

ENGINEERING REPORT

Translator Application
Channel 229D, 93.7 MHz
La Follette, TN

March, 2003

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Discussion

This firm has been retained to prepare the required engineering report in support of a new Translator Application for La Follette, TN, on Channel 229. The Translator will rebroadcast WYFC, Clinton, TN, Channel 237. This proposal meets the requirements of the Rules.

It has been determined that the translator may be used in the area without interference to any existing FM broadcast station. A copy of the FCC Form 349 Tech Box Worksheet has been included in **Exhibit 1.0**. This represents the actual technical information as filed with the FCC in the recent Translator Window. A copy of the allocation has been included for this translator has been included as **Exhibit 1.1**. A copy of the vertical placement of the antenna on the proposed tower has been included as **Exhibit 2.0**. The proposed Translator Coverage area has been depicted in **Exhibit 3.0**. **Exhibit 3.1** of this report is a map showing the relationship of the primary station protected contour to the protected contour of the translator station.

The proposed facility will meet the requirements of the Rules for operation without a licensed operator in attendance. The transmitter site should be reached promptly at all hours and in all seasons. The transmitter should be equipped with proper control and interface circuits which will place the translator in a non-radiating condition in the event the proper incoming signal is absent. The transmitter and controls should be placed in a locked area to prevent unauthorized tampering with the equipment. A person or persons should be assigned to observe the signals of the station each day, and to take corrective action if required. The equipment proposed for this operation is listed in the type-approved list of the Commission.

CERTIFICATION

I hereby certify, subject to penalties for perjury, that the contents of this Engineering Statement are true and accurate to the best of my knowledge and belief.

March 25, 2003

Munn-Reese, Inc.

By Wayne S. Reese
Wayne S. Reese, President

By Donald J. Baad
Donald J. Baad, Project Engineer

By Justin W. Asher
Justin W. Asher, Project Engineer

PO Box 220
Coldwater, MI 49036
517-278-7339

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. Channel: _____

2. Primary Station:	Call Sign	City	State	Channel
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3. Delivery Method:

☐ Off-air ☐ Microwave ☐ Satellite ☐ Via _____ ☐ Other

4. Antenna Location Coordinates: (NAD 27)

_____° _____'	_____"	<input type="checkbox"/> N	<input type="checkbox"/> S	Latitude
_____° _____'	_____"	<input type="checkbox"/> E	<input type="checkbox"/> W	Longitude

5. Antenna Structure Registration Number: _____

☐ Not applicable ☐ FAA Notification Filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: _____ meters

7. Overall Tower Height Above Ground Level: _____ meters

8. Height of Radiation Center Above Ground Level: _____ meters (H) _____ meters (V)

9. Effective Radiated Power: _____ kW (H) _____ kW (V)

10. Transmitting Antenna:

☐ Nondirectional ☐ Directional "Off-the-shelf" ☐ Directional composite

Manufacturer	Model
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Rotation: _____° ☐ No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

Exhibit 1.1 - Translator Allocation

REFERENCE	CH# 229D - 93.7 MHz, Pwr= 0.019 kW, HAAT=103.9 M, COR= 445 M	DISPLAY DATES
36 23 11 N	Average Protected F(50-50)= 3.69 km	DATA 03-22-03
84 05 36 W	Ave. F(50-10) 40 dBu= 11.9 54 dBu= 5.3 80 dBu= 1.6 100 dBu= .3	SEARCH 03-25-03

