

Appendix B  
Citicasters Licenses, LP  
Radio station: WMMS(FM)  
Facility ID: 73273  
Cleveland, OH.

This Exhibit is prepared on behalf of Citicasters Licenses, LP, licensee of WMMS(FM), Cleveland OH and is prepared in support of Form 302 filed to cover Construction Permit BXPB-20070508ABG. This Exhibit is in response to Condition 1 of the aforementioned Construction Permit.

Common Ground Broadcasting Inc. is the licensee of the station WHK, Cleveland OH, Facility ID 72299, the subject of Condition 1 of the WMMS(FM) construction permit. WHK is a Class B, AM station operating at a power of 5 kilowatts, non-directional daytime and operating at a power of 5 kilowatts utilizing a three tower directional array for nighttime operation. WHK operates on a frequency of 1420 kilohertz.

Tower number 2 an insulated tower in the WHK array and supports two FM antennas and multiple auxiliary broadcast antennas and is used as an alternate non-directional radiator in the WHK array. An existing FM isocoupler was used to bridge the base of this tower. No other changes were made on this tower.

Below are tabulated are the results of field measurements made on WHK both prior to Auxiliary FM antenna installation on the WHK tower and after the antenna installation was complete. A minimum of 8 points were measured along the 5 monitored radials as prescribed in Condition 1 of the WMMS(FM) Construction Permit. Due to the time lapse between the prior construction measurements and the post construction measurements, all post construction radial measurements were analyzed using data from the last full proof of May, 1976 and the partial proof submitted in June, 2005. As can be seen in the tabulation below, all radials are within the radial limits established for each radial. Therefore, the addition of the Auxiliary FM antenna, that is subject of this form 302, for WMMS has not caused harm to the WHK nighttime directional pattern.

All measurements were made by Dan Mettler, Dave Szucs, Mike Camarato and Jim Czar, all of who are experienced in making such measurements and whose work has been accepted by the FCC.

Respectfully submitted,



Daniel J. Mettler  
Technical Director  
Citicasters Licenses, Inc.

#### Post Construction Measurements

The operating parameters under which the post-construction measurements on WHK were made are as follows:

Tower number 2 base impedance:  $46 -j120.7$

<u>WHK Operating Parameters</u>		
	Licensed Parameter	Post-Construction
CP current	10.39 amps	10.39 amps
CP impedance	50 j 0	50 j 0
Twr1 Phase	0.0	0.0
Tower 1 Ratio	1.0	1.0
Tower 2 Phase	99.1	99.6
Tower 2 Ratio	31.6	31.9
Tower 3 Phase	168.0	166.7
Tower 3 Ratio	19.2	19.5

## Radial Field Intensity Analysis

60° T

### Post Construction Proof

FIELD INTENSITY MEASUREMENTS								
STATION:	WHK		AZIM:	60				
FIM:	41		KHZ:	1420				
SERIAL:	2159							
POINT #	DIST	DATE	TIME	mv/m	DATE	TIME	mv/m	POINT DESCRIPTION
	km	NDA	NDA	NDA	DA	DA	DA	
12 MP	2.93	2/9/75	914	230.0	4/30/10	9:31	72.00	41-22-20.4/81-38-11.3
13	3.06	2/9/75	917	260.0	4/30/10	9:35	62.50	41-22-23.7/81-38-06
14	3.46	2/9/75	922	265.0	4/30/10	9:40	54.00	41-22-30/81-38-01
15	5.10	2/9/75	933	130.0	4/30/10	9:53	18.90	41-22-53.4/81-36-53.3
16	5.47	2/9/75	945	125.0	4/30/10	9:56	21.50	41-23-2.9/81-36-40.4
17	5.66	2/9/75	950	89.0	4/30/10	10:02	17.50	41-23-3.1/81-36-30.9
18	6.02	2/9/75	1000	115.0	4/30/10	10:07	13.00	41-23-7.7/81-36.16.7
18A	8.00	2/9/75	1007	71.0	4/30/10	10:14	10.00	41-23-45.8/81-35-6.9
20	9.82	2/9/75	1045	43.0	4/30/10	10:20	9.10	41-24-11.2/81-33-56.6
21	11.54	2/9/75	1100	35.5	4/30/10	10:28	6.40	41-24-38/81-32-49.9
22	13.52	2/9/75	1122	31.5	4/30/10	10:39	7.40	41-25-6.8/81-31-41.2

