

FOR
FCC
USE
ONLY

FCC 301

APPLICATION FOR CONSTRUCTION PERMIT FOR COMMERCIAL BROADCAST STATION

FOR COMMISSION USE ONLY
FILE NO.

Section I - General Information

| | | | |
|----|--|---|--|
| 1 | Legal Name of the Applicant Townsquare License, LLC | | |
| | Mailing Address 1 Manhattanville Road, Suite 202 | | |
| | City Purchase | State or Country (if foreign address) New York | ZIP Code 10577 |
| | Telephone Number (include area code) 203-861-0900 | E-Mail Address (if available) fcccontact@townsquaremedia.com | |
| | FCC Registration Number 0030479497 | Call Sign KFXD | Facility ID Number 63915 |
| 2. | Contact Representative (if other than applicant) Emilie de Lozier | | Firm or Company Name Wilkinson Barker Knauer, LLP |
| | Mailing Address 1800 M Street, NW Suite 800N | | |
| | City Washington | State or Country (if foreign address) DC | ZIP Code 20036 |
| | Telephone Number (include area code) 202-783-4141 | E-Mail Address (if available) edelozier@wbklaw.com | |

3. If this application has been submitted without a fee, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114):

Governmental Entity Other _____

4. **Application Purpose.**

- | | |
|--|--|
| <input type="checkbox"/> New Station | <input type="checkbox"/> Major Modification of construction permit |
| <input type="checkbox"/> New Station with Petition for Rulemaking or Counterproposal to Amend FM Table of Allotments | <input type="checkbox"/> Minor Modification of construction permit |
| <input type="checkbox"/> New Station with Petition for Rulemaking or Counterproposal to Amend FM Table of Allotments using Tribal Priority | <input type="checkbox"/> Major Amendment to pending application |
| <input type="checkbox"/> Major Change in licensed facility | <input type="checkbox"/> Minor Amendment to pending application |
| <input checked="" type="checkbox"/> Minor Change in licensed facility | |

a. File number of original construction permit: _____ N/A

b. Service Type: AM FM TV DTV DTS

c. DTV Type: Pre-Transition Post-Transition Both

d. Community of License:

| | |
|---------------|----------------|
| City Boise | State Idaho |
|---------------|----------------|

e. Facility Type: Main Auxiliary

If an amendment, submit as an Exhibit a listing by Section and Question Number of the portions of the pending application that are being revised.

| |
|-------------|
| Exhibit No. |
|-------------|

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.

Section II - Legal

1. **Certification.** Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets. Yes No

2. **Parties to the Application.**

a. List the applicant, and, if other than a natural person, its officers, directors, stockholders and other entities with attributable interests, non-insulated partners and/or members. If a corporation or partnership holds an attributable interest in the applicant, list separately its officers, directors, stockholders and other entities with attributable interests, non-insulated partners and/or members. Create a separate row for each individual or entity. Attach additional pages if necessary.

(1) Name and address of the applicant and each party to the application holding an attributable interest (if other than individual also show name, address and citizenship of natural person authorized to vote the stock or holding the attributable interest). List the applicant first, officers next, then directors and, thereafter, remaining stockholders and other entities with attributable interests, and partners.

(2) Citizenship.

(3) Positional Interest: Officer, director, general partner, limited partner, LLC member, investor/creditor attributable under the Commission's **equity/debt plus** standard, etc.

(4) Percentage of votes.

(5) Percentage of total assets (equity plus debt).

| (1) | (2) | (3) | (4) | (5) |
|-----|-----|-----|-----|-----|
| | | | | |

b. Applicant certifies that equity and financial interests not set forth above are non-attributable.

Yes No

N/A

See Explanation in Exhibit No.

3. **Other Authorizations.** List call signs, locations, and facility identifiers of all other broadcast stations in which applicant or any party to the application has an attributable interest.

Exhibit No. N/A

4. **Multiple Ownership.**

a. Is the applicant or any party to the application the holder of an attributable radio joint sales agreement or an attributable radio or television time brokerage agreement in the same market as the station subject to this application?

Yes No

If "YES," radio applicants must submit as an Exhibit a copy of each such agreement for radio stations.

Exhibit No.

Section II - Legal

- b. Applicant certifies that the proposed facility complies with the Commission's multiple ownership rules.

Yes No

Radio applicants only: If "Yes," submit an Exhibit providing information regarding the market, broadcast station(s), and other information necessary to demonstrate compliance with 47 C.F.R. Section 73.3555(a).

See Explanation in Exhibit No. see attached exhibit

All Applicants: If "No," submit as an Exhibit a detailed explanation in support of an exemption from, or waiver of, 47 C.F.R Section 73.3555.

- c. Applicant certifies that the proposed facility:
- (1) does not present an issue under the Commission's policies relating to media interests of immediate family members;
 - (2) complies with the Commission's policies relating to future ownership interests; and
 - (3) complies with the Commission's restrictions relating to the insulation and non-participation of non-party investors and creditors.

Yes No

See Explanation in Exhibit No.

- d. Does the Applicant claim status as an "eligible entity," that is, an entity that qualifies as a small business under the Small Business Administration's size standards for its industry grouping (as set forth in 13 C.F.R. Section 121.201), and holds:

Yes No

See Explanation in Exhibit No.

- (1) 30 percent or more of the stock or partnership interests and more than 50 percent of the voting power of the corporation or partnership that will own the media outlet; or
- (2) 15 percent or more of the stock or partnership interests and more than 50 percent of the voting power of the corporation or partnership that will own the media outlet, provided that no other person or entity owns or controls more than 25 percent of the outstanding stock or partnership interests; or
- (3) more than 50 percent of the voting power of the corporation that will own the media outlet (if such corporation is a publicly traded company)?

All applicants: If "Yes," submit as an Exhibit a detailed showing demonstrating proof of status as an eligible entity.

5. **Character Issues.** Applicant certifies that neither applicant nor any party to the application
- a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or
 - b. any pending broadcast application in which character issues have been raised.

Yes No

See Explanation in Exhibit No.

