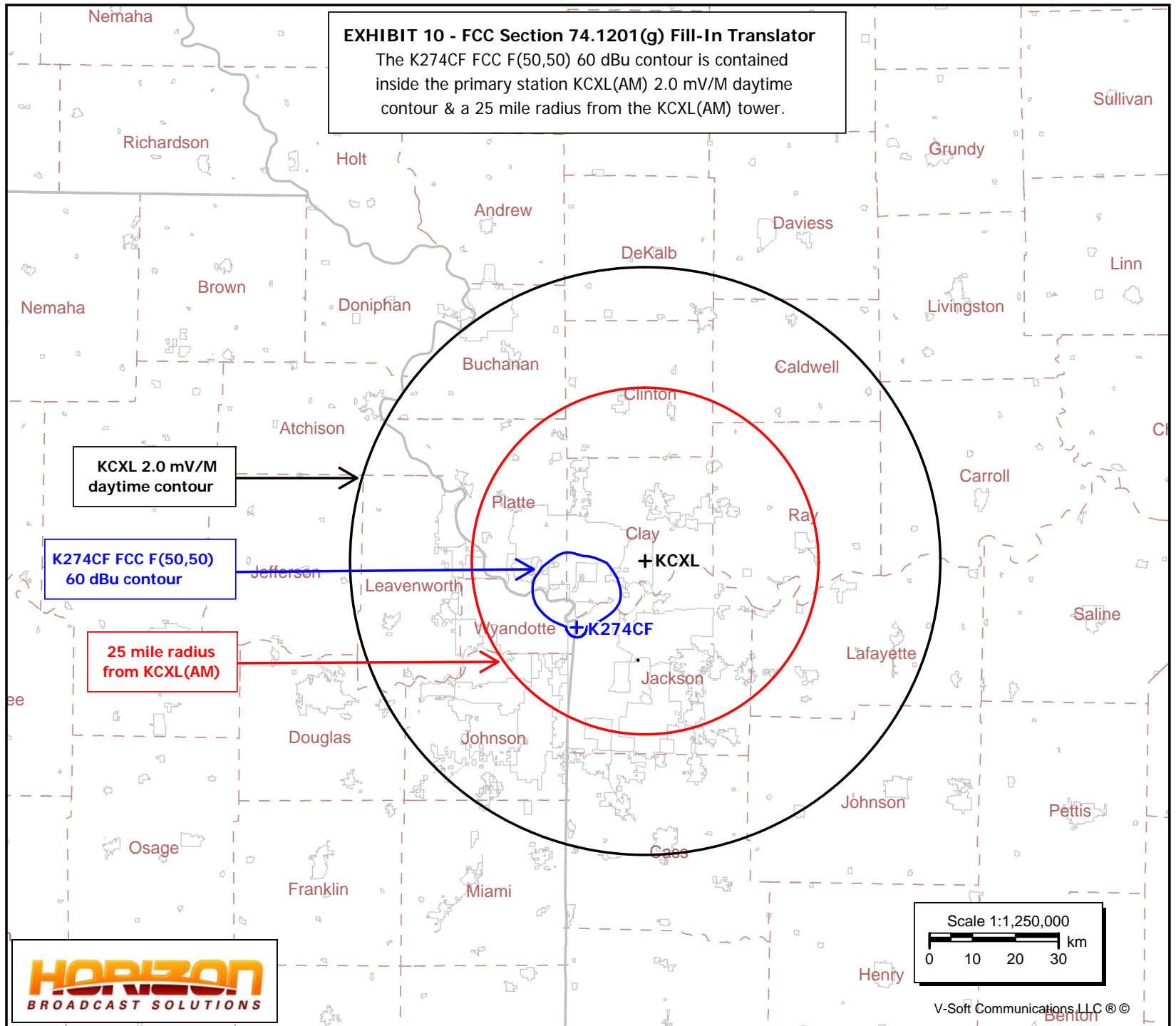


EXHIBIT 12

**Modify K274CF FM Translator
Construction Permit BNPFT-20130325AIR
Channel 274D - 103.1 MHz - 0.250 kW
Monroe City, MO**

to

**Proposed CH 245D – 96.9 MHz – 0.190 KW
Kansas City, MO**

January 28, 2016

TECHNICAL NARRATIVE

This Technical Narrative and attached exhibits were prepared on behalf of Alpine Broadcasting Corporation, ("Alpine"). Alpine has entered into an agreement with Covenant Network ("Covenant"), to acquire construction permit BNPFT-20130325AIR for FM translator K274CF, Facility ID Number 153375, Monroe City, Missouri.

Alpine proposes to modify K274CF in the first AM Filing Window for Class C and D AM stations. The proposed primary station KCXL(AM) is a Class D AM station and is thus qualified to participate. Alpine proposes to modify K274CF construction permit BNPFT-20130325AIR by relocating to a different transmit location at Kansas City, Missouri, changing the frequency to channel 245D (96.9 MHz) and operating with 190 watts ERP directional at 192 meters AGL and 205 meters HAAT. The modified K274CF will be used as a fill-in translator for KCXL(AM), 1140 kHz, Facility ID Number 1162, licensed to Liberty, Missouri. Alpine is also the licensee of KCXL(AM).

The proposed K274CF is located at 39° 05' 59" North Latitude, 94° 35' 01" West Longitude (NAD 27). The transmit location is a high rise building in downtown Kansas City known as One Kansas City Place at 1200 Main St., Kansas City, MO. There are communication facilities on the roof of building. The tip of the pole is 654 feet (199.4 m.) above ground level. The proposed K274CF antenna will be mounted at a center of radiation of 630 feet (192 m.) above ground level. The ceiling of the top floor of the building is 584 feet (178 m.) above ground level. Access to the roof is restricted to authorized personnel. The site is not registered with the FCC's Antenna Structure Registration (ASR) database.