CH CITY	CALL STATE	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
229D BBN-XL La Follette	AP C TN	0.0 180.0	0.00	36 23 11 84 05 36	0.019 11.9	445	3.7	-15.55<	-15.55<	
Bible Broadcasting Network										
229D 971021 La Follette	APP CN TN	38.8 218.8	0.04	36 23 12 84 05 35	0.019 14	451	3.7	-15.51<	-15.51<	
Bible Broadcasting Network										
Translator for WYFC, Clinton, TN.										
232C3 *ALLO Oak Ridge	VAC TN	214.9 34.9	34.89	36 07 43 84 18 56	25.000 -133	603	22.7	25.65	11.91	
> Reference HAAT at 214.9°= 103.6 M, Pwr= 0.019 kW, Pro. Dist. = 6.95 km, Int Dist. = 0.31 km										
232C3 *WNFZ.A Oak Ridge	APP ZCX TN	184.0 4.0	55.65	35 53 10 84 08 11	8.800 158	451	38.1	46.83	17.23	
> Reference HAAT at 184.0°= 54.7 M, Pwr= 0.019 kW, Pro. Dist. = 5.08 km, Int Dist. = 0.31 km										
226A *WMYU Karns	LIC CN TN	172.4 352.4	47.43	35 57 46 84 01 23	2.400 123	450	25.3	39.28	21.83	
> Reference HAAT at 172.4°= 74.4 M, Pwr= 0.019 kW, Pro. Dist. = 5.87 km, Int Dist. = 0.31 km										
229C3 *WBXE Baxter	LIC NCN TN	259.6 79.6	120.50	36 11 03 85 24 40	6.100 138	565	32.8	23.99	75.81	
> Reference HAAT at 259.6°= -44.8 M, Pwr= 0.019 kW, Pro. Dist. = 3.69 km, Int Dist. = 11.86 km										
230C2 *WLLK Burnside	LIC CN KY	339.2 159.2	91.26	37 09 15 84 27 35	50.000 182	463	55.8	5.04	30.23	
> Reference HAAT at 339.2°= -40.6 M, Pwr= 0.019 kW, Pro. Dist. = 3.69 km, Int Dist. = 5.25 km										
232A *WNFZ Oak Ridge	LIC C TN	184.0 4.0	55.65	35 53 10 84 08 11	2.550 141	434	27.1	48.15	28.26	
> Reference HAAT at 184.0°= 54.7 M, Pwr= 0.019 kW, Pro. Dist. = 5.08 km, Int Dist. = 0.31 km										
228A *WKZXFM Lenoir City	LIC NC TN	185.9 5.9	75.39	35 42 38 84 10 46	2.000 200	458	30.1	24.80	38.01	
> Reference HAAT at 185.9°= 57.9 M, Pwr= 0.019 kW, Pro. Dist. = 5.23 km, Int Dist. = 7.29 km										
229C *WFBCFM Greenville	CP CX SC	136.1 316.1	195.13	35 06 43 82 36 24	100.000 305	1150	72.8	16.24	101.24	
> Reference HAAT at 136.1°= 87.1 M, Pwr= 0.019 kW, Pro. Dist. = 6.36 km, Int Dist. = 21.12 km										
229C *WFBCFM Greenville	APP CX SC	136.1 316.1	195.13	35 06 43 82 36 24	100.000 305	1150	72.8	16.24	101.24	
> Reference HAAT at 136.1°= 87.1 M, Pwr= 0.019 kW, Pro. Dist. = 6.36 km, Int Dist. = 21.12 km										
229C *WFBCFM Greenville	LIC EN SC	136.1 316.1	195.32	35 06 40 82 36 17	100.000 305	1152	72.8	16.46	101.45	
> Reference HAAT at 136.1°= 87.1 M, Pwr= 0.019 kW, Pro. Dist. = 6.36 km, Int Dist. = 21.12 km										
231A WMXK Morristown	LIC C TN	104.3 284.3	70.54	36 13 40 83 19 58	0.920 235	617	27.2	64.94	42.99	
Horne Radio, Llc										
226A WMKZ Monticello	LIC C KY	305.1 125.1	82.02	36 48 29 84 50 46	1.450 206	522	28.3	76.09	53.38	
Monticello-wayne County Me										
228C2 WAXM Big Stone Gap	LIC CN VA	60.9 240.9	122.14	36 54 50 82 53 40	2.450 574	1310	52.3	40.28	64.60	
Valley Broadcasting, Inc.										
230C3 WAYA Spring City	LIC NCN TN	210.7 30.7	110.40	35 31 50 84 43 03	5.500 175	440	36.0	53.15	69.12	
J. L. Brewer Broadcasting										