6. **Adverse Findings.** Applicant certifies that, with respect to the applicant and any party to the application, no adverse finding has been made, nor has an adverse final action been taken by any court or administrative body in a civil or criminal proceeding brought under the provisions of any law related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination.

Yes No

See Explanation in Exhibit No.

7. **Alien Ownership and Control.** Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.

Yes No

See Explanation in Exhibit No.

8. **Program Service Certification.** Applicant certifies that it is cognizant of and will comply with its obligations as a Commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.

Yes No

9. **Local Public Notice.** Applicant certifies that it has or will comply with the public notice requirements of 47 C.F.R. Section 73.3580.

Yes No

10. **Auction Authorization.** If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.

Yes No N/A

Exhibit No.

An exhibit is required unless this question is inapplicable.

11. **Anti-Drug Abuse Act Certification.** Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

Yes No

12. **Equal Employment Opportunity (EEO).** If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.

Yes No N/A

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

Yes No N/A

14. **Tribal Priority - Threshold Qualifications.** Is the Applicant applying for an FM allotment set forth in a Public Notice announcing a Tribal Threshold Qualifications window? An Applicant answering "Yes" must provide an Exhibit demonstrating that it would have been qualified to add the allotment for which it is applying using the Tribal Priority.

Yes No

Exhibit No.

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

| | |
|--|--|
| Typed or Printed Name of Person Signing Martin Stabbert | Typed or Printed Title of Person Signing Senior Vice President of Engineering |
| Signature  | Date February 22, 2023 |

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).

SECTION III PREPARER'S CERTIFICATION

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 Thomas S. Gorton | Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer | |
| Signature  | Date Feb 10, 2023 | |
| Mailing Address 9500 Greenwood Ave N | | |
| City Seattle | State or Country (if foreign address) WA | ZIP Code 98103-3012 |
| Telephone Number (include area code) (206) 783-9151 | E-Mail Address (if available) gorton@hatdaw.com | |

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).

SECTION III - A AM Engineering

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. Frequency: 630 kHz
2. Class: A B C D
3. Hours of Operation: Unlimited Limited Daytime Share Time Specified Hours: _____
4. **Daytime Operation:** Yes No
- a. Power: 5.0 kW
- b. Antenna Location Coordinates: (NAD 27)
- 43 ° 30 ' 57 " N S Latitude
- 116 ° 19 ' 58 " E W Longitude
- c. **Nondirectional:** Yes No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical 305.775 mV/m per kW at 1 km

| | |
|--|--|
| Tower | |
| Overall height above ground (include obstruction lighting) (meters) | 121.8 |
| Antenna structure registration | <p style="text-align: center;"><u>1053542</u> Number</p> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable |
| Height of radiator above base insulator, or above base, if grounded (meters) | 119 |
| Electrical height of radiator (degrees) | 90.0 |
| Top-Loaded/Sectionalized apparent height (degrees) | |
| A | |
| B | |
| C | |
| D | |

TECH BOX - DAYTIME OPERATION

d. Directional:

Yes No
 Exhibit No.

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Theoretical _____ mV/m at 1 km

Standard RMS: _____ mV/m at 1 km

| Towers | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| Overall height above ground (include obstruction lighting) (meters) | | | | |
| Antenna structure registration | _____ <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | _____ <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | _____ <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | _____ <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable |
| Height of radiator above base insulator, or above base, if grounded (meters) | | | | |
| Electrical height of radiator (degrees) | | | | |
| Field ratio | | | | |
| Phase (degrees) | | | | |
| Spacing (degrees) | | | | |
| Tower orientation (degrees) | | | | |
| Tower reference switch | | | | |
| Top-Loaded/Sectionalized apparent height (degrees) | | | | |
| A | | | | |
| B | | | | |
| C | | | | |
| D | | | | |

Augmented:

Yes No

If "Yes," complete the following:

Augmented RMS: _____ mV/m at 1 km

Azimuth Span Augmentation radiation (mV/m at 1 km)

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

TECH BOX - NIGHTTIME OPERATION

5. **Nighttime Operation:**

Yes No

a. Power: 0.037 kW

b. Antenna Location Coordinates: (NAD 27)

43[°] 30['] 57["] N S Latitude
116[°] 19['] 58["] E W Longitude

c. **Nondirectional:**

Yes No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical 305.775 mV/m per kW at 1 km

| | |
|--|--|
| Tower | |
| Overall height above ground (include obstruction lighting) (meters) | 121.8 |
| Antenna structure registration | <p style="text-align: center;"><u>1053542</u> Number</p> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable |
| Height of radiator above base insulator, or above base, if grounded (meters) | 119 |
| Electrical height of radiator (degrees) | 90.0 |
| Top-Loaded/Sectionalized apparent height (degrees) | |
| A | |
| B | |
| C | |
| D | |

TECH BOX - NIGHTTIME OPERATION

d. Directional:

Yes No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical _____ mV/m at 1 km

Standard RMS: _____ mV/m at 1 km

| Towers | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| Overall height above ground (include obstruction lighting) (meters) | | | | |
| Antenna structure registration | <hr/> <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | <hr/> <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | <hr/> <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | <hr/> <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable |
| Height of radiator above base insulator, or above base, if grounded (meters) | | | | |
| Electrical height of radiator (degrees) | | | | |
| Field ratio | | | | |
| Phase (degrees) | | | | |
| Spacing (degrees) | | | | |
| Tower orientation (degrees) | | | | |
| Tower reference switch | | | | |
| Top-Loaded/Sectionalized apparent height (degrees) | | | | |
| A | | | | |
| B | | | | |
| C | | | | |
| D | | | | |

Augmented:

Yes No

If "Yes," complete the following:

Augmented RMS: _____ mV/m at 1 km

Azimuth Span Augmentation radiation

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

TECH BOX - CRITICAL HOURS OPERATION

6. Critical Hours Operation:

Yes No

a. Power: _____ kW

b. Antenna Location Coordinates: (NAD 27)

_____ ° _____ ' _____ " N S Latitude
 _____ ° _____ ' _____ " E W Longitude

c. Nondirectional:

Yes No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical _____ mV/m per kW at 1 km

| | |
|--|---|
| Tower | |
| Overall height above ground (include obstruction lighting) (meters) | |
| Antenna structure registration | <p style="text-align: center;">_____ Number</p> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable |
| Height of radiator above base insulator, or above base, if grounded (meters) | |
| Electrical height of radiator (degrees) | |
| Top-Loaded/Sectionalized apparent height (meters) | |
| A | |
| B | |
| C | |
| D | |

TECH BOX - CRITICAL HOURS OPERATION

d. Directional:

Yes No
 Exhibit No.

if "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Theoretical _____ mV/m at 1 km

Standard RMS: _____ mV/m at 1 km

| Towers | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| Overall height above ground (include obstruction lighting) (meters) | | | | |
| Antenna structure registration | _____ <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | _____ <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | _____ <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable | _____ <input type="checkbox"/> Number Notification filed with FAA <input type="checkbox"/> Not applicable |
| Height of radiator above base insulator, or above base, if grounded (meters) | | | | |
| Electrical height of radiator (degrees) | | | | |
| Field ratio | | | | |
| Phase (degrees) | | | | |
| Spacing (degrees) | | | | |
| Tower orientation (degrees) | | | | |
| Tower reference switch | | | | |
| Top-Loaded/Sectionalized apparent height (degrees) | | | | |
| A | | | | |
| B | | | | |
| C | | | | |
| D | | | | |

Augmented:

Yes No

If "Yes," complete the following:

Augmented RMS: _____ mV/m at 1 km

Azimuth Span Augmentation radiation

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

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.

CERTIFICATION

7. **Broadcast Facility.** The proposed facility complies with the engineering standards and assignment requirements of 47 C.F.R. Sections 73.24(e), 73.24(g), 73.33, 73.45, 73.150, 73.152, 73.160, 73.182(a)-(i), 73.186, 73.189, 73.1650. **Exhibit Required.** Yes No See Explanation in Exhibit No.
Exhibit No. Eng Rpt
8. **Community Coverage.** The proposed facility complies with community coverage requirements of 47 C.F.R. Section 73.24(i). Yes No See Explanation in Exhibit No.
9. **Main Studio Location.** The proposed main studio location complies with requirements of 47 C.F.R. Section 73.1125. Yes No See Explanation in Exhibit No.
10. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all those that apply. An exhibit is required for each applicable section.
- Groundwave.**
- a. 47 C.F.R. Section 73.37 Exhibit No. Eng Rpt
- Skywave.**
- b. 47 C.F.R. Section 73.182. Exhibit No. Eng Rpt
- Critical Hours.**
- c. 47 C.F.R. Section 73.187. Exhibit No. N/A
11. **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 radio frequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an **Exhibit is required.** Yes No See Explanation in Exhibit No. Eng Rpt
- 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 radio frequency electromagnetic exposure in excess of FCC guidelines.
12. **Community of License Change - Section 307(b).** If the application is being submitted to change the facility's community of license, then the applicant certifies that it has attached an exhibit containing information demonstrating that the proposed community of license change constitutes a preferential arrangement of assignments under Section 307(b) of the Communications Act of 1934, as amended (47 U.S.C. Section 307(b)). Yes No N/A
Exhibit No.
- An exhibit is required** unless this question is not applicable.
13. **Dispositive Section 307(b) Preference**
- a. Was the AM facility that is the subject of this application awarded on the basis of a dispositive Section 307(b) preference? Yes No
- b. If yes to 13(a), applicant certifies that: (i) the community of license proposed in the subject application is the same as that on which the Section 307(b) preference was based, or (ii) as shown in the attached Exhibit, the service area proposed in the subject application is substantially equivalent to the service area on which the Section 307(b) preference was based. Yes No N/A
Exhibit No.
- c. If yes to 13(a) and no to 13(b), applicant certifies that, although in the subject application it proposes to: (i) change the community of license, or (ii) modify service to the area on which the Section 307(b) preference was based, it has for a period of four years of on-air operations: (1) served the community of license, or (2) provided full service to the area on which the Section 307(b) preference was based. Yes No
Exhibit No.

Multiple Ownership Exhibit

This application is being submitted solely to modify the station's licensed antenna system. No ownership changes are proposed. Thus, no showing is required.

STEPHEN S. LOCKWOOD, PE, PMP

THOMAS M. ECKELS, PE
ERIK C. SWANSON, PE, PMP
THOMAS S. GORTON, PE

JAMES B. HATFIELD, PE
BENJAMIN F. DAWSON III, PE
STEPHEN PUMPLE, M.Eng, MBA, PMP
CONSULTANTS

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9500 GREENWOOD AVE. N.
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E-MAIL hatdaw@hatdaw.com

MAURY L. HATFIELD, PE
(1942-2009)
PAUL W. LEONARD, PE
(1925-2011)

ENGINEERING REPORT

APPLICATION for CONSTRUCTION PERMIT to MODIFY ANTENNA

KFXD(AM)

630 kHz

Boise, Idaho

Facility ID 63915

5 kW Day, 37 Watts Night ND-U

TOWNSQUARE LICENSE, LLC

February 2023

Purpose of Application

This Engineering Report has been prepared in support of an application by Townsquare License, LLC (“Townsquare”) to modify the licensed antenna system of KFXD(AM), 630 kHz, Boise, Idaho. Townsquare proposes to replace the current daytime and nighttime directional antenna patterns with a non-directional antenna, reducing nighttime power to 37 Watts. Use of the west tower (ASR 1053542) of the existing array is proposed, therefore no new tower construction is required.

Townsquare’s landlord intends to use the land for agricultural purposes, and has advised Townsquare that their lease will be renewed, but only for the west tower. The other two towers are to be dismantled, and their ground systems left unprotected from development of the property.

Allocation Considerations

Daytime

The proposed 5 kW non-directional daytime operation of KFXD will not result in prohibited contour overlap with any known facility, as demonstrated by the daytime allocation study maps included in this report. No map is included for third-adjacent channel stations, as there are no such facilities close enough to require detailed study.

