

CATHOLIC RADIO NETWORK, INC.  
NCE FM BROADCAST STATION KQOH  
FCC FORM 340 APPLICATION  
EXHIBIT 19, AUGUST, 2015

**SECTION 307(b) SHOWING**

The purpose of this application is to seek FCC approval of a change in city of license of NCE FM Broadcast Station KQOH, 91.9 MHz (Channel 220), from Marshfield, Missouri to Fair Grove, Missouri.

Marshfield, 2010 US Bureau of the Census (Census) population 6,633, is located in Webster County, which is part of both the Census-defined Springfield-Branson, Missouri Metropolitan Statistical Area (MSA) (which consists of seven southwest Missouri counties) and the Nielsen (formerly Arbitron) defined Springfield, Missouri Radio Metro Market (which consists of the Missouri counties of Christian, Greene and Webster). Marshfield's USGS National Atlas reference coordinates (37° 20' 23" N; 92° 54' 26" W) are 23.145 miles (37.248 km) east-northeast (64.25°) of the US Atlas reference coordinates of Springfield, Missouri, county seat of Greene County (37° 11' 42" N; 93° 17' 10" W). In addition to KQOH, Marshfield is the city of license of two primary commercial broadcast stations: KMRF(AM), 1510 kHz, Facility ID # 48536; and KKLH(FM), 104.7 MHz, Facility ID #24424.

Fair Grove, Missouri is an incorporated "Class 4 City" in Greene County, Missouri. Its 2010 Census population was 1,393. Its USGS National Atlas coordinates are 37° 22' 52" N and 93° 09' 04" W. Fair Grove is thus 13.726 miles (22.089 km) west (282.13°) of Marshfield and 14.834 miles (23.873 km) north-northeast (29.95°) of Springfield. Like Marshfield, Fair Grove is located in the Springfield-Branson MSA and the Springfield radio metro market. Fair Grove has no broadcast facilities in any service licensed to it as of this writing.

While Fair Grove does not appear to be a part of the Census-defined Springfield urbanized area, more than 50% of the 60 dBu contour of the KQOH technical facility proposed in this application would encompass the Springfield

urbanized area. Therefore, we are making the showing required by the *Second Report and Order in Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures (MB Docket No. 09-52)*, FCC 11-28, 26 FCC Rcd 2556 (March 3, 2011).

First, this is to demonstrate that Fair Grove is a community to which a broadcast station may be licensed pursuant to 47 U.S.C. §307(b). Fair Grove has a United States Post Office; zip code 65648. According to Fair Grove's municipal website, <http://fairgrove.org>, Fair Grove is governed by a Board of Aldermen consisting of a mayor and six aldermen. Fair Grove has a police department, municipal court, public works department, building/code department, city attorney, planning/zoning commission, senior housing agency and an emergency management office. It is served by the Fair Grove R-X School District, which is governed by a seven member school board; this district operates a public elementary school, middle school and high school located within the corporate boundaries of Fair Grove. These governmental bodies do not serve the city of Springfield so far as we can tell. Fair Grove also has its own Fire Protection District and Water District. Members of Fair Grove's business and civic community can be found at this link: <http://www.fairgrovemmo.org/business-directory.html>. It does not appear that Fair Grove has a local newspaper or its own telephone book at the present time.

Based on the foregoing, Fair Grove is a community to which a radio station can be licensed. Fair Grove does not have broadcast stations in any service licensed to it at the present time. The relocation of KQOH(FM) from Marshfield to Fair Grove would provide that community with its first local aural service. The Commission has recognized that non-commercial educational stations count for purposes of fulltime aural service. See e.g. *FM Table of Allotments, Oolitic and Worthington, Indiana*, 24 FCC Rcd 4572 (Bureau, 2009).

### **Tuck Criteria**

With respect to Fair Grove's relationship with the county seat city of Springfield some 14.834 miles to the southwest via US Highway 65, here is the analysis required by *Faye and Richard Tuck*, 3 FCC Rcd 5374, 5378:

(1) *the extent to which the community residents work in the larger metropolitan area, rather than the specified community:* a local planning agency, Ozark Transportation Organization, studied this issue and released a report in April, 2012 that indicated that only 17% of Fair Grove’s residents commuted to Springfield (source: [http:// ozarkstransportation.org /Documents/OTO\\_RegionalServiceAnalysis\\_Apr2012.pdf](http://ozarkstransportation.org/Documents/OTO_RegionalServiceAnalysis_Apr2012.pdf)):

**Table 1: Regional City Characteristics**

| City         | Population <sup>1</sup> | Workers<br>Commuting to<br>Springfield <sup>2</sup> | % of Population<br>Commuting to<br>Springfield | Travel<br>Time<br>(min) <sup>3</sup> |
|--------------|-------------------------|---|--|--------------------------------------|
| Ash Grove    | 1,472                   | 235   | 16%  | 34                                   |
| Battlefield  | 5,590                   | 1,849   | 33%  | 22                                   |
| Branson      | 10,520                  | 357   | 3%   | 54                                   |
| Fair Grove   | 1,393                   | 238   | 17%  | 28                                   |
| Nixa         | 19,022                  | 4,934   | 26%  | 24                                   |
| Ozark        | 17,820                  | 3,939   | 22%  | 28                                   |
| Republic     | 14,751                  | 3,486   | 24%  | 27                                   |
| Rogersville  | 3,073                   | 108   | 4%   | 30                                   |
| Strafford    | 2,358                   | 385   | 16%  | 23                                   |
| Walnut Grove | 665                     | 86  | 13%  | 36                                   |
| Willard      | 5,288                   | 1,151   | 22%  | 24                                   |

<sup>1</sup> US Decennial Census, 2010

<sup>2</sup> LEHD, 2009

<sup>3</sup> Generated using Google Maps route planner

(2) *whether the smaller community has its own newspaper or other media that covers the community’s needs and interests;* Fair Grove does not have a local newspaper.

(3) *whether community leaders and residents perceive the specified community as being an integral part of or separate from, the larger metropolitan area;* while Fair Grove is in the same county and media market as Springfield, it has its own unique institutions, such as its own municipal government, its own police department, its own fire department, its own water department and its own school system

(4) *whether the specified community has its own local government and elected officials;* as noted above, Fair Grove has its own elected mayor and board of aldermen and its own school board.

(5) *whether the smaller community has its own local telephone book provided by the local telephone company or zip code*; Fair Grove does have its own zip code, 65648.

(6) *whether the community has its own commercial establishments, health facilities, and transportation systems*; an on-line listing of commercial establishments compiled by the Fair Grove Chamber of Commerce is attached.

(7) *the extent to which the specified community and the central city are part of the same advertising market*; Fair Grove is part of the Nielsen-defined Springfield, Missouri television DMA and the Nielsen-defined Springfield, Missouri radio metro market.

(8) *the extent to which the specified community relies on the larger metropolitan area for various municipal services*: Fair Grove has a branch library operated by the Springfield-Greene County Library District; otherwise, it has its own police, fire, water, emergency management and senior housing agencies and its own K-12 public school district.

We would point out that in the past, the Commission has licensed full-power FM broadcast stations to the following five communities in Greene County, Missouri outside Springfield: Ash Grove (2010 Census population 1,472) (KSGF-FM); Brookline (not listed in 2010 Census; 2000 Census population of 326) (KQRA); Nixa (2010 Census population 19,022) (KGBX); Republic (2010 Census population 14,751) (KADI); and Willard (2010 Census population 5,278) (KOMG).