Arithmetic average DA/Ref: 0.1956

Log-Ratio average DA/Ref: 0.1886

1976 Proof Reference Field: 901.0 mV/m

Augmented/Standard Pattern Limit: 485.02 mV/m

Arithmetic average times Ref Field: 176.26 mV/m

**120° T**

**Post Construction Proof**

FIELD INTENSITY MEASUREMENTS								
STATION:	WHK		AZIM:	120		Post Construction		
FIM:	41		KHZ:	1420				
SERIAL:	2159							
POINT #	DIST	DATE	TIME	mv/m	DATE	TIME	mv/m	POINT DESCRIPTION
	km	NDA	NDA	NDA	DA	DA	DA	
8 MP	2.57	2/3/75	N/A	285	4/30/10	1240	16.40	41-20-53.4/81-38-22.5
9	2.74	2/3/75	N/A	255	4/30/10	1237	13.00	41-20-48.5/81-38-18.9
10A	3.11	2/3/75	N/A	195	4/30/10	1232	10.50	41-20-42.1/81-38-1.7
10B	3.43	2/3/75	N/A	210	4/30/10	1227	7.70	41-20-33.1/81-37-48
12	4.14	2/3/75	N/A	150	4/30/10	1222	1.60	41-20-24.8/8137-27.8
13	6.12	2/3/75	N/A	74	4/30/10	1215	2.40	41-19-53.3/81-36-15.7
14	6.76	2/3/75	N/A	58	4/30/10	1211	1.60	41-19-39.8/81-35-45.9
15	8.56	2/3/75	N/A	39	4/30/10	1205	1.25	41-19-11.3/81-34-41.2
16	10.38	2/3/75	N/A	28	4/30/10	1200	1.42	41-18-45.9/81-33-32
17	12.31	2/3/75	N/A	24.5	4/30/10	1155	0.52	41-18-8.5/81-32-22.4

Arithmetic average DA/Ref: 0.0374

Log-Ratio average DA/Ref: 0.0337

1976 Proof Reference Field: 901.20 mV/m

Augmented/Standard Pattern Limit: 167.21 mV/m

Arithmetic average times Ref Field: 33.68 mV/m

**231.5° T**

**Post Construction Proof**

FIELD INTENSITY MEASUREMENTS								
STATION:	WHK		AZIM:	231.5		Post Construction		
FIM:	41		KHZ:	1420				
SERIAL:	2159							
POINT #	DIST	DATE	TIME	mv/m	DATE	TIME	mv/m	POINT DESCRIPTION
	km	NDA	NDA	NDA	DA	DA	DA	
13 MP	2.93	5/19/05	943	170	4/30/10	11:52	11.50	41-19-58.8/81-42-54.3
14	6.18	5/19/05	955	73	4/30/10	11:56	2.40	41-19-28/81-43-28.7
14B	7.40	5/19/05	1000	80	4/30/10	12:02	2.30	41-19-1.4/81-44-3.7
16	9.36	5/19/05	1025	42	4/30/10	12:28	2.70	41-18-23.4/81-45-16
17	10.46	5/19/05	1030	43.5	4/30/10	12:35	2.75	41-18-1.5/81-45-52.6
18	12.18	5/19/05	1040	28.5	4/30/10	12:44	1.30	41-17-29.8/81-46-46.2
19	12.71	5/19/05	1045	33	4/30/10	12:52	0.82	41-17-16.4/81-47-7.3
20	14.83	5/19/05	1104	35	4/30/10	12:56	0.68	41-16-36.9/81-48-18.7