Nighttime

The proposed nighttime operation of KFXD will not enter the 25% RSS of any domestic facility, or the 50% RSS of any Canadian facility, as demonstrated by the Site to Site RSS calculations included in this report. This exhibit considers all facilities listed in the CDBS for which KFXD will exceed the 10% RSS threshold. These calculations are based on data from the February 10, 2023 edition of the CDBS.

Facilities Proposed

Townsquare proposes continued operation of KFXD on 630 kHz with a power of 5 kW daytime and 37 Watts nighttime, using an omni-directional antenna (ND-U). KFXD will thus become a Class D station, with unprotected secondary nighttime service. The antenna coordinates used in this application are those of the ASR for the west tower and therefore differ from the licensed (center of array) coordinates.

The antenna is 90° tall at 630 kHz, with a calculated efficiency of 305.775 mV/m/km at 1 kW.

The population within the 1V/m contour of the proposed 5 kW daytime operation is 96 persons¹, thus satisfying the requirements of §73.24(g).

The ground system consists of 120 equally spaced buried copper radials 121.92 meters long, except between towers and where terminated at property boundaries, where the shortest radial is 60.96 meters in length. In addition, there is a 14.63 m square copper ground screen at the base of the tower².

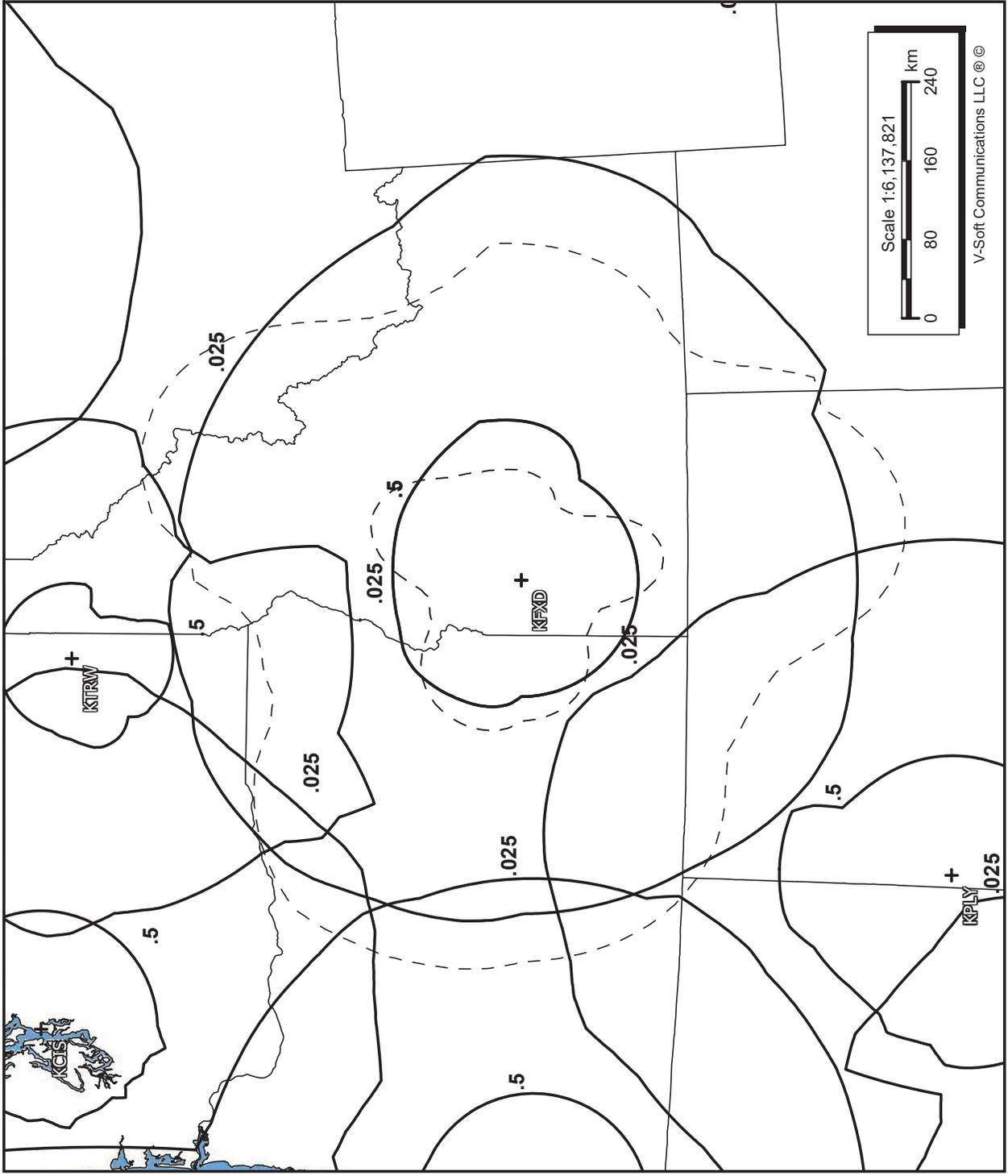
Antenna tower access is restricted by fences with a locked gate that is at least 2 meters from the tower base, as required by OET-65. The antenna towers are posted with warning signs, and all station personnel and contractors will be required to follow appropriate safety procedures before any work is commenced on the antenna towers, including reduction in power or discontinuance of operation before any maintenance work is undertaken.