Fair Grove is at least as independent from Springfield as any of those communities. There is nothing in the *Faye and Richard Tuck* criteria discussed above that can preclude a move of KQOH to Fair Grove. It would be arbitrary and capricious, to say the least, for the Commission not to allow KQOH to move to Fair Grove, in light of the Commission licensing all of the foregoing radio stations to the smaller communities in Greene County outside of Springfield, including Nixa and Republic, which appear to be close-in suburbs of Springfield.

### **Other Section 307(b) Analysis**

By contrast, should the Commission permit KQOH(FM) to be relocated from Marshfield to Fair Grove, Marshfield will still have two local commercial aural broadcast services, KMRF(AM) and KKLH(AM).

Moreover, the relocation of KQOH(FM) from Marshfield to Fair Grove will result in a vastly more efficient use of the broadcast spectrum. As determined by the broadcast engineering consultants Charles A. Hecht & Associates, Inc., the KQOH's licensed facility presently provides protected contour (60 dBu) service to 28,310 persons within a land area of 1,014 square kilometers. In the event that the Commission grants this application, KQOH will be able to provide protected contour (60 dBu) service to 263,084 persons residing within a land area of 1,757 square kilometers. This represents a net gain of 234,474 persons, or more than 828%, and a net gain of 743 square kilometers, or more than 73.2%, served within the KQOH 60 dbu contour.

With respect to gain and loss areas, Hecht & Associates, Inc. determined that KQOH's protected contour (60 dBu) will gain 251,429 persons within an area of 743 square kilometers; by contrast, 16,655 persons within an area of 621 square kilometers will lose protected contour (60 dBu) service from KQOH.

The entire loss area receives daytime and nighttime 60 dBu or better predicted contour service from at least seven commercial FM stations and two non-commercial educational (NCE) FM stations. The commercial stations are: KTTS-FM, Channel 234C, Springfield, MO; KXUS(FM), Channel 247C1, Springfield, MO; KWTO-FM, Channel 254C1, Springfield, MO; KTXR(FM), Channel 267C, Springfield, MO; KTRI-FM, Channel 240C3, Mansfield, MO; KKLH(FM), Channel 284C2, Marshfield, MO; and KGBX-FM, Channel 290C2, Nixa, MO. The NCE stations are: KWND(FM), Channel 202C1, and KWFC(FM), Channel 206C, both Springfield, MO.

The FCC has stated that the FM allotment priorities are: (1) first fulltime aural service; (2) second fulltime aural service; (3) first local service; and (4) other public interest matters. Co-equal weight is given to priorities (2) and (3). *See Revision of FM Assignment Policies and Procedures, Second Report and Order*, 90 FCC Rcd 88 (1982), *recon. denied, Memorandum Opinion and Order*, 56 RR2d 448 (1983), cited in *Oolitic and Worthington, Indiana, supra*.

The instant application would provide a first local aural service to Fair Grove, Missouri, while two full-time aural services, KMRF and KKLH, will remain at Marshfield. Moreover, according to the Hecht firm, Marshfield enjoys reception service from an additional 4 AM stations and 11 FM stations. Furthermore, as previously noted a relocation of KQOH(FM) to Fair Grove will result in an 828% increase in population receiving primary service (60 dBu contour) from KQOH (FM) from 28,310 to 263,084 persons. Therefore, the mandate of 47 U.S.C. §307(b) and the public interest inherent in efficient use of the spectrum and provision of new radio service to as many persons as possible would be best served by allowing the relocation of KQOH(FM) to Fair Grove, Missouri. The public interest, convenience and necessity would be well served by a grant of this application.

With respect to the issues and questions for applicants such as Catholic Radio Network, Inc. posed by FCC 11-28, *supra*, at ¶39, KQOH's proposal will not create any white or gray areas, as the entire KQOH loss area receives service from at least seven full-time commercial FM stations and two full-time NCE FM stations. It therefore follows that none of the loss area will lose a third, fourth or fifth aural broadcast service. If this application is granted, Marshfield will continue to have two local aural broadcast services, KMRF and KKLH, as well as 13 other aural broadcast reception services.

Catholic Radio Network, Inc. is prosecuting this application in order to bring the following public interest benefits to southwest Missouri: (1) a first local broadcast outlet at Fair Grove, Missouri; and (2) improved service to southwest Missouri radio listeners who are either Roman Catholic or who would like to listen to educational and inspirational programming based on the immemorial tenets of the Roman Catholic religion.

As noted above, the Tuck analysis does not preclude the Commission from concluding that Fair Grove is an independent community for purposes of Section 307(b); it is at least as independent as Ash Grove, Brookline, Nixa, Republic and Willard are from Springfield; in fact, Brookline is no longer a village and was not even listed in the 2010 Census, and Nixa and Republic are close-in suburbs of Springfield.

The Commission has in the past commented on the public interest benefits inherent on having a radio format available to listeners which differs from the content of the other radio stations operating in a given market; see e.g. ***Economic Impact of Low-Power FM Stations on Commercial FM Radio***, 27 FCC Rcd 3 (January 5, 2012); ***Pillar of Fire (WAWZ-FM)***, FCC 84R-95, 57 RR 2d 601 (dissenting statement of Board Member Jerold L. Jacobs) (Catholic programming deserving of “fair break”).

To conclude, this is not the kind of “rural” to “suburban” move-in case that was contemplated by the FCC’s 2011 FCC 11-28 order. However, because KQOH would be serving most of the Springfield urbanized area for the first time, we are caught up in FCC 11-28’s “net”. KQOH is already licensed to a community within the Springfield metropolitan area. KQOH is merely trying to improve its service within that metropolitan area. KQOH’s proposal is for the highest and best use of Channel 220 in the Springfield metropolitan area consistent with the principles of first local broadcast service (to Fair Grove, Missouri) and the most efficient use of the broadcast spectrum (a net population gain of 234,474 persons). Our application therefore serves the public interest, convenience and necessity and must be granted.