Exhibit 10 demonstrates compliance with FCC Section 74.1201(g). The proposed K274CX FCC F(50,50) 60 dBu contour is contained inside both the primary station KCXL(AM) 2.0 mV/m daytime contour and a 25 mile radius from the KCXL(AM) transmitter site.

Exhibit 13-A is a channel study using Section 73.207 spacings for Class A FM stations. The channel study is provided as a convenience to FCC staff. Exhibit 13-B demonstrates Section 74.1204 contour protection to KDVB, Channel 245C2, Effingham, KS. Exhibit 13-C demonstrates Section 74.1204 contour protection to KRBZ Channel 243CO, Kansas City, MO. Exhibit 13-D demonstrates Section 74.1204 contour protection to KLRX Channel 247C1, Lee's Summit, MO. Exhibit 13-E demonstrates Section 74.1204 contour protection to LPFM construction permit BNPL20131114ASA,

Channel 245L1, Kansas City, MO, Exhibit 13-F demonstrates Section 74.1204 contour protection to the K263AT application, Channel 245D, Olathe, KS.

An Exhibit showing compliance with Section 74.1233(a) "Common Overlap" is not included. Exhibit 13-G demonstrates the K274CF current and proposed facilities are located within 250 miles of each other.

No interference will be delivered or received from any existing translator station or low power FM (LPFM) facility.

A study has been undertaken to show the proposed K274CF facility is in compliance with the Commission's radio frequency emission limits and is attached as Exhibits 17-A and 17-B.

W274CF CH245A Channel Study

| REFERENCE | | CLASS = A | | DISPLAY DATES | | |
|--|----------------------------|------------------------------|------------------|---------------|----------|--------|
| 39 05 59.0 N. | | | | DATA | 02-01-16 | |
| 94 35 01.0 W. | | Current Spacings to 3rd Adj. | | SEARCH | 02-01-16 | |
| ----- Channel 245 - 96.9 MHz ----- | | | | | | |
| Call | Channel | Location | Azi | Dist | FCC | Margin |
| Lat. | Lng. | Ant | Power | HAAT | | |
| ----- | | | | | | |
| KDVB | CP 245C2 | Effingham | KS 294.9 | 81.1 | 165.5 | -84.4 |
| 39 24 12.0 | 95 26 18.0 | CX | 8.100 kW | 187 M | | |
| | Cumulus Licensing Llc | | BPH20130111AEG | | | |
| Note: See Exhibit 13-B Section 74.1204 Contour Protection - KDVB | | | | | | |
| KRBZ | LIC 243C0 | Kansas City | MO 144.9 | 10.5 | 85.5 | -75.0 |
| 39 01 20.0 | 94 30 49.0 | C | 100.000 kW | 335 M | | |
| | Entercom License, Llc | | BLH20030422ABI | | | |
| Note: See Exhibit 13-C Section 74.1204 Contour Protection - KRBZ | | | | | | |
| KLRX | LIC-N 247C1 | Lee's Summit | MO 96.0 | 9.7 | 74.5 | -64.8 |
| 39 05 26.0 | 94 28 18.0 | NC | 55.000 kW | 357 M | | |
| | Educational Media Foundati | | BMLED20080102ABC | | | |
| Note: See Exhibit 13-D Section 74.1204 Contour Protection - KLRX | | | | | | |
| NEW | CP 245L1 | Kansas City | MO 118.3 | 16.2 | 66.5 | -50.3 |
| 39 01 51.0 | 94 25 09.0 | | 0.100 kW | 24 M | | |
| | Multicultural Professional | | BNPL20131114ASA | | | |
| Note: See Exhibit 13-E Section 74.1204 Contour Protection - LPFM CP CH245L1 | | | | | | |
| K263AT | APP-D 245D | Olathe | KS 231.2 | 29.0 | 84.5 | -55.5 |
| 38 56 10.0 | 94 50 41.0 | DC | 0.250 kW | 0 M | | |
| | Community Broadcasting, In | | BPFT20160129AEM | | | |
| Note: See Exhibit 13-F Section 74.1204 Contour Protection - K263AT | | | | | | |
| KDVB | LIC 245A | Effingham | KS 305.1 | 88.1 | 114.5 | -26.4 |
| 39 33 07.0 | 95 25 23.0 | CX | 0.120 kW | 69 M | | |
| | Cumulus Licensing Llc | | BLH20080314ACK | | | |
| KZBK | LIC 245C2 | Brookfield | MO 54.7 | 157.7 | 165.5 | -7.8 |
| 39 54 32.0 | 93 04 34.0 | CN | 50.000 kW | 150 M | | |
| | Best Broadcasting, Inc. | | BLH19960117KC | | | |
| KKOW-FM | LIC 245C1 | Pittsburg | KS 185.9 | 199.5 | 199.5 | -0.05 |
| 37 18 44.0 | 94 48 58.0 | CN | 100.000 kW | 278 M | | |
| | American Media Investments | | BLH19891207KA | | | |
| K245BO | LIC 245D | Warrensburg | MO 113.3 | 90.5 | 84.5 | 6.0 |
| 38 46 28.0 | 93 37 35.0 | C | 0.250 kW | 0 M | | |
| | Community Broadcasting, In | | BLFT20140627ABV | | | |
| K296FD | APP 299D | Lexington | MO 81.3 | 65.5 | 9.5 | 56.0 |
| 39 11 12.0 | 93 50 03.0 | C | 0.250 kW | 0 M | | |
| | Community Broadcasting, In | | BPFT20160129AEY | | | |
| KVVL | LIC 246C3 | Maryville | MO 347.2 | 147.2 | 88.5 | 58.7 |
| 40 23 31.0 | 94 58 04.0 | CX | 21.500 kW | 108 M | | |
| | Nodaway Broadcasting Corpo | | BLH20021022ABC | | | |
| ----- | | | | | | |

