

W224CJ

File Number BLFT-20130528ALW

Kinston, North Carolina

Application for a new FM Translator

On Channel 225

by

Conner Media Corporation

Exhibit 1

Grid Preclusion Showing

September 2013

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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Exhibit 1, Grid Preclusion Showing, for Conner Media Corporation, and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.



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30 September 2013

### Narrative

This Exhibit supports long form application to an amended Auction 83 construction permit application for a new FM translator on Channel 225 in Kinston, North Carolina, file number BLFT-20130528ALW. The tech box proposal (short form application) was filed in a filing window for Auction 83. The long form application, BNPFT-20130322AAM, was granted 15 May 2013 and has been constructed. As required in Special Operating Condition or Restriction No. 4, a new Preclusion Showing is being provided with this application. This Exhibit provides a preclusion showing required in a Public Notice<sup>1</sup> of a window to file long form applications for further processing.

This application proposes a minor modification of W224CJ. Specifically, a new site is proposed, a first adjacent frequency, a new primary station, and the elevation is increased. The minor modification creates no conflicts with any other Auction 83 tech box proposals, as will be shown in the Allocations Exhibit.

### Required Showings

This facility is located outside the Market Grid of the Greenville-New Bern-Jacksonville (North Carolina) Market, but within 39 kilometers of the Greenville-New Bern-Jacksonville Grid. The Greenville-New Bern-Jacksonville market is listed as a Spectrum

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<sup>1</sup> *Media Bureau Announces FM Translator Auction 83 Filing Window and Filing Procedures, August 30, 2013 Deadline Set for Form 349 Applications for Certain Non-Mutually Exclusive Tech Box Proposals, Report No. AUC-03-83-E (Long Form PN)*, released July 31, 2013.

Available Market using a 20 minute grid in Appendix B of the Fourth Report and Order.<sup>2</sup> The required showing is identified as Test C, in Attachment B to the Singleton Window PN.

This facility is in not with 39 kilometers of any other Appendix A Market. It is not within any out-of-grid Top 50 Spectrum Limited Market.

### Greenville-New Bern-Jacksonville Market Study

The Greenville-New Bern-Jacksonville market protected channel/point combinations were generated using the Commissions LPFM grid tool. A portion of the printout from the LPFM grid tool follows. The preliminary section confirms the parameters studied and provides a summary of the channels. There are no protected points on channel 225, proposed in this application. There are protected points on lower first adjacent channels 224. There are no protected points on lower second adjacent channel 223 or on upper first and second adjacent channels 226 and 227. No I.F. channel protection is required.

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<sup>2</sup> *In the Matter of Creation of a Low Power Radio Service, Amendment of Service and Eligibility Rules for FM Broadcast Translator Stations, Fourth Report and Order and Third Order on Reconsideration*, FCC 12-19, released March 19, 2012.

Greenville-New Bern-Jacksonville LPFM Grid Study Parameters and Overall Results

Greenville, NC  
 Latitude 35-36-40  
 Longitude 077-22-23  
 Grid Size 21 x 21  
 Micro FM 100 Watts at 30m HAAT  
 Co-Channel and 1st Adjacent Protected  
 2nd Adjacent Channel Protected  
 3rd Adjacent Channel Not Protected  
 I.F. Not Protected  
 TV Channel 6 Protected  
 CP Records Protected  
 APP Records Protected  
 FM Translators Protected  
 TV Channel 6 Translators/LP Protected  
 Auc83 FX App Records Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	110	280	0
201	0	221	0	241	6	261	79	281	0
202	51	222	0	242	116	262	0	282	0
203	0	223	0	243	57	263	0	283	0
204	0	224	26	244	0	264	0	284	0
205	0	225	0	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	141
207	0	227	0	247	0	267	0	287	21
208	0	228	0	248	21	268	0	288	130
209	0	229	0	249	0	269	0	289	76
210	0	230	3	250	0	270	0	290	204
211	0	231	0	251	0	271	0	291	35
212	0	232	0	252	0	272	0	292	0
213	0	233	0	253	0	273	26	293	0
214	0	234	0	254	0	274	7	294	0
215	0	235	0	255	0	275	3	295	60
216	0	236	0	256	0	276	0	296	233
217	0	237	0	257	0	277	0	297	245
218	0	238	0	258	0	278	0	298	0
219	0	239	4	259	0	279	0	299	0
								300	0