|            |   |                  |   |            |  |
|------------|---|------------------|---|------------|--|
| ARCHITECTS | <b>IRELAND ARCHITECTS</b><br>1908 E Sunshine<br>Springfield MO 65804<br>417-881-3409<br><a href="http://irelandarchitects.com">irelandarchitects.com</a>  | GREENHOUSE       | <b>HAMPTON'S GREENHOUSE</b><br>6817 State Hwy 38,<br>Marshfield MO 65706<br>417-859-4855<br><a href="http://cornfieldmaze.com">cornfieldmaze.com</a>  | PUBLISHING | <b>VITAL IMAGES, INC</b><br><b>YOUR NEW HOME MAGAZINE</b><br><b>CHAMBER DIRECTORIES</b><br>PO Box 43<br>Fair Grove MO 65648<br>417-759-1175<br><a href="http://yournewhomemag.com">yournewhomemag.com</a>  |
| AUTOMOTIVE | <b>BODY BUILDERS BODY SHOP</b><br>8874 E HWY E<br>Fair Grove MO 65648<br>417-759-6410<br><a href="http://bodybuilderspaint.com">bodybuilderspaint.com</a><br><br><b>EXCEL AUTOMOTIVE INC</b><br>7891 E Farm Rd 2,<br>Fair Grove MO 65648<br>417-759-7506<br><br><b>O'REILLY AUTO PARTS</b><br>94 Old Mill Rd,<br>Fair Grove MO 65648<br>417-759-2010<br><a href="http://oreillyauto.com">oreillyauto.com</a><br><br><b>PREMIER AUTOMOTIVE</b><br>32 W Old Mill Rd,<br>Fair Grove MO 65648 |                  | <b>IRONWOOD GREENHOUSE</b> S Ironwood<br>Trail<br>Buffalo MO 65622<br>417-343-1212<br><br><b>TEALS GREENHOUSE</b><br>Hwy 125 & Main Street<br>Fair Grove MO 65648<br>417-759-6171<br><br><b>CITIZENS MEMORIAL</b><br>1500 N Oakland Ave<br>Bolivar MO 65613<br>417-328-6010<br><a href="http://citizensmemorail.com">citizensmemorail.com</a> | PROPANE    | <b>MS PROPANE GAS</b><br>1655 S Enterprises Ste B<br>Springfield MO 65804<br>417-759-1717<br><a href="http://mspropane.com">mspropane.com</a><br><br><b>TITAN PROPANE</b><br>217 S Grove Rd<br>Fair Grove MO 65648<br>417-759-2615<br><a href="http://titanpropane.com">titanpropane.com</a> |
|            |   | HEALTH & MEDICAL |   | PHARMACIES | <b>FAMILY PHARMACIES</b><br>49 E Old Mill Rd<br>Fair Grove MO 65648<br>417-759-6300<br><a href="http://thefamilyrx.com">thefamilyrx.com</a>  |

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|---------------|--|--|---|-----------------------|--|
|               | 417-759-2550<br><a href="http://premierautofg.com">premierautofg.com</a><br><br><b>WEST AUTOMOTIVE</b><br>10329 N West Lane<br>Fair Grove MO 65648<br>417-207-3433   |  | <b>FAIR GROVE HOME HEALTH CARE</b><br>11109 N Farm Rd 199<br>Fair Grove MO 65648<br>417-942-4093<br><br><b>MERCY FAMILY PRACTICE</b><br>363 E Route 66,<br>Strafford MO 65757<br>417-736-9175<br><a href="http://mercy.net">mercy.net</a><br><br><b>R &amp; L ENVIROCARE</b><br>PO Box 135,<br>Fair Grove MO 65648<br>417-942-2451<br><a href="http://rlenvirocaremo.com">rlenvirocaremo.com</a><br><br><b>CIRCLE Y RANCH</b><br>241 Olive Rd,<br>Fair Grove MO 65648<br>417-838-7784<br><a href="http://circleyranch.biz">circleyranch.biz</a> | REAL ESTATE & RENTALS | <b>CHARLES HUFF - MURNEY &amp; ASSOCIATES</b><br>1625 E Primrose<br>Springfield MO 65807<br>417-838-4444<br><a href="http://charleshuff.murney.com">charleshuff.murney.com</a><br><br><b>LAST LIGHT RENTALS</b><br>6175 E Grace Land<br>Fair Grove MO 65643<br>417-859-3250<br><br><b>LEAH AVERS - CENTURY REALTY SIQ</b><br>1441 Spur,<br>Marshfield MO 65706<br>417-839-7966<br><a href="http://leahavers.com">leahavers.com</a><br><br><b>OLD MILL APARTMENTS</b><br>1301 Old Mill Cir<br>Fair Grove MO 65648<br>417-759-9406<br><br><b>TAMMIE TUCKER - AR WILSON REALTORS®</b><br>2032 E Kearney<br>Springfield MO 65803<br>417-838-1600 |
| BANKS         | <b>BANK OF BOLIVAR</b><br>40 N Main St<br>Fair Grove MO 65648<br>417-759-6500<br><a href="http://bankofbolivar.com">bankofbolivar.com</a><br><br><b>EMPIRE BANK</b><br>21 N Orchard<br>Fair Grove MO 65648<br>417-759-2593<br><a href="http://empirebank.com">empirebank.com</a><br><br><b>O'BANNON BANK</b><br>101 N Union Grove<br>Fair Grove MO 65648<br>417-759-2251<br><a href="http://obannonbank.com">obannonbank.com</a> | HEAT & AIR<br><br><br>HORSE BOARDING & STABLES<br><br><br>INSURANCE AGENCIES |   |                       |  |
| BEAUTY SALONS | <b>MODERN WAVES</b><br>115 W Old Mill Rd,<br>Fair Grove MO 65648<br>417-759-2020   |  | <b>BRADLEY DANIELS - SHELTER INSURANCE</b><br>108 West Old Mill Road,<br>Fair Grove MO 65648<br>417-759-6000  |                       |  |



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|------------------------------------|--|--|--|----------------------|---|
| BOAT<br>REPAIR                     | <b>FAIR GROVE MARINE</b><br>11578 N Farm Rd 221<br>Fair Grove MO 65648<br>417-759-7903<br><a href="http://fairgrovemarine.com">fairgrovemarine.com</a>     | 417-759-6000<br><a href="http://Shelterinsurance.com/BDaniels">Shelterinsurance.com/BDaniels</a>   |  |                      | 417-864-4600<br><a href="http://arwilsonrealtors.com">arwilsonrealtors.com</a>                    |
|                                    |  | <b>GREG THOMAS -<br/>FARMERS INSURANCE</b><br>2005 E Kearney<br>Springfield MO 65803<br>417-862-1711<br><a href="http://farmersagent.com/gthomas">farmersagent.com/gthomas</a> |  | RECYCLING<br>CENTERS | <b>DALLAS COUNTY<br/>RECYCLING CENTER</b><br>59 Candlewood Rd<br>Buffalo MO 65622<br>417-345-9800 |
| CERTIFIED<br>PUBLIC<br>ACCOUNTANTS | <b>DEBRA MURRAY, CPA</b><br>4727 E Ehren Ln<br>Fair Grove MO 65648<br>417-833-4487   |  |  |                      |   |
| CHURCHES                           | <b>CEDAR BLUFF<br/>BAPTIST CHURCH</b><br>8505 E State Hwy E<br>Fair Grove MO 65648<br>417-207-2573<br><a href="http://cedar-bluff.org">cedar-bluff.org</a> |  |  | RESTAURANTS          | <b>COOL YOUR JETS</b><br>98 South Main Street<br>Fair Grove MO 65648<br>417-631-9307              |
|                                    | <b>COWBOY CHURCH<br/>OF FAIR GROVE</b><br>PO BOX 262<br>Fair Grove MO 65648<br>417-848-7378  | INTERNET<br>SERVICES   | <b>TOTAL HIGHSPEED</b><br>1091 W Kathryn St Suite 4<br>Nixa MO 65714<br>417-851-1107<br><a href="http://totalhighspeed.com">totalhighspeed.com</a> |                      | <b>HILLTOP PIZZA</b><br>91 S Main<br>Fair Grove MO 65648<br>417-759-7794                          |
|                                    | <b>FAIR GROVE<br/>UNITED METHODIST</b><br>83 E Hickory<br>Fair Grove MO 65648<br>417-759-2508  | LAWN &<br>GARDEN   | <b>TRACTORWRKS</b><br>134 E Chestnut<br>Fair Grove MO 65648<br>417-840-4024  | RETAIL               | <b>OVERSTOCK OUTLET</b><br>52 W Enterprise<br>Fair Grove MO 65648<br>417-759-9060                 |
|                                    |  |  | <b>LB'S MOWING, LLC</b><br>1288 N Crossway Road<br>Fair Grove MO 65648   | STORAGE              | <b>A-ABUNDANT STORAGE</b><br>547 E Old Mill Road<br>Fair Grove MO 65648<br>417-830-0229           |