*** = ERP and HAAT on direct line to and from reference station. "<" = Contour Overlap

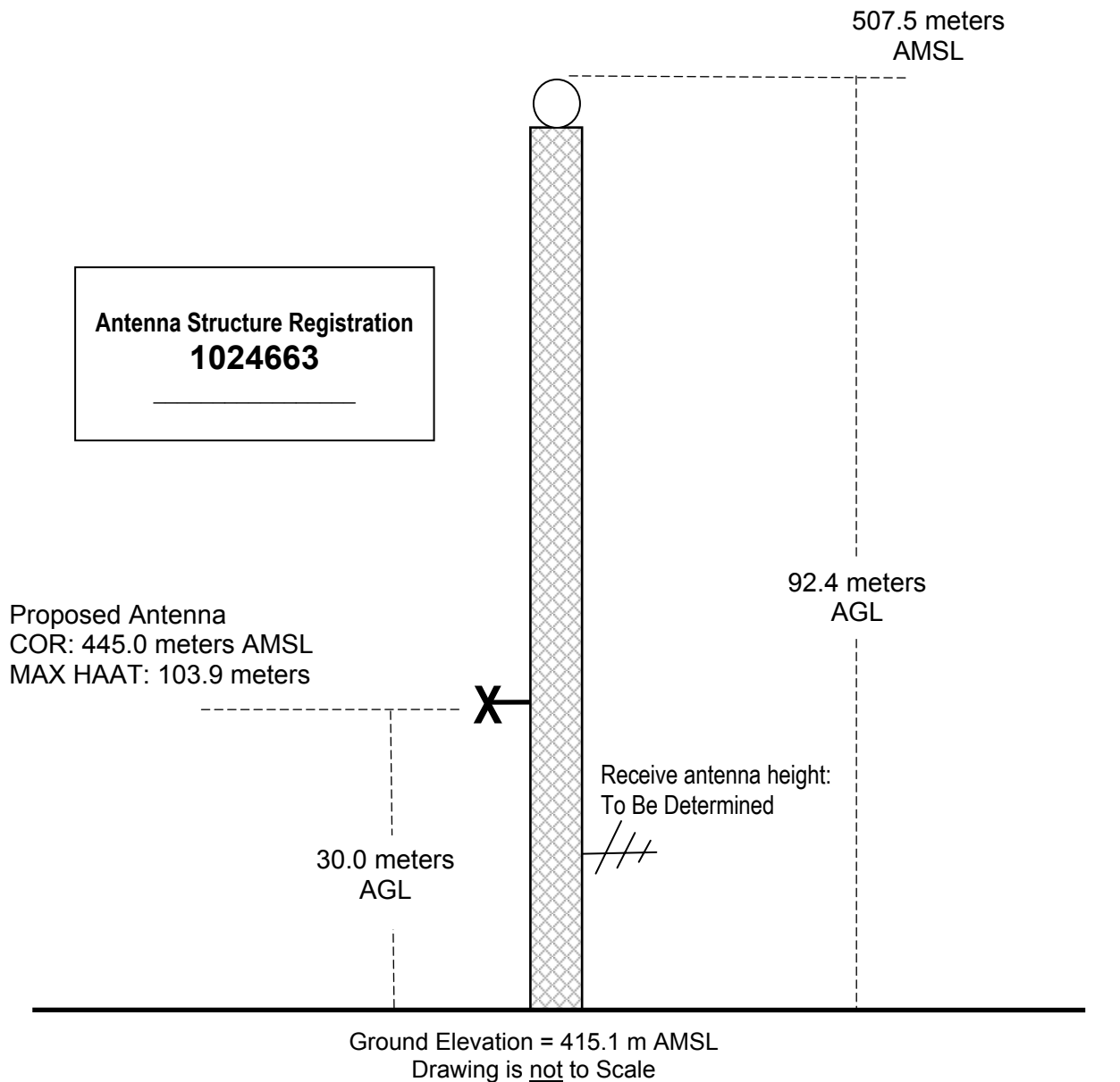
MUNN-REESE, INC.
Broadcast Engineering Consultants
COLDWATER, MI 49036-0220
517-278-7339

EXHIBIT 2.0

VERTICAL PLAN OF ANTENNA SYSTEM

This station will rebroadcast WYFC, Clinton, TN.