K274CF

Kansas City, MO
Latitude: 39-05-59 N
Longitude: 094-35-01 W
ERP: 0.19 kW
HAAT: 205 m
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 468.0 m
Elevation: 276.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

KDVB.CP

Kansas City, MO
Latitude: 39-24-12 N
Longitude: 095-26-18 W
ERP: 8.10 kW
HAAT: 24 m
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 502.9 m
Elevation: 326.1 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

Exhibit 13-B Section 74.1204 Contour Protection
KDVB CP Channel 245C2 Effingham, Kansas

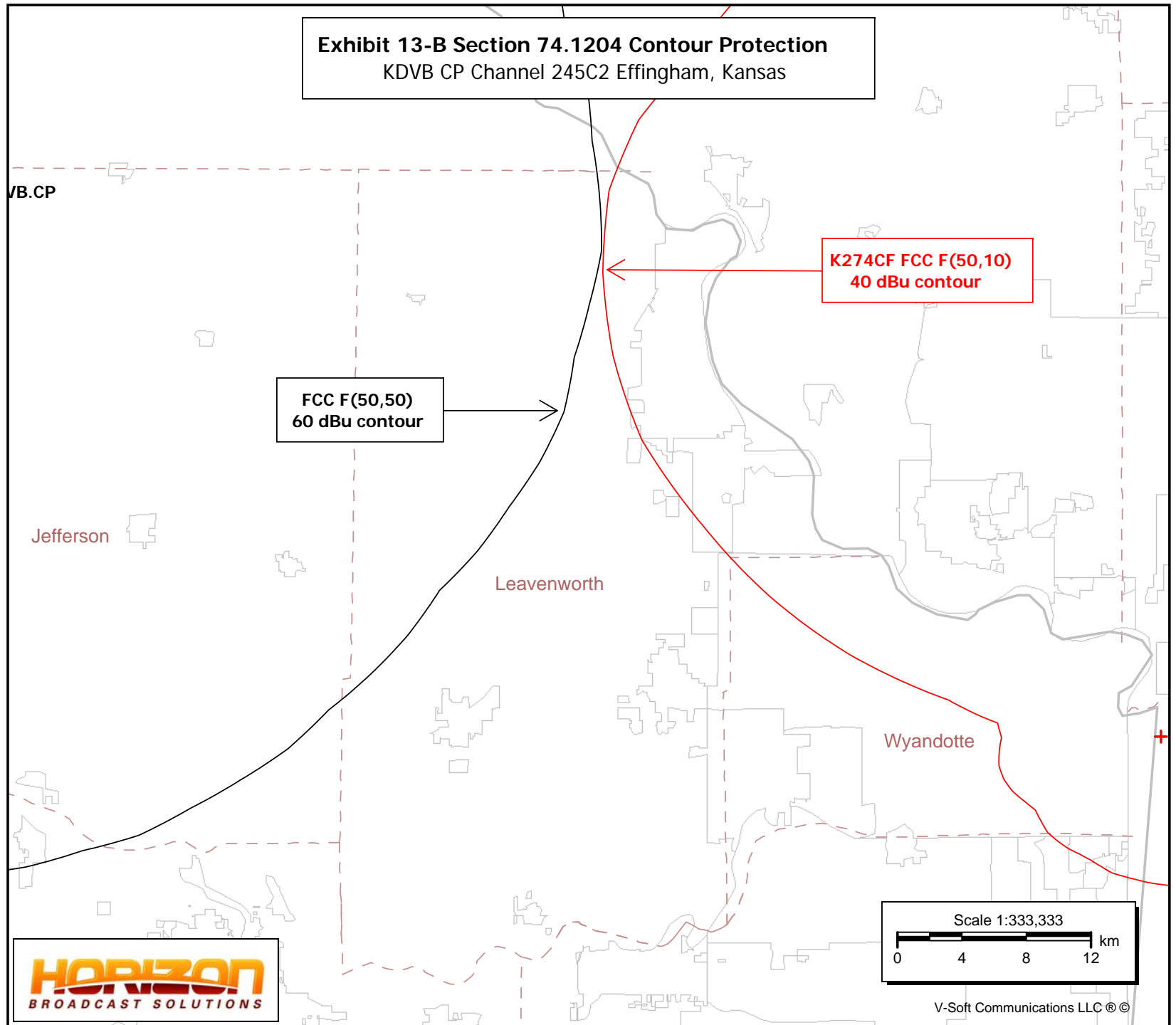


Exhibit 13-C
Section 74.1204
Contour Protection to KRBZ

This comprehensive exhibit has been prepared to demonstrate that the K274CF modification will not cause prohibited interference to KRBZ, Channel 243CO, Kansas City, Missouri. The KRBZ F(50,50) protected contour at the K274CF application site is 100.6 dBu. Therefore the K274CF F(50,10) interfering contour with respect to KRBZ is the 140.6 dBu contour. Using the FCC's FM propagation curves program (see attached), the 146.0 dBu contour was calculated to extend just 10 meters from the K274CF antenna. The interfering contour does not reach down to the ceiling of the top floor of the building which is 14 meters below the antenna. It is believed that the proposed modification to K274CF will not cause prohibited interference to KRBZ as no interference reaches the ground.