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| COMPUTERS<br>& SOFTWARE | <b>PEACE CHAPEL<br/>ASSEMBLY OF GOD</b><br>9260 N Farm Rd 183<br>Fair Grove MO 65648<br>417-759-2945<br><a href="http://peacechapelas.org">peacechapelas.org</a>                   | LOGGING            | <b>WEST LOGGING</b><br>9053 E State Hwy E<br>Fair Grove MO 65648<br>417-569-0648<br><a href="http://westlogging.com">westlogging.com</a>                     |                    | TRANSMISSION<br>163 W Cherry<br>Fair Grove MO 65648<br>417-759-9222                                |
|                         | <b>CLARITY SOFTWARE<br/>SYSTEMS</b><br>5737 E Brookmeadow Dr,<br>Fair Grove MO 65648<br>417-864-4404<br><a href="http://Claritysoftwaresystems.com">Claritysoftwaresystems.com</a> | MARINAS            | <b>FELLOWS LAKE MARINA</b><br>4208 E Farm Rd 66,<br>Springfield MO 65803<br>417-833-2058<br><a href="http://fellowslakemarina.com">fellowslakemarina.com</a> | TRASH<br>SERVICE   | <b>OZARK MOUNTAIN<br/>SANITATION</b><br>3459 E Farm Road 34<br>Fair Grove MO 65648<br>417-207-0883 |
|                         | <b>JOHN'S TECH SHOP</b><br>209 Spring Grove Road,<br>Elkland MO 65644<br>417-345-7379<br><a href="http://.johnstechshop.com">.johnstechshop.com</a>                                | MEAT<br>PROCESSING | <b>HORRMAN MEAT<br/>COMPANY</b><br>690 Red Top Rd,<br>Fair Grove MO 65648<br>417-759-2027<br><a href="http://horrmannmeat.com">horrmannmeat.com</a>          | TRAVEL<br>AGENCIES | <b>CRUISE-N-SAND<br/>TRAVEL, LLC</b><br>PO Box 43,<br>Elkland MO 65644<br>417-759-2208             |
| CONCEAL &<br>CARRY      | <b>D.A.B. DEFENSE</b><br>1003 Longhorn<br>Fair Grove MO 65648<br>417-440-0118  |                    | <b>TURNER MEAT PROCESSING</b><br>140 West Old Mill Rd<br>Fair Grove MO 65648<br>417-759-2032   |                    | <b>CRUISE PLANNERS</b><br>211 Firefly Ln<br>Fair Grove MO 65648<br>417-329-5111                    |
| CONSTRUCTION            | <b>TRIMCO CONSTRUCTION</b><br>8350 E Farm Road 2<br>Fair Grove MO 65648<br>417-522-3465  | MARTIAL<br>ARTS    | <b>FAIR GROVE MARTIAL ARTS</b><br>102 S Main<br>Fair Grove MO 65648<br>417-759-2032  | TREE SERVICE       | <b>HODGES TREE SERVICE</b><br>511 Maple St<br>Fair Grove MO 65648<br>417-759-9222                  |
|                         |  | MOBILE             | <b>ACRES OF SHADE</b><br>836 N. Farm Rd 221<br>Fair Grove MO 65648<br>417-759-7903   |                    | <b>KT FARM &amp; TREE SERVICE</b><br>64 Redbud Cabin Ln<br>Fair Grove MO 65648<br>417-844-7698     |

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|-------------------|--|-------------------------|--|--|
| DAYCARE           | 417-922-3403<br><b>THE LITTLE SCHOOL</b><br>163 W Saddle Club Rd,<br>Fair Grove MO 65648<br>417-759-7477<br><a href="http://littleschoollearning.com">littleschoollearning.com</a>       | MOBILE<br>HOME<br>PARKS | <b>ACRES OF SHADE</b><br>825 Mountain Oak Dr<br>Strafford MO 65757<br>417-209-5031   | 417-844-7698<br><a href="http://farmandtree.com">farmandtree.com</a>   |
| DENTISTS          | <b>CLEAR CREEK<br/>FAMILY DENTAL</b><br>101 S State Hwy 125, Suite A<br>Strafford MO 65757<br>417-631-4490<br><a href="http://clearcreekfamilydental.com">clearcreekfamilydental.com</a> | NEWSPAPERS              | <b>BUFFALO REFLEX</b><br>114 E Lincoln, PO Box 770<br>Buffalo MO 65622<br>417-345-2224<br><a href="http://buffaloreflex.com">buffaloreflex.com</a>   | <b>TRUCK &amp;<br/>TRAILER<br/>REPAIRS</b><br>11247 N Farm Road 177<br>Fair Grove MO 65648<br>417-299-2189   |
| ENGINE<br>REPAIR  | <b>FAIR GROVE SMALL<br/>ENGINE SERVICE</b><br>4790 E State Hwy CC,<br>Fair Grove MO 65648<br>417-759-2653  | ORGANIZATIONS           | <b>AMERICAN LEGION</b><br>86 S Main Street<br>Fair Grove MO 65648<br>417-759-2432<br><br><b>FAIR GROVE<br/>SENIOR CENTER</b><br>83 E Hickory St<br>Fair Grove MO 65648<br>417-839-2914<br><a href="http://fairgroveseniors.org">fairgroveseniors.org</a> | <b>WATER PUMP<br/>SERVICES</b><br><b>CROSS PUMP SERVICE</b><br>PO Box 179<br>Fair Grove MO 65648<br>417-759-2533<br><br><b>JR CHOATE PUMP SERVICE</b><br>2072 E 546th Rd<br>Pleasant Hope MO 65725<br>417-267-5154 |
| FARM &<br>HOME    | <b>MFA FARM &amp; HOME</b><br>300 Eagle Ridge,<br>Fair Grove MO 65648<br>417-759-2525<br><a href="http://mfa-inc.com">mfa-inc.com</a>  |                         | <b>HEART 2 HEART<br/>OUTREACH MINISTRIES</b><br>PO Box 223<br>Fair Grove MO 65648<br>417-759-7043<br><a href="http://heart2heartoutreachministries.org">heart2heartoutreachministries.org</a>  | <b>WELDING</b><br><b>D &amp; D WELDING</b><br>2468 Hwy 215<br>Buffalo MO 65622<br>417-267-2224   |
| FARMERS<br>MARKET | <b>FAIR GROVE<br/>FARMERS MARKET</b><br>Hwy 125 & Main Street<br>Fair Grove MO 65648   |                         | <b>HISTORICAL SOCIETY</b>  | <b>VETERINARIANS</b><br><b>FAIR GROVE<br/>VETERINARY SERVICE</b><br>5348 E State Hwy CC,<br>Fair Grove MO 65648<br>417-759-7803<br><a href="http://fairgrovetvet.com">fairgrovetvet.com</a>                        |

|                   |  |   |   |
|-------------------|--|---|---|
| FARMERS<br>MARKET | <b>FAIR GROVE<br/>FARMERS MARKET</b><br>Hwy 125 & Main Street<br>Fair Grove MO 65648<br>417-894-7653<br><a href="http://fairgrovefarmersmarket.com">fairgrovefarmersmarket.com</a> | Fair Grove MO 65648<br>417-759-7043<br><a href="http://heart2heartoutreachministries.org">heart2heartoutreachministries.org</a>   | Fair Grove MO 65648<br>417-759-7803<br><a href="http://fairgrovetvet.com">fairgrovetvet.com</a> |
| GIFT<br>SHOP      | <b>ALCHEMY<br/>RESTORATION</b><br>75 S Main Street<br>Fair Grove MO 65648<br>417-229-2982<br><a href="http://refunkified.com">refunkified.com</a>                                  | <b>HISTORICAL SOCIETY</b><br>PO Box 93<br>Fair Grove MO 65648<br>417-759-2807<br><a href="http://fgphs.org">fgphs.org</a><br><br><b>WATER DISTRICT #5</b><br>PO Box 37<br>Fair Grove MO 65648<br>417-759-7066<br><a href="http://fairgrovewater.org">fairgrovewater.org</a> |            |