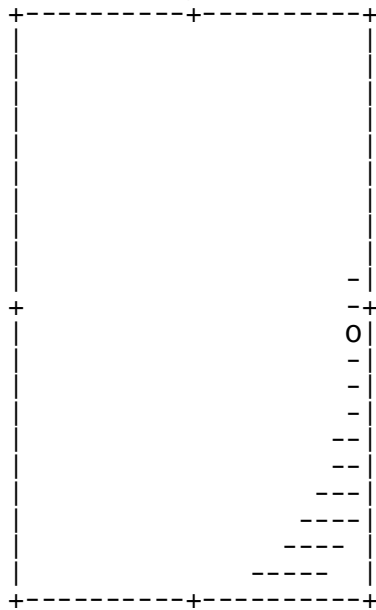
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 Total 1654

Total allotments, least preclusive spacing: 34  
 Total allotments, most preclusive spacing: 25

Note: Co-channel through second adjacent channel points shown highlighted above.

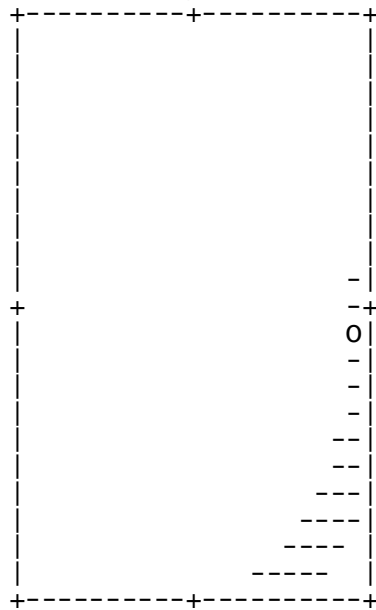
### Greenville-New Bern-Jacksonville LPFM Grid Study Specific Channel Points

Greenville, NC  
 Latitude 35-36-40  
 Longitude 077-22-23  
 Least preclusive siting  
 Availability of Channel 224 (X)



Point #010 at 35-35-40 077-12-23

Greenville, NC  
 Latitude 35-36-40  
 Longitude 077-22-23  
 Most preclusive siting  
 Availability of Channel 224 (X)



Point #010 at 35-35-40 077-12-23

### Translator Height Above Average Terrain and Distance to Contour

The proposed translator facilities Height Above Average Terrain for the 12 radials used for translators is 83.3 meters. The corresponding distance to the 60 dBu F(50,50) contour is 11.79 kilometers. This translator falls in the middle classification for separation requirements in 47 C.F.R. §73.807(d)(1). The required separation for co-channel operation is 32 kilometers. The required separation for first adjacent channels is 21 kilometers, and the required separation distance for second adjacent channels is 14 kilometers.

### Preclusion Study Description

Figure 1 shows the relationship of the proposed facilities to the Greenville-New Bern-Jacksonville market grid. This licensed facility is plotted as W224CJ. The licensed 60 dBu F(50,50) contour (blue line) is shown. The proposed modified facilities are identified as W224CJm. The proposed 60 dBu F(50,50) contour is shown as a solid green line.

A black line shows the 32 kilometer radius circle where the proposed translator facilities could preclude a co-channel LPFM opportunity. The 21 kilometer first adjacent circle is plotted as a red line. The closest first adjacent channel point, number 127, is plotted in red. The 21 kilometer radius first adjacent channel preclusion circle just reaches the corner of the market grid. The first adjacent preclusion circle does not reach the closest first adjacent channel point. The 14 kilometer radius second adjacent channel preclusion circle would not reach the market grid. The proposed facility does not preclude any identified points in the Greenville-New Bern-Jacksonville market.

### Source of Data

Transmitter location, effective radiated power, directional antenna pattern, and elevation data are extracted from the Commission's CDBS. All contours for existing and proposed facilities are calculated using height above average terrain calculated at one degree horizontal increments.

The contours were evaluated using terrain extracted from the V-Soft Communications NED 03 terrain database. The NED 03 database is derived from the USGS National Elevation Data 30 meter terrain database.