Site Location
NL: 36° 23' 11"
WL: 84° 05' 36"



BBN-XL.A

La Follette, TN

Latitude: 36-23-11 N

Longitude: 084-05-36 W

ERP: 0.019 kW

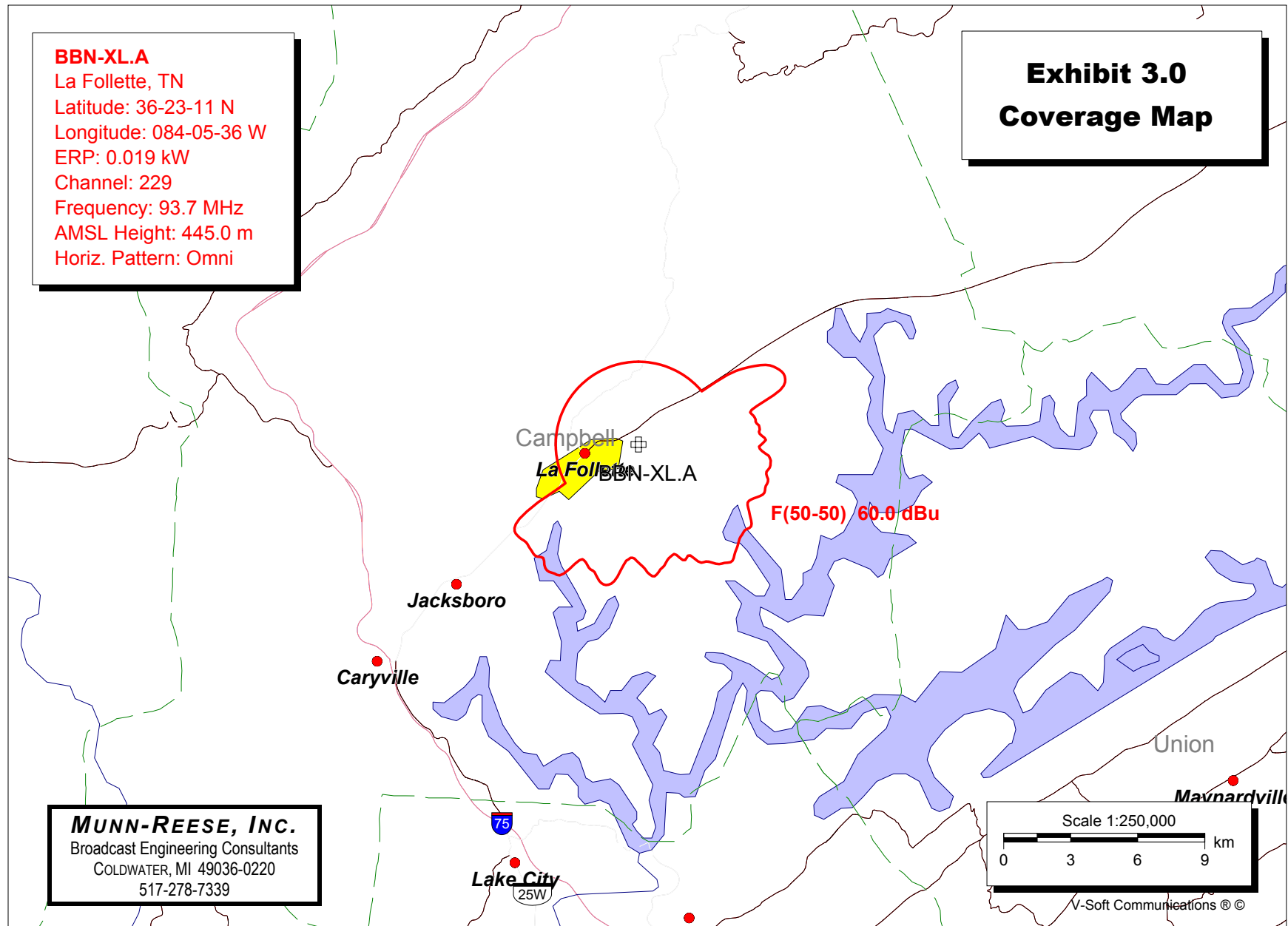
Channel: 229

Frequency: 93.7 MHz

AMSL Height: 445.0 m

Horiz. Pattern: Omni

**Exhibit 3.0
Coverage Map**



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517-278-7339

BBN-XL.A

La Follette, TN
Latitude: 36-23-11 N
Longitude: 084-05-36 W
ERP: 0.019 kW
Channel: 229
Frequency: 93.7 MHz
AMSL Height: 445.0 m
Horiz. Pattern: Omni

WYFC

Clinton, TN
Latitude: 36-04-21 N
Longitude: 084-01-18 W
ERP: 1.45 kW
Channel: 237
Frequency: 95.3 MHz
AMSL Height: 527.0 m
Horiz. Pattern: Omni

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Exhibit 3.1 Primary Station Coverage Map