APPENDIX TO ENGINEERING REPORT COVERING  
REQUEST FOR MODIFICATION OF CONSTRUCTION PERMIT  
TECHNICAL NARRATIVE IN SUPPORT OF CITY OF LICENSE CHANGE  
ON BEHALF OF CATHOLIC RADIO NETWORK, INC.  
FOR KQOH(FM) 91.9 MEGAHERTZ  
FAIR GROVE, MISSOURI

AUGUST 2015

APPENDIX TO ENGINEERING REPORT COVERING  
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STATEMENT

This technical narrative and accompanying engineering exhibits have been prepared on behalf of Catholic Radio Network, Inc. (“CRN”), licensee of non-commercial educational (“NCE”) station KQOH(FM) Marshfield, Missouri, in support of an application for modification of WBUR construction permit BNP-20081112ALH. The minor modification application includes a request to change city of license from Marshfield, Missouri to Fair Grove, Missouri.

As can be seen in Figure 1A, the facilities specified in the instant modification are mutually exclusive with the KQOH licensed facilities<sup>1</sup>. Therefore, this application qualifies for a city of license change and the modification is appropriately requested as a minor modification application. See 47 C.F.R. Section 73.3571(j).

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<sup>1</sup> The distance between transmitter sites is 21.95 kilometers.

**TABLE OF EXHIBITS ACCOMPANYING THIS NARRATIVE**

|           |   |
|-----------|---|
| FIGURE 1A | Map Demonstrating Mutual Exclusivity of License and Proposed Facilities |
| FIGURE 2A | KQOH 60 dbu Service Comparison  |
| FIGURE 3A | Map of Protected AM Service to Existing Community of License            |
| FIGURE 4A | Map of Protected FM Service to Existing Community of License            |
| FIGURE 5A | Map of City Grade Service to Proposed Community of License              |
| TABLE 1A  | Table of AM Stations Providing Service to Existing Community of License |
| TABLE 2A  | Table of FM Stations Providing Service to Existing Community of License |

### AREA AND POPULATION DATA

The proposed 60 dbu contour population associated with this proposal will provide service to 263,084 persons within a land area of 1,757 square kilometers, while the license 60 dbu contour will provide service to 28,310 persons within a land area of 1,014 square kilometers. The proposed population gain is 251,429 within a land area of 743 square kilometers. The proposed population loss is 16,655 within a land area of 621 square kilometers. Overall, there is a net gain of 234,474 persons and a net gain of 743 square kilometers served within the proposed KQOH 60 dbu contour.<sup>2</sup>

### EXISTING SERVICE

There are 17 stations, 4 AM and 13 FM, excluding KQOH, that provide service to Marshfield<sup>3</sup>. It is obvious by looking at Figures 3A and 4A that the 60 dbu contour loss area will continue to be well served by numerous other aural services. The proposal to relocate to Fair Grove<sup>4</sup> will provide Fair Grove with its first local service and not result in the creation of any “white” or “grey” service area. (The service count is based on stations which provide service to at least 80 percent of the area of Marshfield. As per FCC definitions, service for AM facilities is the daytime 2 mv/m contour, and for FM facilities, the 60 dbu contour except for Class B and B1 facilities, which are respectively the 54 and 57 dbu contours.)

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<sup>2</sup> See Figure 2A.

<sup>3</sup> See Figures 3A and 4A, Tables 1A and 2A.

<sup>4</sup> Stations KMRF(AM) and KKLH(FM) are licensed to Marshfield.

### COMPLIANCE WITH FCC RULES

Operation from the proposed transmitter site would provide the requisite city grade 60 dbu service to 50% of Fair Grove as per Section 73.515 of the rules. Figure 5A is a map of the city grade service area. The proposed operation would provide 60 dbu service to 100% of Fair Grove.

### METHODOLOGY

The AM predicted coverage contours were calculated in accordance with the provisions of 47 C.F.R. Section 73.182. The FM predicted coverage contours were calculated in accordance with the provisions of 47 C.F.R. Section 73.313.

The population within the service contours was calculated using a computer program that utilizes the 2010 U.S. Census database of “population centroids.” The program adds the populations of those U.S. Census designated areas whose centroid lies within each service area. Land areas were calculated using a root mean square algorithm.

## CONCLUSION

Granting the request to reassign KQOH to the community of Fair Grove would provide an overall preferential arrangement of allotments that would serve the public interest. Fair Grove will receive its first local service and the community of Marshfield will continue to have copious service from the 17 stations that provide protected service to Marshfield<sup>5</sup>. All of the loss areas would continue to be well-served by five or more aural reception services<sup>6</sup>. Therefore, CRN requests a construction permit for KQOH to specify Fair Grove, Missouri as the community of license, in lieu of Marshfield, Missouri, and to authorize the other technical changes requested in this application.

