Greensboro, North Carolina

Long Form Application for New FM Translator

BNPFT-20030317FTC

On Channel 228

by

Wake Forest University

Exhibit 16

Multiple Translators

March 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 16, Multiple Translators, for Wake Forest University, 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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24 March 2013

Narrative

This Exhibit supports a long form application in response to a filing window[1] for FM translator file number BNPFT-20030317FTC, CDBS application ID 634884, on Channel 228 in Greensboro, North Carolina.

Figure 1 shows the proposed 60 dBu F(50,50) coverage area. The 60 dBu F(50,50) contour for primary station WFDD, Winston-Salem, North Carolina, is shown on Figure 1. The proposed 60 dBu F(50,50) contour is within the WFDD protected 60 dBu F(50,50) contour.

Wake is also the licensee of W284BN, located on the same tower as the proposed facilities, and rebroadcasting WFDD. The W284BN 60 dBu F(50,50) contour is also shown on Figure 1.

Technical Need

This application proposes fill-in service to the WFDD HD2 signal. The existing W284BN facility rebroadcasts the WFDD main (and HD1) signal.

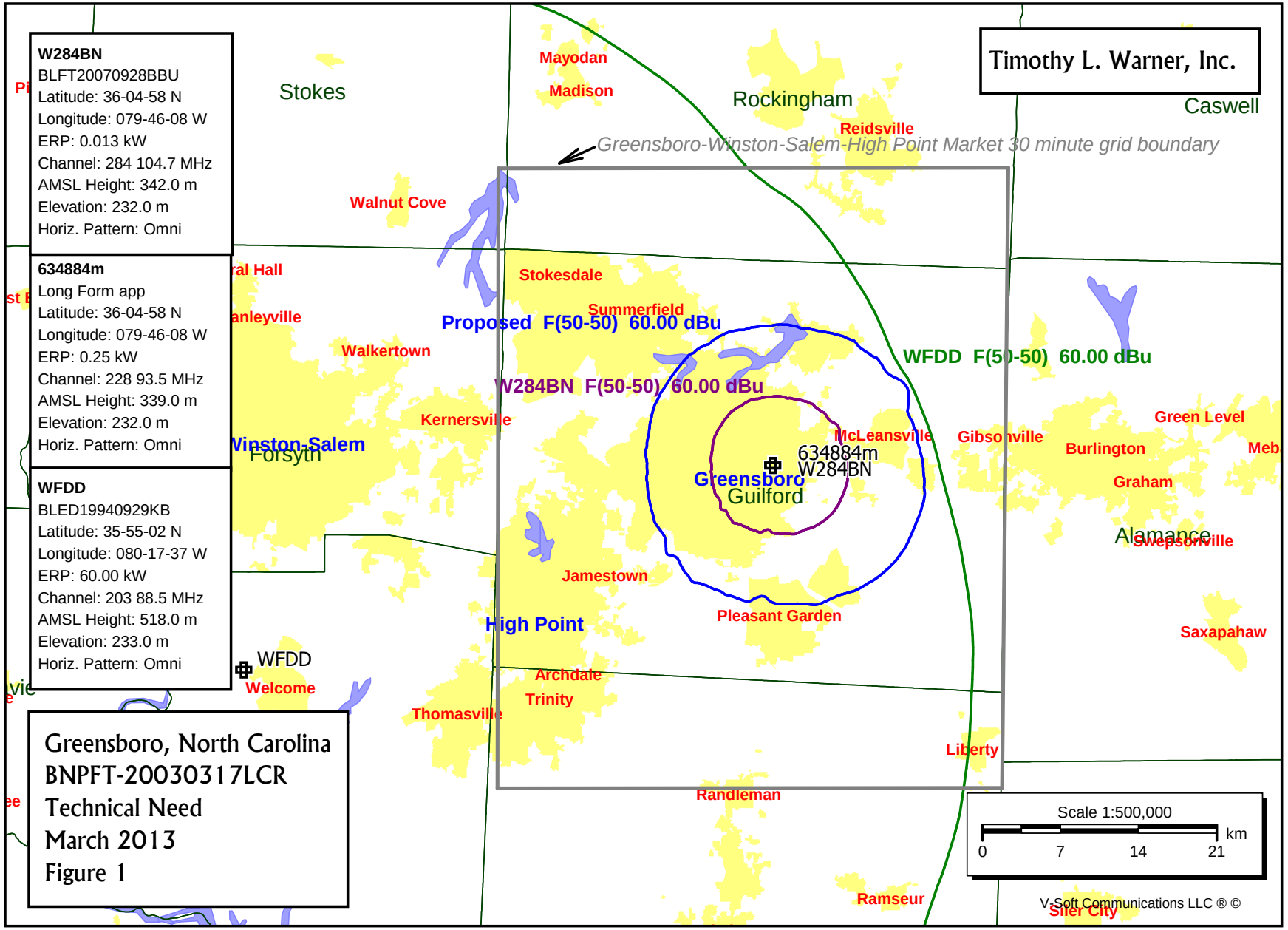
WFDD broadcasts in hybrid digital mode, with entirely different program streams on the main analog and HD1 channel, an HD2 channel, and an HD3 channel. The proposed rebroadcast of the HD2 signal on this translator will provide analog reception of the HD2 signal to the Greensboro area, so that listeners with analog only radios can hear the HD2 programming.

[1] *Public Notice, Media Bureau Announces FM Translator Auction 83 Filing Window and Filing Procedures*, DA13-283, released February 26, 2013. (Singleton Notice)

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 also 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.


W284BN
BLFT20070928BBU
Latitude: 36-04-58 N
Longitude: 079-46-08 W
ERP: 0.013 kW
Channel: 284 104.7 MHz
AMSL Height: 342.0 m
Elevation: 232.0 m
Horiz. Pattern: Omni
634884m
Long Form app
Latitude: 36-04-58 N
Longitude: 079-46-08 W
ERP: 0.25 kW
Channel: 228 93.5 MHz
AMSL Height: 339.0 m
Elevation: 232.0 m
Horiz. Pattern: Omni
WFDD
BLED19940929KB
Latitude: 35-55-02 N
Longitude: 080-17-37 W
ERP: 60.00 kW
Channel: 203 88.5 MHz
AMSL Height: 518.0 m
Elevation: 233.0 m
Horiz. Pattern: Omni
Timothy L. Warner, Inc.
Greensboro-Winston-Salem-High Point Market 30 minute grid boundary
Proposed F(50-50) 60.00 dBu
WFDD F(50-50) 60.00 dBu
W284BN F(50-50) 60.00 dBu
634884m
W284BN
WFDD
Stokes
Rockingham
Caswell
Mayodan
Madison
Reidsville
Walnut Cove
Stokesdale
Summerfield
Walkertown
Kernersville
Winston-Salem
Forsyth
Greensboro
Guilford
McLeansville
Gibsonville
Burlington
Green Level
Graham
Alamance
Swepsonville
Jamestown
High Point
Pleasant Garden
Saxapahaw
Archdale
Trinity
Thomasville
Welcome
Liberty
Randleman
Ramseur
Siler City
Scale 1:500,000
km
0
7
14
21
V-Soft Communications LLC ® ©
Greensboro, North Carolina
BNPFT-20030317LCR
Technical Need
March 2013
Figure 1