Arithmetic average DA/Ref: 0.0433

Log-Ratio average DA/Ref: 0.0393

1976 Proof Reference Field: 901.20 mV/m

Augmented/Standard Pattern Limit: 208.57 mV/m

Arithmetic average times Ref Field: 39.05 mV/m

**270° T**

**Post Construction Proof**

FIELD INTENSITY MEASUREMENTS								
STATION:	WHK		AZIM:	270		Post Construction		
FIM:	41		KHZ:	1420				
SERIAL:	1904							
POINT #	DIST	DATE	TIME	mv/m	DATE	TIME	mv/m	POINT DESCRIPTION
	km	NDA	NDA	NDA	DA	DA	DA	
14 MP	2.93	2/6/75	832	138	4/30/10	11:45	33.00	41-21-36.6/81-43-12.5
14A	5.68	2/6/75	1643	125	4/30/10	11:40	23.00	41-21-33.2/81-44-10.2
16	6.55	2/6/75	1645	92	4/30/10	11:34	17.00	41-21-31.5/81-44-47.4
17	7.85	2/6/75	1625	56	4/30/10	11:26	13.50	41-21-30.9/81-45-35.8
18	8.53	2/6/75	1620	48.5	4/30/10	11:20	11.00	41-21-31.2/81-46-7.5
18A	8.90	2/6/75	1615	45	4/30/10	11:17	10.80	41-21-31.6/81-46-36
20B	10.10	2/6/75	1607	41	4/30/10	11:10	10.00	41-21-31.4/81-47-6.6
20A	12.12	2/6/75	1554	34.5	4/30/10	11:03	4.80	41-21-30.9/81-48-49
22	15.45	2/6/75	1529	23	4/30/10	10:54	1.58	41-21-29.9/81-51-.4
23	18.99	2/6/75	1500	20	4/30/10	10:45	2.20	41-21-29.8/81-53-33.1

Arithmetic average DA/Ref: 0.1878

Log-Ratio average DA/Ref: 0.1753

1976 Proof Reference Field: 901.20 mV/m

Augmented/Standard Pattern Limit: 434.43 mV/m

Arithmetic average times Ref Field: 169.20 mV/m

**295° T**

**Post Construction Proof**

FIELD INTENSITY MEASUREMENTS								
STATION:	WHK		AZIM:	295				
FIM:	41		KHZ:	1420				
SERIAL:	2159							
POINT #	DIST	DATE	TIME	mv/m	DATE	TIME	mv/m	POINT DESCRIPTION
	km	NDA	NDA	NDA	DA	DA	DA	
9 MP	3.44	2/23/75	1625	190	4/30/10	9:33	60.00	41-22-19.3/81-42-16.2
10	3.99	2/23/75	1620	185	4/30/10	9:36	57.00	41-22-26.7/81-42-34.2
11	6.07	2/23/75	1600	64	4/30/10	9:44	17.50	41-22-58.1/81-43-54.3
12	7.00	2/23/75	1550	49	4/30/10	9:48	16.10	41-23-7.8/81-44-24.2
13	8.48	2/23/75	1535	46	4/30/10	9:52	14.60	41-23-25.2/81-45-31.7
14	10.81	2/23/75	1524	17	4/30/10	9:57	5.30	41-24-.8/81-47.00
16	14.16	2/23/75	1503	23.5	4/30/10	10:14	5.40	41-24-45.8/81-49-10
18	17.70	2/23/75	1444	15	4/30/10	10:26	2.80	41-25-36.7/81-51-27.9

Arithmetic average DA/Ref: 0.2839

Log-Ratio average DA/Ref: 0.2794

1976 Proof Reference Field: 901.20 mV/m

Augmented/Standard Pattern Limit: 450.62 mV/m

Arithmetic average times Ref Field: 255.89 mV/m