K274CF

Kansas City, MO
Latitude: 39-05-59 N
Longitude: 094-35-01 W
ERP: 0.19 kW
HAAT: 205 m
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 468.0 m
Elevation: 276.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

Exhibit 13-C Section 74.1204 Contour Protection
KRBZ Channel 243C0 Kansas City, Missouri**KRBZ**

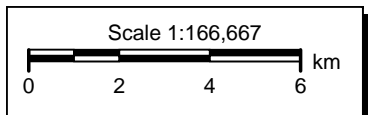
Kansas City, MO
BLH20030422ABI
Latitude: 39-01-20 N
Longitude: 094-30-49 W
ERP: 100.00 kW
HAAT: 335.0 m
Channel: 243
Frequency: 96.5 MHz
AMSL Height: 611.0 m
Elevation: 270.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

KRBZ FCC F(50,50)
100.6 dBu contour

+ K274CF

+ KRBZ

HORIZON
BROADCAST SOLUTIONS



V-Soft Communications LLC ©

Screen 3 - Results

Results of Calculation

Distance to Contour = 0.009 kilometers

[Back to Numeric Entries](#)

[Back to Initial Selections](#)

Input Data from Screens 1 and 2

ERP = 0.190 kW

HAAT = 205.0 meters

Field Strength = 140.6 dBu

Distances are in **meters and kilometers**

Power is in **kW (kilowatts)**

Field Strength is in **dBu**

FM and NTSC TV Channels 2 through 6

F(50,10) for interfering contours selected

Find Distance, given a Field Strength

Transcript of One Kansas City Place

Garrett Latham One Kansas City Place

Age: 25 years old

It took 3 years to build (1985 - 1988)

It was topped out in 1987

Located at: 1200 Main St, Kansas City, Missouri The antenna's tip is at 654 ft high

The top of the roof is 624 ft high

The top floor ends at 584 ft

The main floor is at 575 ft

The construction of the building began in 1985 and finished in 1988. The architect is BNIM Architects, formally PBNI Architects