¹2020 US Census data, block centroid method

²BL-950504AD

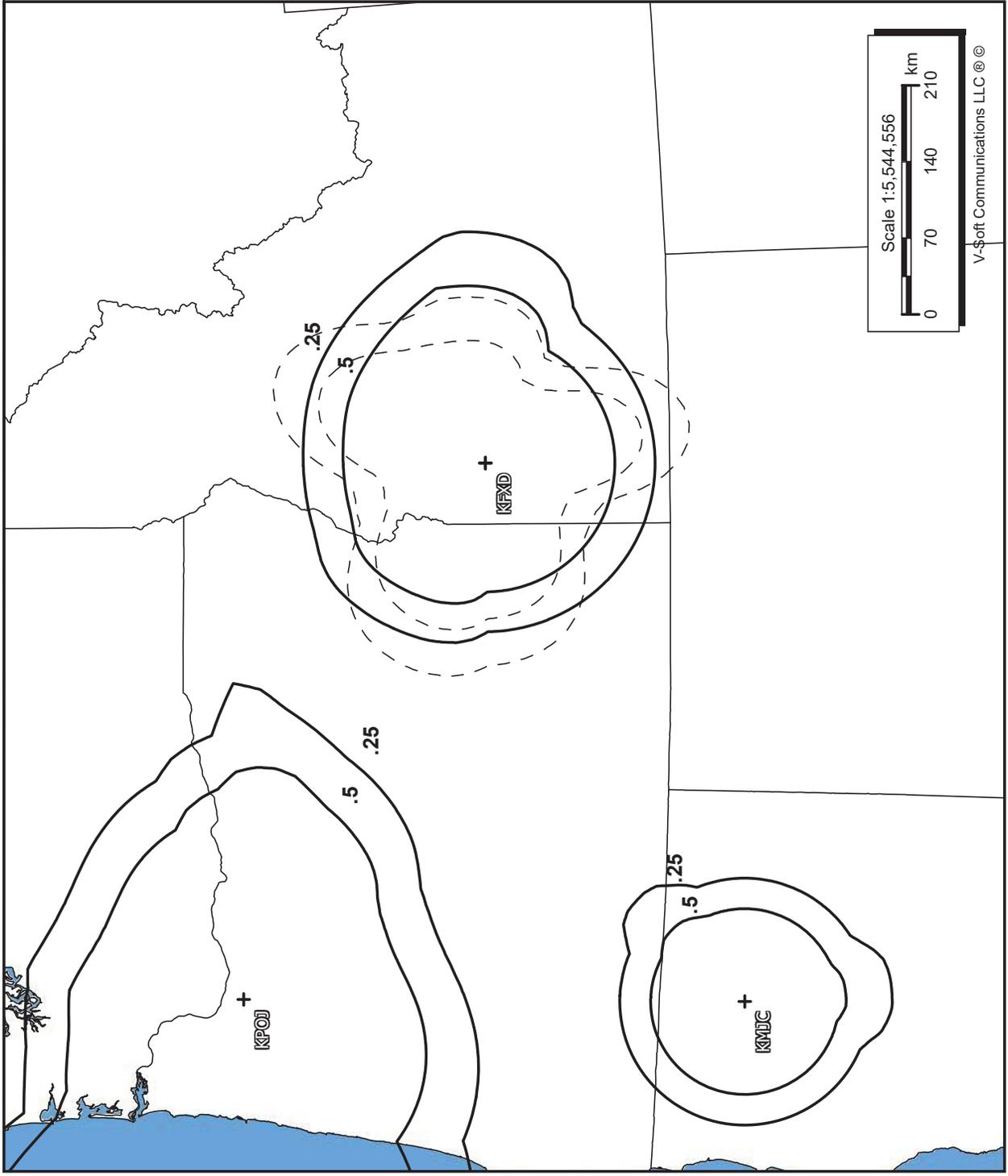
KFXD
Freq: 630 kHz
Class: B
Latitude: 43-30-57 N
Longitude: 116-19-58 W
Power: 5 kW
RMS: 305.775 mV/m @1km
Towers: 1
Augs: 0

Daytime Allocation
Study
Co-Channel
Dashed Lines are
Licensed Contours



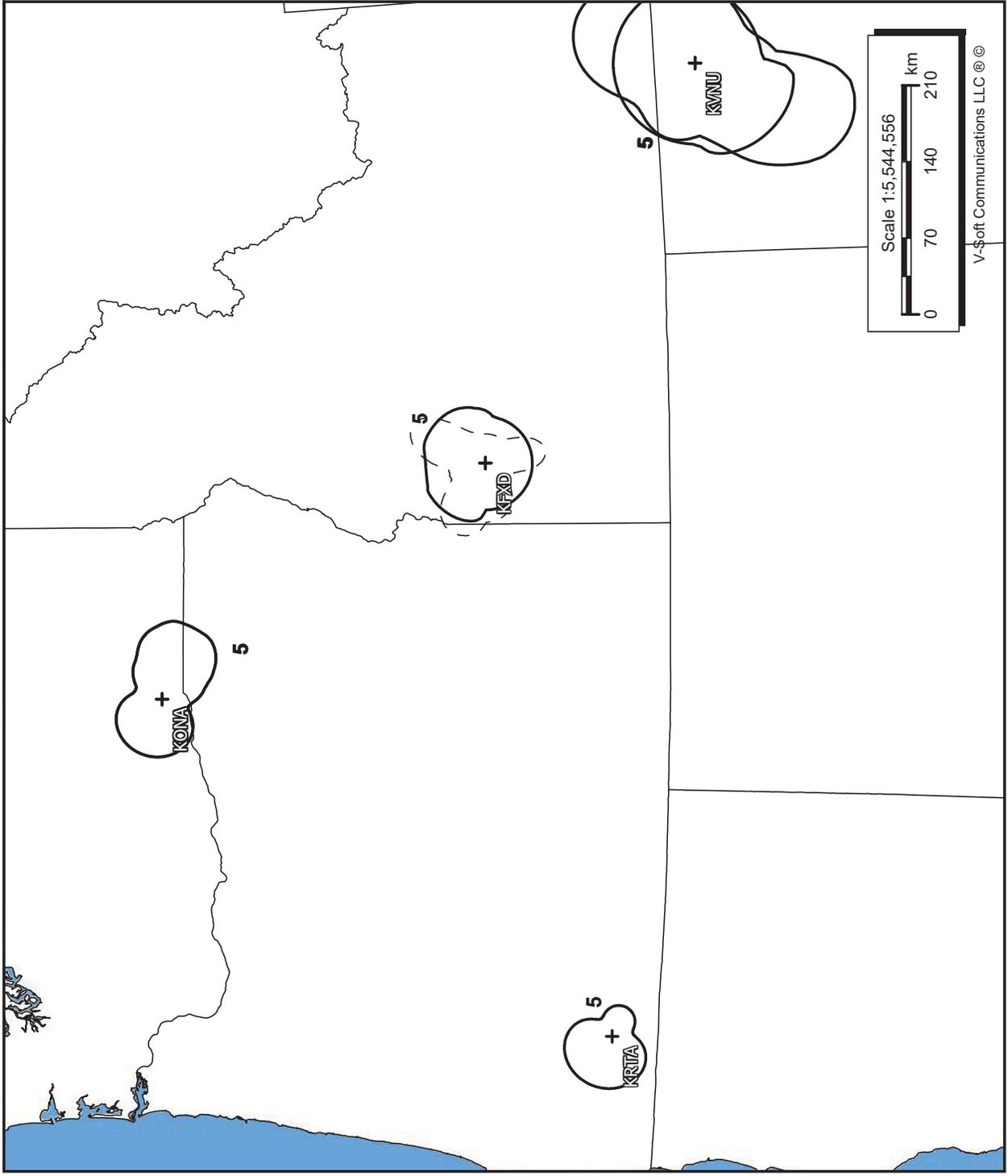
KFXD
 Freq: 630 kHz
 Class: B
 Latitude: 43-30-57 N
 Longitude: 116-19-58 W
 Power: 5 kW
 RMS: 305.775 mV/m @1km
 # Towers: 1
 # Augs: 0