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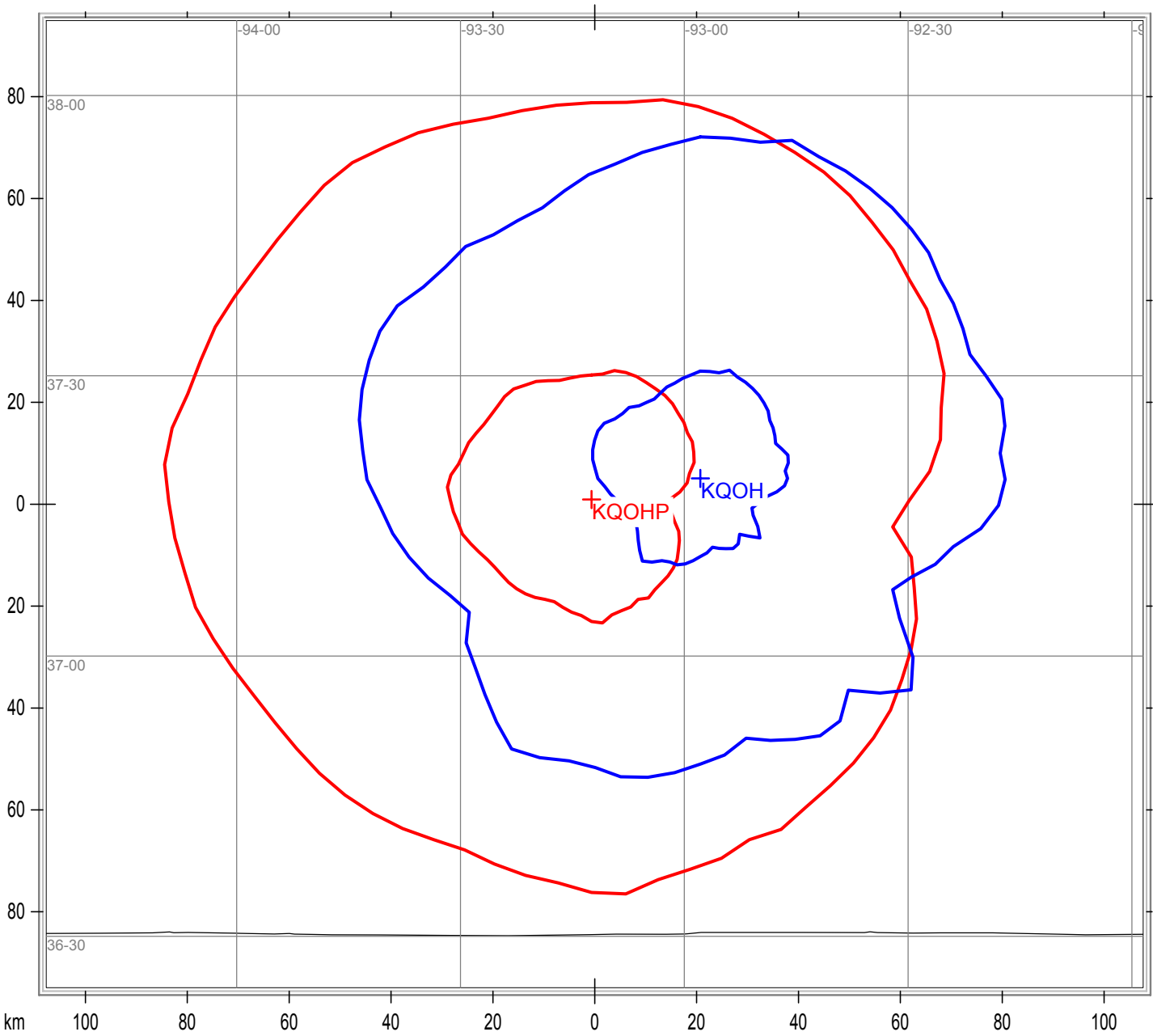
<sup>5</sup> See Figures 3A and 4A, Tables 1A and 2A.

<sup>6</sup> Based on Figures 3A and 4A, it can be safely concluded that in excess of ten stations provide service to the loss areas.