1200 W. Main, Kansas City, MO

Antenna location →

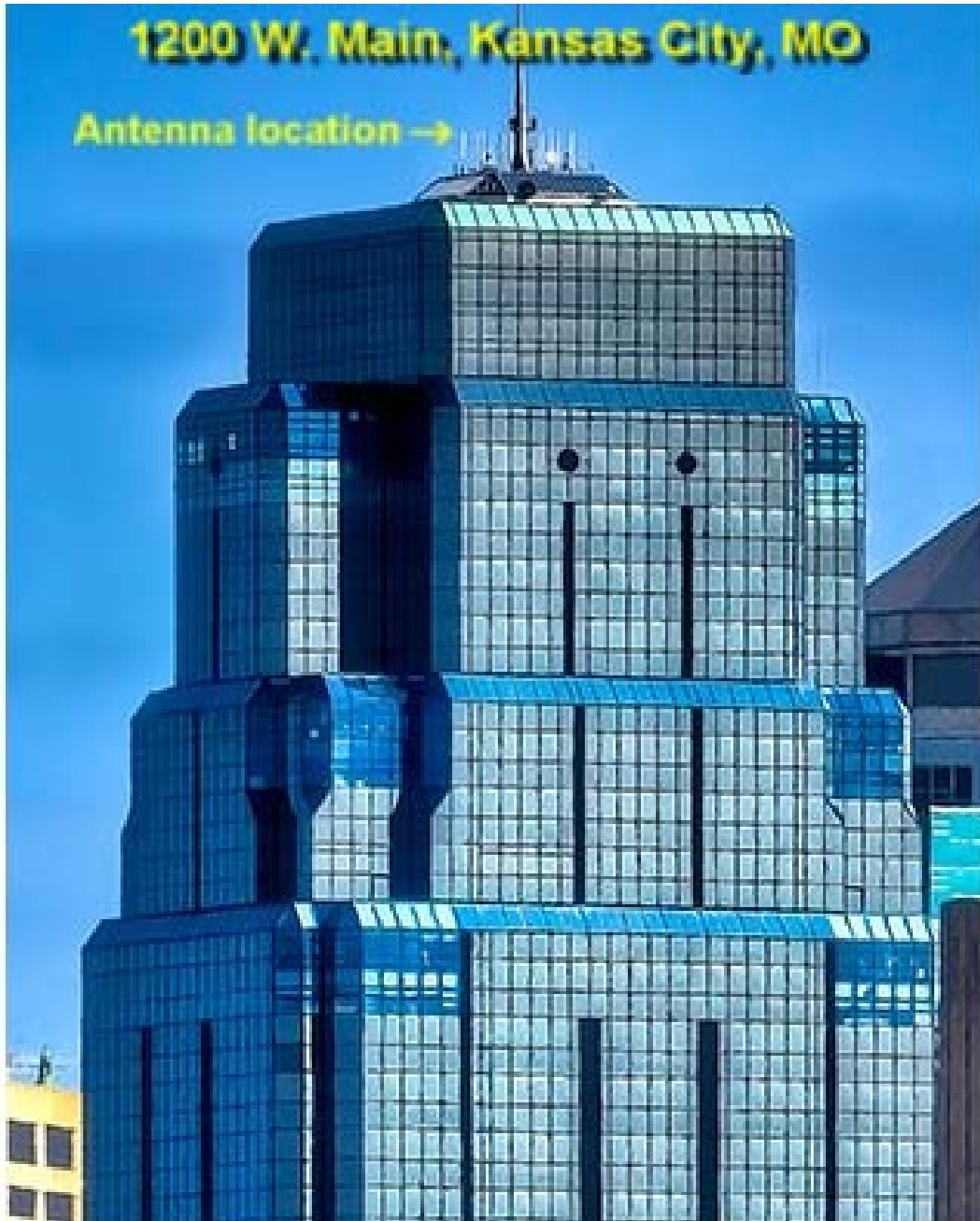


Exhibit 13-D
Section 74.1204
Contour Protection to KLRX

This comprehensive exhibit has been prepared to demonstrate that the K274CF modification will not cause prohibited interference to KLRX, Channel 247C1, Lee's Summit, Missouri. The KLRX F(50,50) protected contour at the K274CF application site is 99.4 dBu. Therefore the K274CF F(50,10) interfering contour with respect to KLRX is the 139.4 dBu contour. Using the FCC's FM propagation curves program (see attached), the 139.4 dBu contour was calculated to extend just 10 meters from the K274CF antenna. The interfering contour does not reach down to the ceiling of the top floor of the building which is 14 meters below the antenna. It is believed that the proposed modification to K274CF will not cause prohibited interference to KLRX as no interference reaches the ground.

Screen 3 - Results

Results of Calculation

Distance to Contour = 0.010 kilometers

[Back to Numeric Entries](#)

[Back to Initial Selections](#)

Input Data from Screens 1 and 2

ERP = 0.190 kW

HAAT = 205.0 meters

Field Strength = 139.3 dBu

Distances are in **meters and kilometers**

Power is in **kW (kilowatts)**

Field Strength is in **dBu**

FM and NTSC TV Channels 2 through 6

F(50,10) for interfering contours selected

Find Distance, given a Field Strength

Transcript of One Kansas City Place

Garrett Latham One Kansas City Place

Age: 25 years old

It took 3 years to build (1985 - 1988)

It was topped out in 1987

Located at: 1200 Main St, Kansas City, Missouri The antenna's tip is at 654 ft high

The top of the roof is 624 ft high

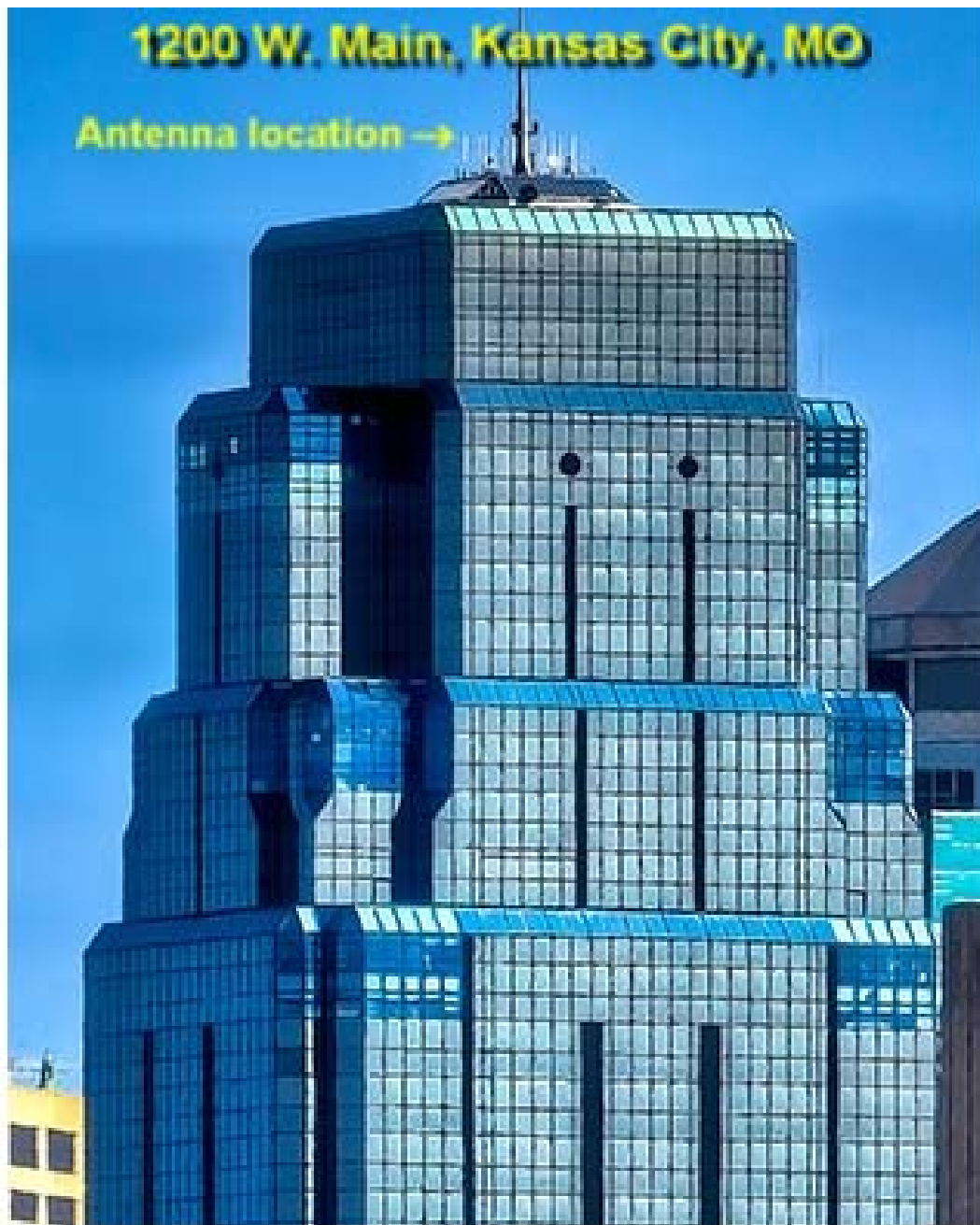
The top floor ends at 584 ft

The main floor is at 575 ft

The construction of the building began in 1985 and finished in 1988. The architect is BNIM Architects, formally PBNI Architects