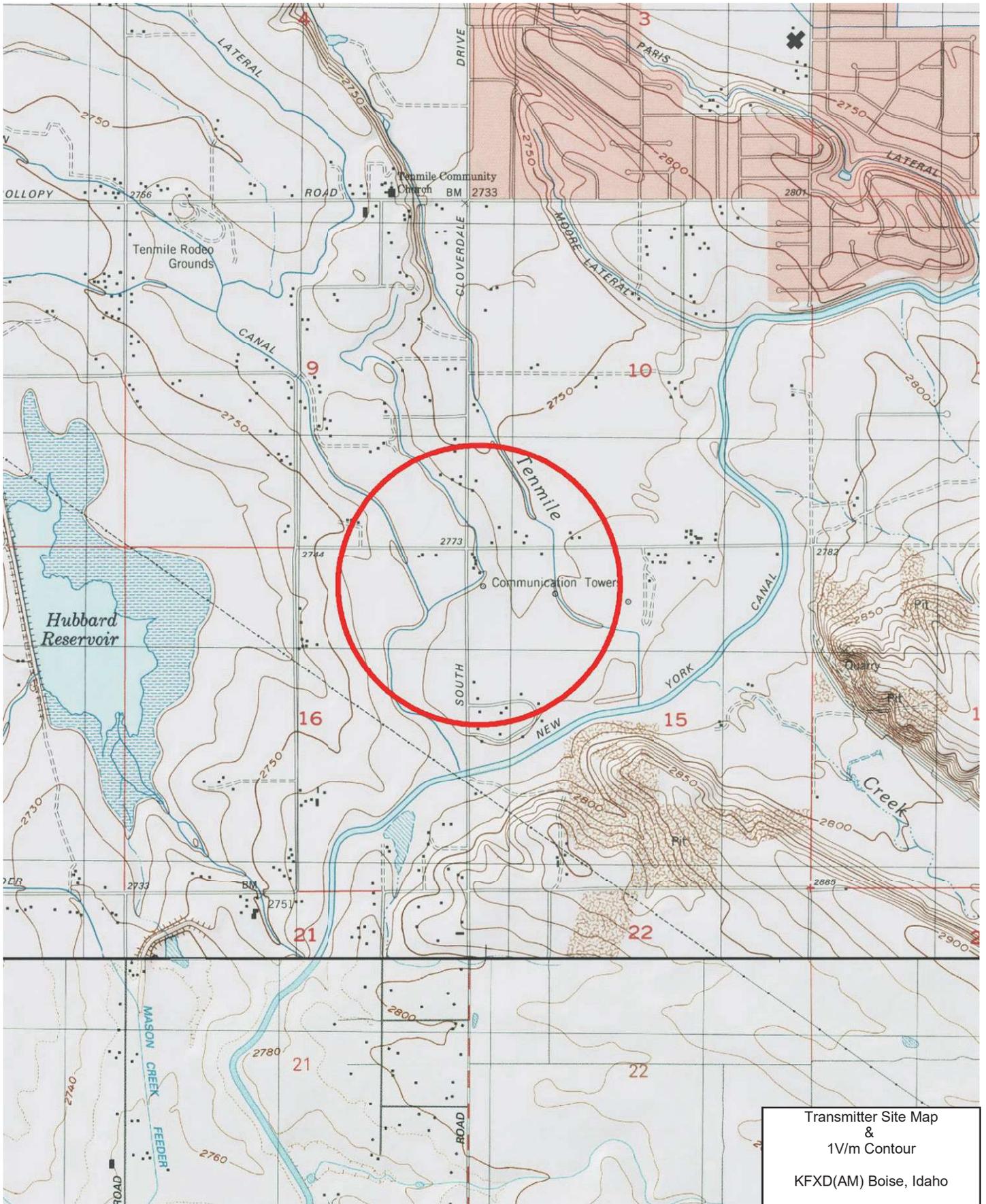
Daytime Allocation
 Study
 1st Adjacent Channel
 Dashed Lines are
 Licensed Contours



KFXD
Freq: 630 kHz
Class: B
Latitude: 43-30-57 N
Longitude: 116-19-58 W
Power: 5 kW
RMS: 305.775 mV/m @1km
Towers: 1
Augs: 0

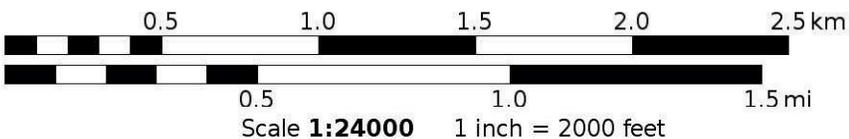
Daytime Allocation Study
2nd- Adjacent Channel
Dashed Lines are Licensed Contours





Transmitter Site Map
&
1V/m Contour
KFXD(AM) Boise, Idaho

Mercator Projection
WGS84
UTM Zone 11T
 CALTOPO



Site to Site RSS Calculations

Protected Station: KPLY, 630 kHz - RENO, NV, US

Coordinates: 39-34-25 N, 119-50-48 W

Standard: FCC Rules (1992 Skywave Propagation Model) [10%]