FIGURE 1A - MUTUAL EXCLUSIVITY MAP

CONTOURS SHOWN ARE 60 DBU AND 40 DBU FOR LICENSED AND PROPOSED FACILITIES

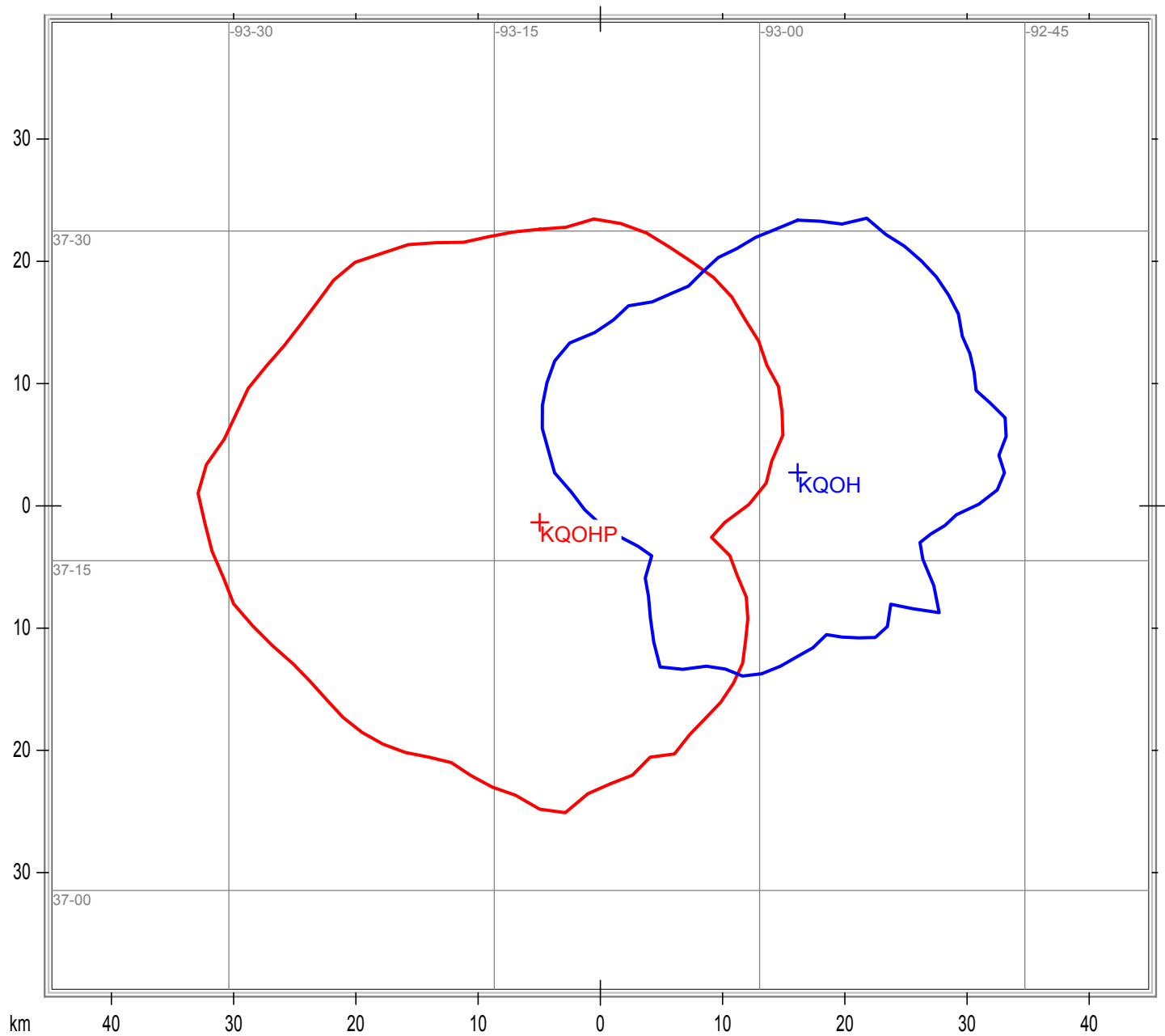


KQOH CHANNEL 220A 91.9 MEGAHERTZ FAIR GROVE, MISSOURI

State Borders Lat/Lon Grid

# FIGURE 2A - 60 DBU CONTOUR COMPARISON

LICENSED CONTOUR SHOWN IN BLUE AND PROPOSED CONTOUR IN RED

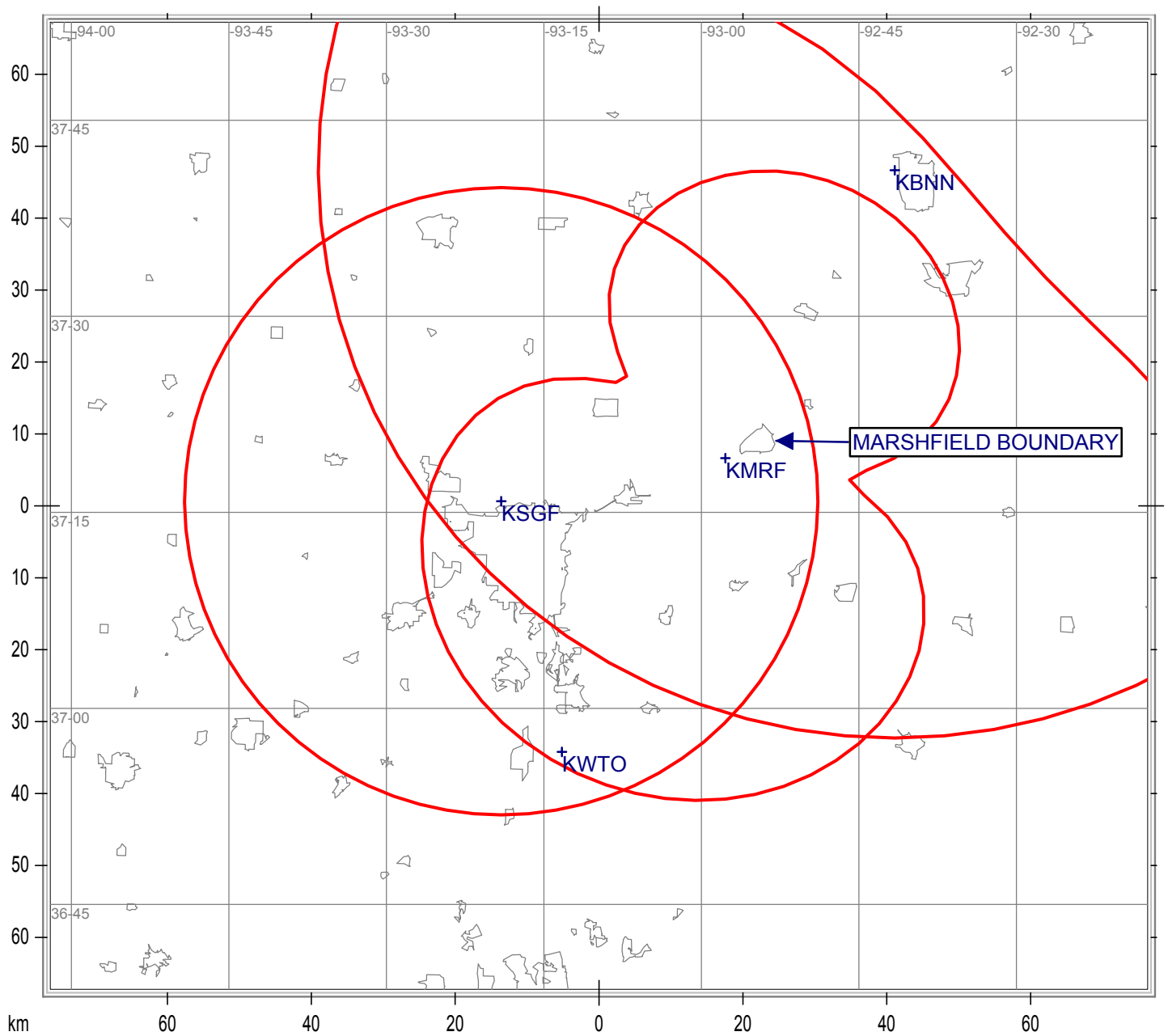


KQOH CHANNEL 220A 91.9 MEGAHERTZ FAIR GROVE, MISSOURI

State Borders Lat/Lon Grid

# FIGURE 3A - 2 MV/M AM DAY SERVICE TO MARSHFIELD, MO

SUBMITTED IN SUPPORT OF APPLICATION TO RELOCATE TO FAIR GROVE, MISSOURI



KQOH CHANNEL 220A 91.9 MEGAHERTZ FAIR GROVE, MISSOURI

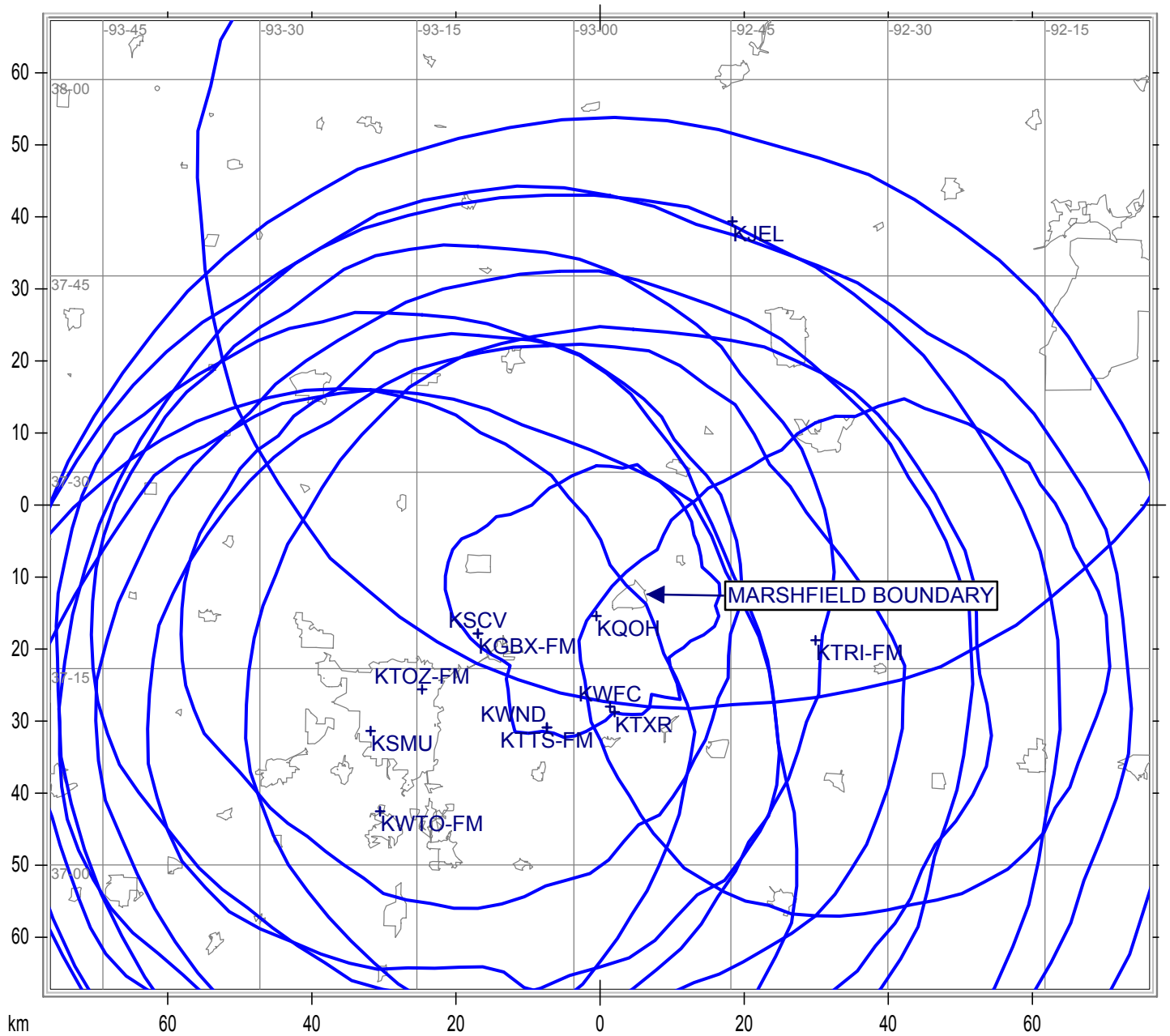
State Borders City Borders Lat/Lon Grid

Map Scale: 1:850000 1 cm = 8.50 km V/H Size: 134.46 x 152.55 km

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# FIGURE 4A - 60 DBU FM SERVICE TO MARSHFIELD, MO