1200 W. Main, Kansas City, MO

Antenna location →



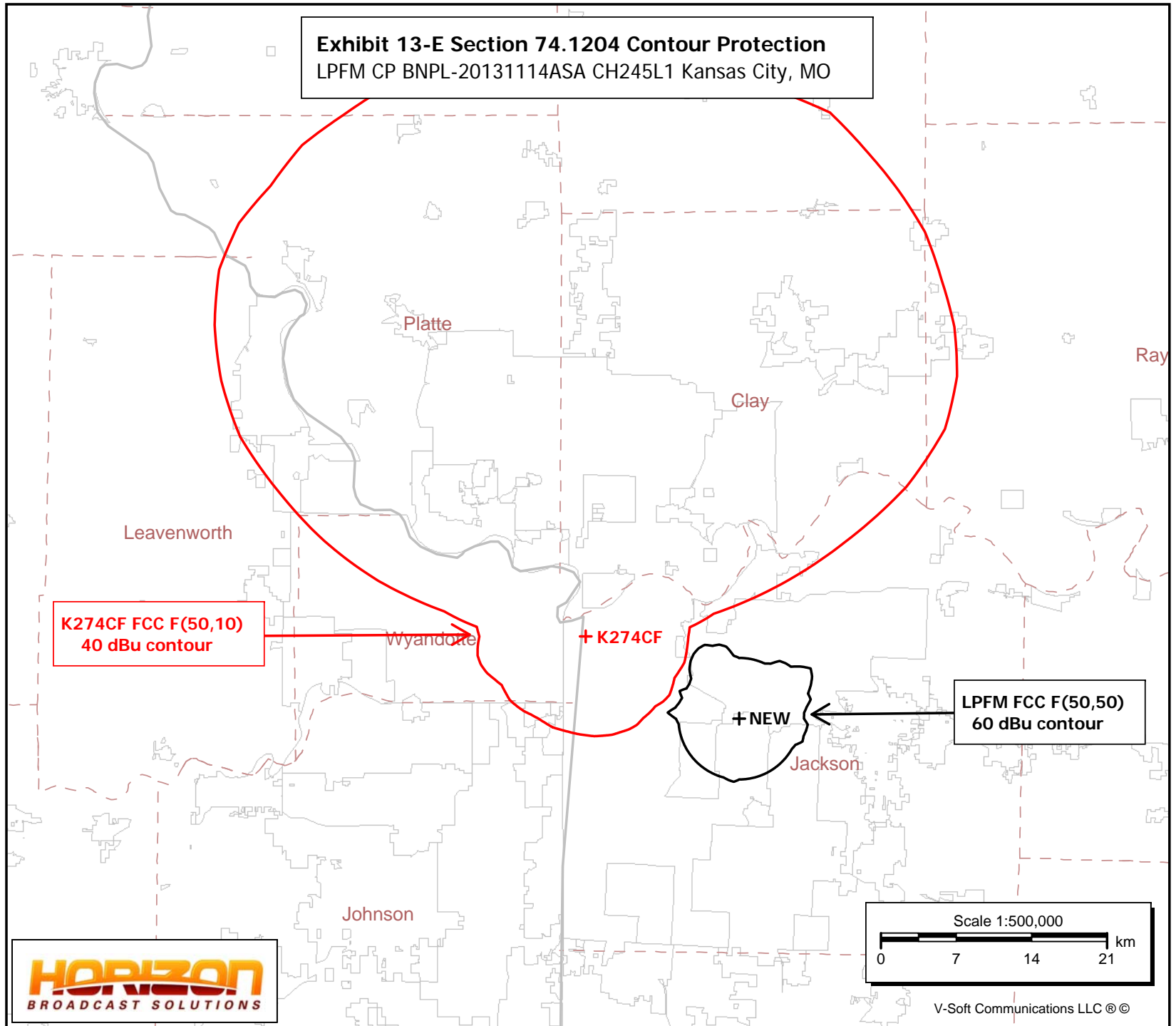
K274CF

Kansas City, MO
Latitude: 39-05-59 N
Longitude: 094-35-01 W
ERP: 0.19 kW
HAAT: 205 m
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 468.0 m
Elevation: 276.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

NEW

Kansas City, MO
Latitude: 39-01-51 N
Longitude: 094-25-09 W
ERP: 0.10 kW
HAAT: 24 m
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 301.0 m
Elevation: 273.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

Exhibit 13-E Section 74.1204 Contour Protection
LPFM CP BNPL-20131114ASA CH245L1 Kansas City, MO