Current:

Proposed:

| Call | Freq (kHz) | Limit (mV/m) | (%) |
|----------|---------------|-----------------|-------|
| KFI | 0640 | 4.224 | 100.0 |
| ----- | | | |
| | 50% | ----- | |
| 630CKOV/ | 0630 | 1.714 | 40.5 |
| XEFB/A | 0630 | 1.359 | 29.8 |
| KSLR | 0630 | 1.350 | 28.3 |
| ----- | | | |
| | 25% | ----- | |
| KSUR | 0630 | 0.987 | 19.9 |
| CHED/ | 0630 | 0.831 | 16.4 |
| KCIS | 0630 | 0.780 | 15.2 |
| KHOW | 0630 | 0.738 | 14.2 |
| *KFXD | 0630 | 0.673 | 12.8 |
| XEFX/A | 0630 | 0.661 | 12.5 |
| OAX1T-A | 0630 | 0.652 | 12.2 |
| KPOJ | 0620 | 0.647 | 12.1 |
| WREY | 0630 | 0.569 | 10.5 |

| Call | Freq (kHz) | Limit (mV/m) | (%) |
|------------------|---------------|-----------------|-------------|
| KFI | 0640 | 4.224 | 100.0 |
| ----- | | | |
| | 50% | ----- | |
| 630CKOV/ | 0630 | 1.714 | 40.5 |
| XEFB/A | 0630 | 1.359 | 29.8 |
| KSLR | 0630 | 1.350 | 28.3 |
| ----- | | | |
| | 25% | ----- | |
| *KFXD-PRO | 0630 | 1.224 | 24.7 |
| KSUR | 0630 | 0.987 | 19.3 |
| CHED/ | 0630 | 0.831 | 16.0 |
| KCIS | 0630 | 0.780 | 14.8 |
| KHOW | 0630 | 0.738 | 13.8 |
| XEFX/A | 0630 | 0.661 | 12.3 |
| OAX1T-A | 0630 | 0.652 | 12.0 |
| KPOJ | 0620 | 0.647 | 11.8 |
| WREY | 0630 | 0.569 | 10.3 |

Protected Station: KHOW, 630 kHz - DENVER, CO, US
 Coordinates: 39-54-36 N, 104-54-50 W
 Standard: FCC Rules (1992 Skywave Propagation Model) [10%]

Current:

| Call | Freq (kHz) | Limit (mV/m) | (%) |
|----------|------------|--------------|-------|
| KFI | 0640 | 1.446 | 100.0 |
| KPLY | 0630 | 1.320 | 91.3 |
| KYFI | 0630 | 1.094 | 55.8 |
| ----- | | | |
| | 50% | ----- | ----- |
| CFCO/ | 0630 | 0.927 | 41.3 |
| KTNO | 0620 | 0.919 | 37.8 |
| OAX1T-A | 0630 | 0.862 | 33.2 |
| 630CKOV/ | 0630 | 0.828 | 30.2 |
| *KFXD | 0630 | 0.778 | 27.2 |
| ----- | | | |
| | 25% | ----- | ----- |
| KSLR | 0630 | 0.725 | 24.4 |
| KCIS | 0630 | 0.725 | 23.7 |
| XEFX/A | 0630 | 0.720 | 22.9 |
| CHED/ | 0630 | 0.689 | 21.4 |
| KTAR | 0620 | 0.662 | 20.1 |
| XEJB/A | 0630 | 0.591 | 17.6 |
| WREY | 0630 | 0.590 | 17.3 |
| XEACA/A | 0630 | 0.572 | 16.5 |
| 630CKRC/ | 0630 | 0.496 | 14.1 |
| XETK/A | 0630 | 0.477 | 13.4 |
| UNK-A | 0630 | 0.451 | 12.6 |
| XEFU/A | 0630 | 0.451 | 12.5 |
| XEFB/A | 0630 | 0.449 | 12.3 |
| YVJA-A | 0630 | 0.390 | 10.6 |

Proposed:

| Call | Freq (kHz) | Limit (mV/m) | (%) |
|------------------|-------------|--------------|-------------|
| KFI | 0640 | 1.446 | 100.0 |
| KPLY | 0630 | 1.320 | 91.3 |
| KYFI | 0630 | 1.094 | 55.8 |
| ----- | | | |
| | 50% | ----- | ----- |
| CFCO/ | 0630 | 0.927 | 41.3 |
| KTNO | 0620 | 0.919 | 37.8 |
| OAX1T-A | 0630 | 0.862 | 33.2 |
| 630CKOV/ | 0630 | 0.828 | 30.2 |
| KSLR | 0630 | 0.725 | 25.3 |
| ----- | | | |
| | 25% | ----- | ----- |
| KCIS | 0630 | 0.725 | 24.6 |
| XEFX/A | 0630 | 0.720 | 23.7 |
| CHED/ | 0630 | 0.689 | 22.0 |
| KTAR | 0620 | 0.662 | 20.7 |
| XEJB/A | 0630 | 0.591 | 18.1 |
| WREY | 0630 | 0.590 | 17.8 |
| XEACA/A | 0630 | 0.572 | 16.9 |
| 630CKRC/ | 0630 | 0.496 | 14.5 |
| XETK/A | 0630 | 0.477 | 13.8 |
| UNK-A | 0630 | 0.451 | 12.9 |
| XEFU/A | 0630 | 0.451 | 12.8 |
| XEFB/A | 0630 | 0.449 | 12.6 |
| *KFXD-PRO | 0630 | 0.439 | 12.2 |
| YVJA-A | 0630 | 0.390 | 10.8 |

Protected Station: 630CKOV/ , 630 kHz - Kelowna, BC, CA
 Coordinates: 49-50-52 N, 119-27-58 W
 Standard: Canadian (Figure 4) [10%]

Current:

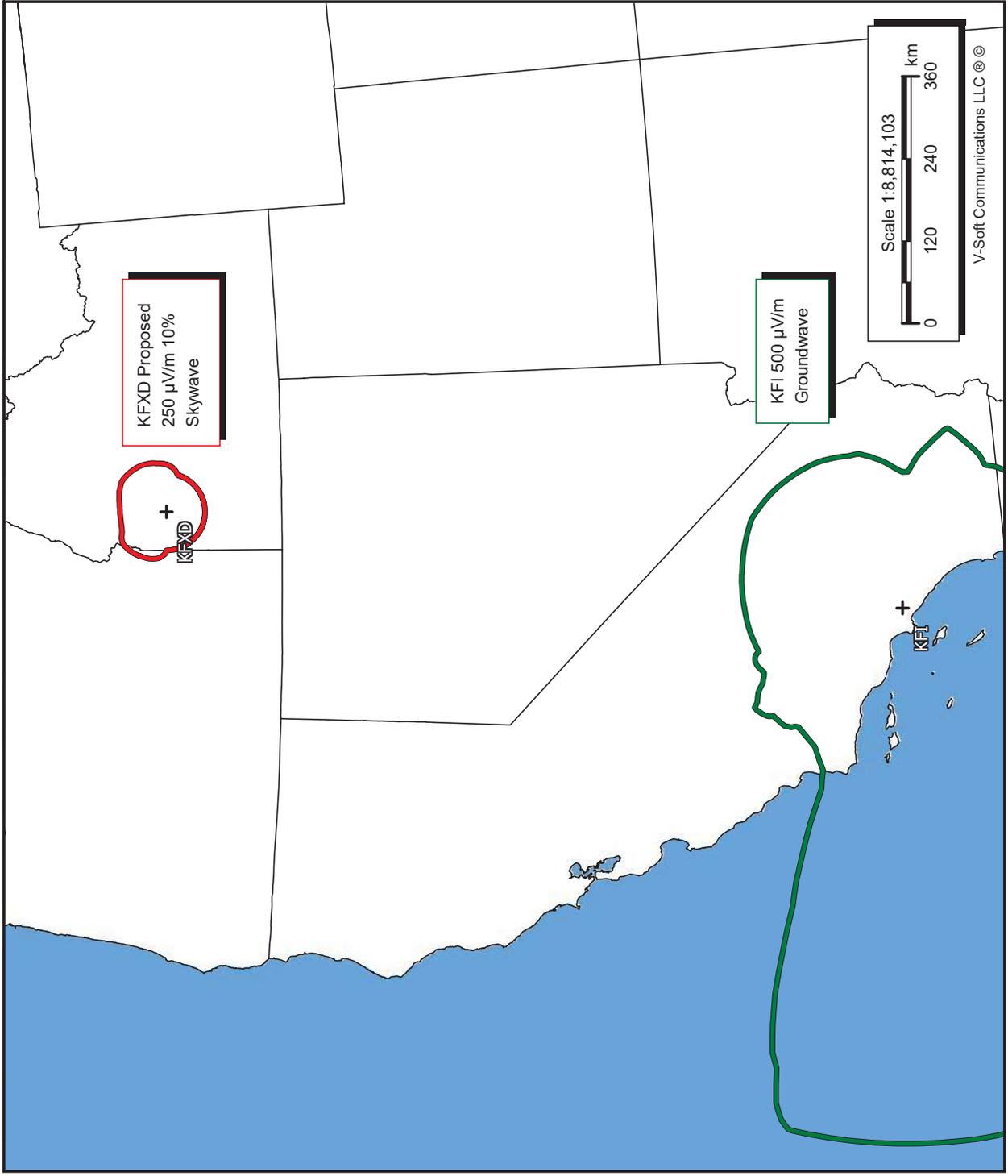
| Call | Freq (kHz) | Limit (mV/m) | (%) |
|----------|------------|--------------|-------|
| CHED/ | 0630 | 3.672 | 100.0 |
| KJNO | 0630 | 2.054 | 55.9 |
| ----- | | | |
| | 50% | ----- | ----- |
| KHOW | 0630 | 1.505 | 35.7 |
| WREY | 0630 | 1.466 | 32.8 |
| KCIS | 0630 | 1.245 | 26.4 |
| ----- | | | |
| | 25% | ----- | ----- |
| *KFXD | 0630 | 0.974 | 20.0 |
| CFCO/ | 0630 | 0.960 | 19.3 |
| KPLY | 0630 | 0.794 | 15.7 |
| CBKU/ | 0630 | 0.777 | 15.1 |
| 630CKRC/ | 0630 | 0.753 | 14.5 |
| KIAM | 0630 | 0.726 | 13.8 |

Proposed:

| Call | Freq (kHz) | Limit (mV/m) | (%) |
|------------------|-------------|--------------|-------------|
| CHED/ | 0630 | 3.672 | 100.0 |
| KJNO | 0630 | 2.054 | 55.9 |
| ----- | | | |
| | 50% | ----- | ----- |
| KHOW | 0630 | 1.505 | 35.7 |
| WREY | 0630 | 1.466 | 32.8 |
| KCIS | 0630 | 1.245 | 26.4 |
| ----- | | | |
| | 25% | ----- | ----- |
| *KFXD-PRO | 0630 | 1.059 | 21.7 |
| CFCO/ | 0630 | 0.960 | 19.2 |
| KPLY | 0630 | 0.794 | 15.6 |
| CBKU/ | 0630 | 0.777 | 15.1 |
| 630CKRC/ | 0630 | 0.753 | 14.5 |
| KIAM | 0630 | 0.726 | 13.8 |

KFXD
Freq: 630 kHz
Class: B
Latitude: 43-30-57 N
Longitude: 116-19-58 W
Power: 0.037 kW
RMS: 305.775 mV/m @1km
Towers: 1
Augs: 0

Skywave Protection of
Class A KFI



Statement of Engineer

This Engineering Report, relative to a change in facilities for KFXD(AM) has been prepared by the undersigned. All representations contained herein are true to the best of my knowledge. I am an experienced radio engineer whose qualifications are a matter of record with the Federal Communications Commission. I am an engineer in the firm of Hatfield and Dawson Consulting Engineers and am Registered as a Professional Engineer in the States of Washington and Oregon.

Signed this 10th day of February 2023



Thomas S. Gorton, P.E.