SUBMITTED IN SUPPORT OF APPLICATION TO RELOCATE TO FAIR GROVE, MISSOURI



KQOH CHANNEL 220A 91.9 MEGAHERTZ FAIR GROVE, MISSOURI

State Borders City Borders Lat/Lon Grid

Map Scale: 1:850000 1 cm = 8.50 km V/H Size: 134.46 x 152.55 km

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**CHARLES A. HECHT & ASSOCIATES, INC.**  
BROADCAST ENGINEERING CONSULTANTS

**TABLE IA**  
**AM STATIONS PROVIDING 2 MV/M DAY SERVICE TO MARSHFIELD, MISSOURI**

| CALL<br>FORMAT | ST | CITY<br>ARN<br>LATITUDE                     | FREQ<br>OWNER<br>LONGITUDE                                    | PAT | PWR   | DESC                           |
|----------------|----|---|---|-----|-------|--------------------------------|
| KWTO           | MO | SPRINGFIELD<br>BL19890817AC<br>36-56-40.0 N | 560 LD<br>KWTO, INC.<br>93-13-17.0 W                          |     | 5.000 | DA2                            |
| KSGF           | MO | SPRINGFIELD<br>BL<br>37-15-51.0 N           | 1260 LD<br>JOURNAL BROADCAST CORPORATION<br>93-19-04.0 W      |     | 5.000 | DAN                            |
| KBNN           | MO | LEBANON<br>BL20070724AEI<br>37-41-11.0 N    | 750 LD<br>WAYNESVILLE/<br>92-41-35.0 W                        |     | 5.000 | NDD<br>LEBANON LICENSE CO, LLC |
| KMRF           | MO | MARSHFIELD<br>BL20030804AFM<br>37-19-09.0 N | 1510 LD<br>NEW LIFE EVANGELISTIC CENTER, INC.<br>92-57-43.0 W |     | 5.000 | DA2                            |

**CHARLES A. HECHT & ASSOCIATES, INC.**  
BROADCAST ENGINEERING CONSULTANTS

**TABLE 2A**  
**FM STATIONS PROVIDING 60 DBU SERVICE TO MARSHFIELD, MISSOURI**

| CALL<br>FORMAT<br>LATITUDE | ST | CITY<br>ARN<br>LONGITUDE                         | FREQ<br>OWNER   | CL | ERP<br>HAAT:m AMSL:m | STAT         |
|----------------------------|----|--|---|----|----------------------|--------------|
| KGBX-FM                    | MO | NIXA<br>BLH-19940408KA<br>37-17-41.0 N           | 105.9<br>CLEAR CHANNEL BROADCASTING LICENSES, INC.<br>93-09-10.0 W      | C2 | 38000<br>116.0       | LIC<br>571.0 |
| KTTS-FM                    | MO | SPRINGFIELD<br>BLH-19901218KB<br>37-10-30.0 N    | 94.7<br>JOURNAL BROADCAST CORPORATION<br>93-02-35.0 W                   | C  | 98000<br>280.5       | LIC<br>762.0 |
| KSCV                       | MO | SPRINGFIELD<br>BLED-20150219ACF<br>37-17-41.0 N  | 90.1<br>COMMUNITY BROADCASTING, INC.<br>93-09-10.0 W                    | C3 | 11000<br>97.9        | LIC<br>551.0 |
| KTOZ-FM                    | MO | PLEASANT HOPE<br>BLH-19980311KF<br>37-13-25.0 N  | 95.5<br>CLEAR CHANNEL BROADCASTING LICENSES, INC.<br>93-14-30.0 W       | C2 | 44000<br>110.9       | LIC<br>552.0 |
| KWTO-FM                    | MO | SPRINGFIELD<br>BLH-19830217AF<br>37-04-06.0 N    | 98.7<br>KWTO, INC.<br>93-18-31.0 W                                      | C1 | 96000<br>117.3       | LIC<br>543.0 |
| KWND                       | MO | SPRINGFIELD<br>BLED-20100104ABH<br>37-10-30.0 N  | 88.3<br>RADIO TRAINING NETWORK, INC.<br>93-02-35.0 W                    | C1 | 35000<br>148.6       | LIC<br>618.8 |
| KSMU                       | MO | SPRINGFIELD<br>BLED-19930610KC<br>37-10-14.0 N   | 91.1<br>BOARD OF GOVERNORS OF MISSOURI STATE UNIVERSITY<br>93-19-25.0 W | C2 | 40000<br>69.9        | LIC<br>503.0 |
| KXUS                       | MO | SPRINGFIELD<br>BLH-19930405KE<br>37-11-10.0 N    | 97.3<br>CLEAR CHANNEL BROADCASTING LICENSES, INC.<br>93-01-23.0 W       | C1 | 100000<br>123.2      | LIC<br>607.0 |
| KTXR                       | MO | SPRINGFIELD<br>BLH-20030124AEU<br>37-11-41.0 N   | 101.3<br>STEREO BROADCASTING, INC.<br>92-56-07.0 W                      | C  | 97800<br>399.5       | LIC<br>896.7 |
| KWFC                       | MO | SPRINGFIELD<br>BMLED-20150318ABE<br>37-12-06.0 N | 89.1<br>RADIO TRAINING NETWORK, INC.<br>92-56-33.0 W                    | C  | 98000<br>300.9       | LIC<br>782.0 |

TABLE 2A  
FM STATIONS PROVIDING 60 DBU SERVICE TO MARSHFIELD, MISSOURI  
-2-

| CALL<br>FORMAT<br>LATITUDE | ST | CITY<br>ARN<br>LONGITUDE | FREQ<br>OWNER                    | CL | ERP<br>HAAT:m AMSL:m | STAT |
|----------------------------|----|--------------------------|----------------------------------|----|----------------------|------|
| KKLH                       | MO | MARSHFIELD               | 104.7                            | C2 | 34000                | LIC  |
|                            |    | BMLH-20140305ACR         | MW SPRINGMO, INC.                |    |                      |      |
|                            |    | 37-12-21.0 N             | 92-54-20.0 W                     |    | 123.7 631.0          |      |
| KJEL                       | MO | LEBANON                  | 103.7                            | C0 | 100000               | LIC  |
|                            |    | BLH-19881115KC           | WAYNESVILLE/                     |    |                      | LIC  |
|                            |    | 37-49-10.0 N             | 92-44-51.0 W                     |    | 257.6 620.0          |      |
| KTRI-FM                    | MO | MANSFIELD                | 95.9                             | C3 | 8900                 | LIC  |
|                            |    | BLH-20070509ACG          | THIRTEEN FORTY PRODUCTIONS, INC. |    |                      |      |
|                            |    | 37-17-10.0 N             | 92-36-55.0 W                     |    | 165.1 583.0          |      |