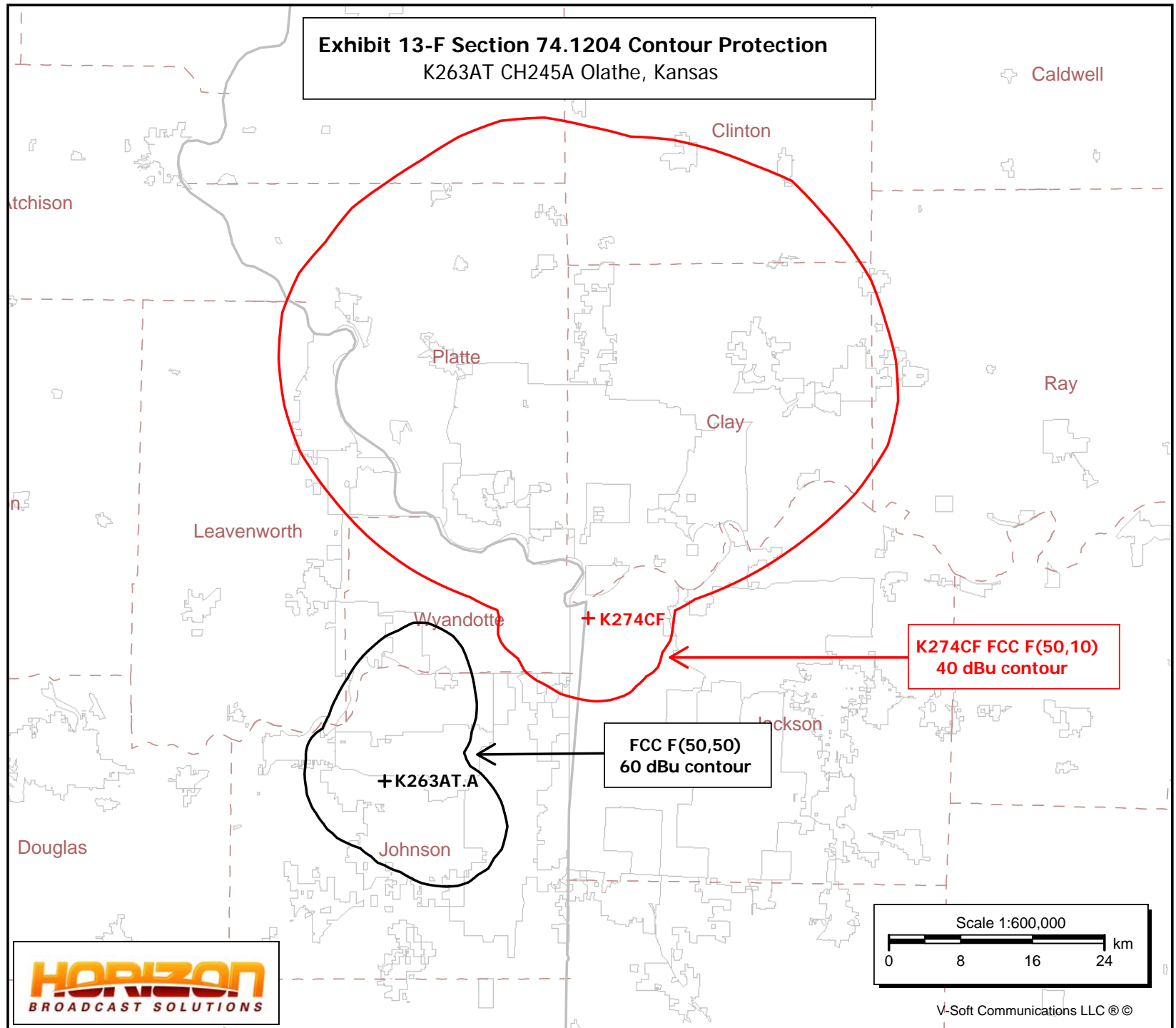
K274CF

Kansas City, MO
Latitude: 39-05-59 N
Longitude: 094-35-01 W
ERP: 0.19 kW
HAAT: 205 m
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 468.0 m
Elevation: 276.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

K263AT.A

Olathe, KS
BPFT20160129AEM
Latitude: 38-56-10 N
Longitude: 094-50-41 W
ERP: 0.25 kW
HAAT: 0.0 m
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 451.0 m
Elevation: 320.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

Exhibit 13-F Section 74.1204 Contour Protection
K263AT CH245A Olathe, Kansas



K274CF.CP

Monroe City, MO

Latitude: 39-39-29.80 N

Longitude: 091-44-32.40 W

ERP: 0.25 kW

HAAT: 58 m

Channel: 274

Frequency: 102.7 MHz

AMSL Height: 270.0 m

Elevation: 223.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

K274CF Appl.

Kansas City, MO

Latitude: 39-05-59 N

Longitude: 094-35-01 W

ERP: 0.19 kW

HAAT: 205 m

Channel: 245

Frequency: 96.9 MHz

AMSL Height: 468.0 m

Elevation: 276.0 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model: None

Exhibit 13-G Compliance with 250 Mile Rule

The K274CF construction permit and proposed modification location are within 250 miles of each other.

250 mile radius

+ K274CF.CP

+ K274CF Appl.

HORIZON
BROADCAST SOLUTIONS

Scale 1:6,000,000

0 80 160 240 km

V-Soft Communications LLC ©

EXHIBIT 17-A

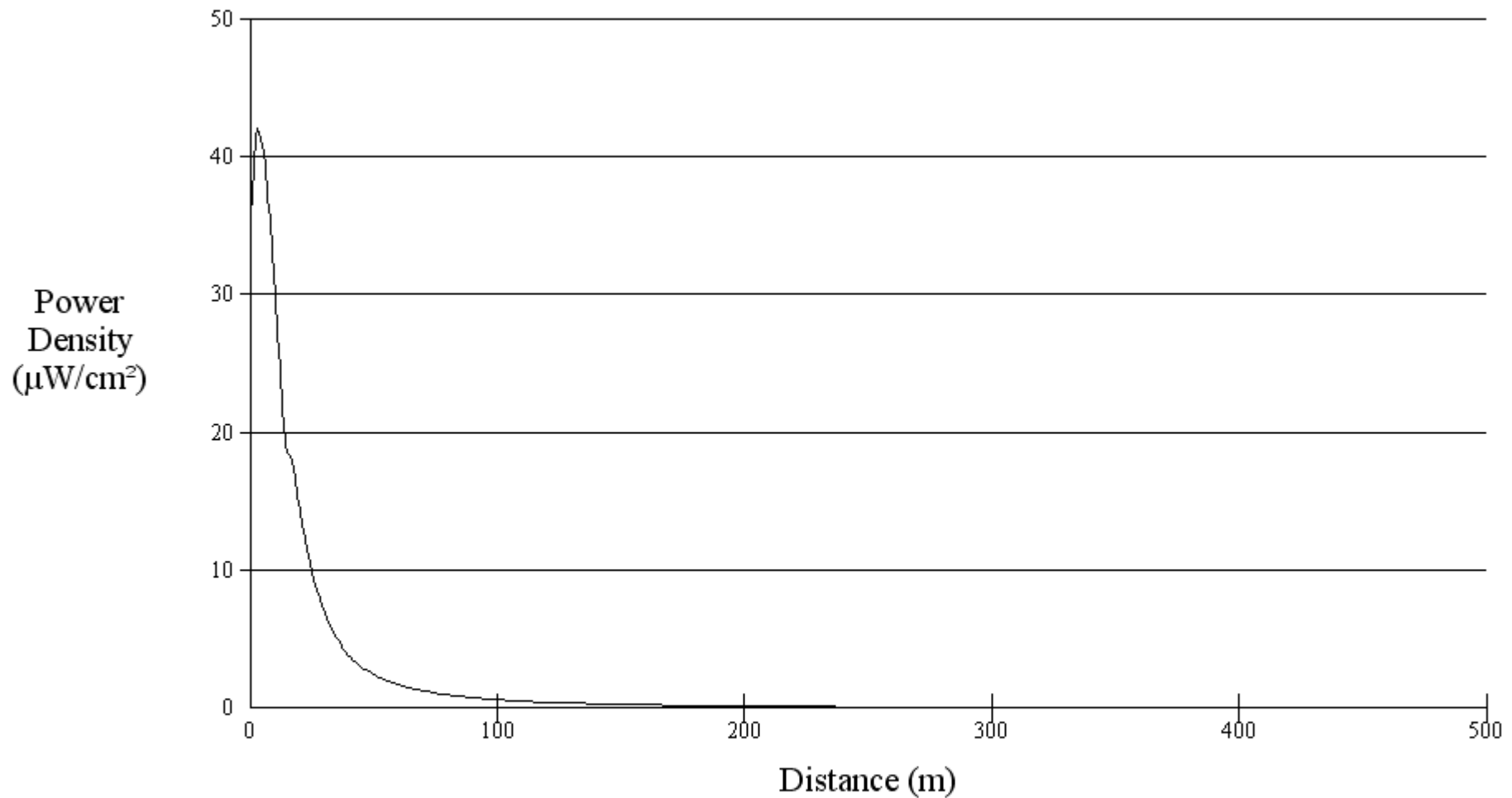
Human Exposure to Radiofrequency Electromagnetic Field & Section 106 Compliance (Environmental)

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Alpine Broadcasting Corporation seeks to modify construction permit BNPFT-20130325AIR for K274CF Channel 274D (103.1 MHz) Facility ID# 153375, Monroe City, MO by relocating to a new transmit location at Kansas City, MO, changing the frequency to Channel 245D (96.9 MHz) and operating with an effective radiated power of 190 watts directional. The site is an unregistered high rise building located at 39° 05' 59" N ~ 94° 35' 01" W (NAD 27). The building with tower is 654 feet (199.4 meters) above ground in overall height and is not registered with an Antenna Registration Structure (ASR) number. The antenna will be a Kathrein-Scala CLFM-RX vertically polarized log periodic antenna mounted at 359 degrees azimuth true north, with a center of radiation of 192 meters AGL. K274CF will operate with 190 watts ERP at 192 meters above ground level and 205 meters HAAT. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of § 1.1306 of the FCC Rules. Because K274CF proposes to operate from an existing tower, is exempt from a Section 106 review by the SHPO/THPO.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The Nicom BKG-77 one bay antenna is not listed in the Commission's FM Model for Windows Program. Therefore the Phelps-Dodge "Ring Stub" or Dipole (EPA) was selected as a worst case antenna type. The maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 42.00 $\mu\text{W}/\text{cm}$ at 3 meters, which is 21.00 percent of the general population uncontrolled maximum permitted exposure limit. In this instance "ground level" has been considered to be the top of the top floor of the building. The top of the top floor is at 584 ft. above ground level. Therefore, it is 46 feet (14 meters) from the top of the top floor to the antenna.

The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

Power Density vs Distance



Office of Engineering and Technology

| | | | |
|---------------------|----------------------------------|---------------------|--|
| Distance (m): | <input type="text" value="500"/> | Antenna Type: | <input type="text" value="Phelps-Dodge 'Ring Stub' or Dipole (EP)"/> |
| Horizontal ERP (W): | <input type="text" value="0"/> | Number of Elements: | <input type="text" value="1"/> |
| Vertical ERP (W): | <input type="text" value="190"/> | Element Spacing: | <input type="text" value="1"/> |
| Antenna Height (m): | <input type="text" value="14"/> | | |