FCC Form 352
May 1988

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

AM BROADCAST STATION LICENSE

File No. : BL-890814AD

Call Sign : WADN

LICENSEE:

Walden Communications Company, Inc.

1. Community of License .....: Concord, Massachusetts

2. Transmitter location .....: 0.4 mile North of Powder Mill Rd. 1.5 miles NorthEast of Maynard, MA., Middlesex County Acton Massachusetts

North latitude .....: ° ' "

West longitude .....: ° ' "

3. Transmitter(s): Type Accepted. (See Sections 73.1660, 73.1665 and 73.1670 of the Commission's rules)

4. Main Studio location: (See Section 73.1125)

Damonmill Square, 9 Pond Lane
Middlesex County
Concord, Massachusetts

5. Remote control location:

(Same)

6. Antenna and ground system: Attached

7. Obstruction marking and lighting specifications - FCC Form 715, paragraphs: None Required

8. Frequency .....: 1120 kHz

9. Nominal power (kW) .....: 5.0 Day 1.0 Night

Antenna input power (kW):

5.4 Day ☐ Non-directional antenna: ☐ Directional antenna : current 10.39 amperes; resistance 50 ohms.

1.08 Night ☐ Non-directional antenna: ☐ Directional antenna : current 4.65 amperes; resistance 50 ohms.

10. Hours of operation: Specified in BP-810410BD and BMP-881227AA

11. Conditions .....: Attached

Subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts, Treaties, and Commission rules made thereunder, and further subject to conditions set forth in this license, [1] the LICENSEE is hereby authorized to use and operate the radio transmitting apparatus herein described for the purpose of broadcasting for the term ending 3 A.M. Local Time April 1, 1991.

The Commission reserves the right during said license period of terminating this license or making effective any change, or modification of this license which may be necessary to comply with any decision of the Commission rendered as a result of any hearing held under the rules of the Commission prior to the commencement of this license period or any decision rendered as a result of any such hearing which has been designated but not held, prior to the commencement of this license period.

The license is issued on the licensee's representation that the statements contained in the licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve the public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. This license is subject to the right of use or control by the Government of the United States conferred by Section 606 of the Communications Act of 1934, as amended.

[1] This license consists of this page and pages 2, 3 and 4.

Dated: JAN 16 1990

JS/ed

FEDERAL COMMUNICATIONS COMMISSION

JAN 19 1990

FCC Form 353-A
June 1980

File NO. BL- 890814AD **Call Sign:** WADN **Date:**
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1. **DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM**

No. andType of Elements: Four (4) vertical, guyed, series-excited steel radiators of uniform cross section. Theo. RMS: = 317.5 mV/m @ 1 km (night); 652.7 mV/m @ 1 km (day) Standard RMS = 333.54 mV/m @ 1 km (night); 685.74 mV/m @ 1 km (day) Q factor = 10.0 mV/m @ 1 km (night); 22.361 mV/m @ 1 km (day). An STL Antenna is sidemounted on E (#3) tower.

Height above Insulators: 196 feet (80.36°)

Overall Height: 199 feet

Spacing and Orientation: Towers #1(W), #2(C) and #3(E) are equally spaced 90° apart on a line bearing 90° True. With Tower #2(C) as reference, Towers #4(N) is spaced 179° on a line bearing 36° True.

Non-Directional Antenna: Not Authorized

Ground System consists of 120 buried copper wire radials 220 feet, except where foreshortened and bonded between towers.

2. **THEORETICAL SPECIFICATIONS**

Tower	#1(W)	#2(C)	#3(E)	#4(N)
Phasing: Night	0°	-108.7°	141.6°	- -
Day	-176.2°	0°	-115.1°	-5.8°
Field Ratio:				
Night	1.0	1.62	0.7	- -
Day	0.4	1.0	0.47	0.73

3. **OPERATING SPECIFICATIONS**

Phase Indication*:				
Night	4.8°	0°	-37.8°	- -
Day	29.0	-57.7°	-105.5°	0°
Antenna Base Current Ratio:				
Night	0.570	1.00	0.436	- -
Day	0.542	1.452	0.577	1.00
Antenna Monitor Sample Current Ratio:				
Night	0.523	1.00	0.416	- -
Day	0.600	1.550	0.648	1.00

*** As indicated by** Gorman-Redlick CMR (3-242) Antenna Monitor.

ANTENNA SAMPLING SYSTEM APPROVED UNDER SECTION 73.68(b) OF THE RULES.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINT

Direction of 22 degree True North. From the transmitter site proceed to the intersection of Knox Trail and Highway 62. Turn right and proceed west a distance of 0.21 kilometer to the firs intersection with a road to th northwest. Turn right and proceed northwest for a distance of 1.04 kilometer to the intersection with Parker Street. Turn right onto Parker Street and proceed Northeast for a distance of 1.25 kilometers to the intersection with School Street. Turn right onto School Street and proceed east for a distance of 0.31 kilometer to the intersection with School Street North. Turn left and proceed North on School Street for a distance of 1.77 kilometers to the intersection with Highway 119. Turn left onto Highway 119 and proceed west for a distance of 0.10 kilometer to the intersection with Pope Street. Turn right onto Pope Street and proceed 0.31 kilometer to the intersection with Braybrook Road. Turn left onto Braybrook Road and proceed West for a distance of 0.10 kilometer to the point. The point is located opposite utility pole #3 and is marked with a painted orange dot. Radial point number 10. Distance from the transmitter 3.80. Daytime field strength 3.20 mV/m. The field intensity measured at this point should not exceed 3.6 mV/m Daytime.

Direction of 234 degree True North. From the transmitter site proceed to the intersection of Knox Trail and Highway 62. Turn right and proceed West a distance of 0.21 kilometer to the first intersection with a road to the northwest. Turn right and proceed northwest for a distance of 1.04 kilometer to the intersection with Parker Street. Turn left and proceed southwest (now Concord Street) for a distance of 2.08 kilometers to the intersection with Summer Street. Turn right onto Summer Street and proceed West for a distance of 2.29 kilometers to the intersection with Highway 117. Turn left onto Highway 117 and proceed east for a distance of 0.10 kilometers to the intersection with White Pond Roads. Turn right onto White Pond Road and proceed southeast for a distance of 1.35 kilometers to th point. The point is located on the bridge at the southeast corner of the bridge and is marked with a painted orange dot on the pavement. Radial Point Number 15. Distance from the transmitter 4.85 kilometers. Daytime field strength 13.5. The field intensity measured at this point should not exceed 16.1 mV/m Daytime.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINT

Direction of 354 degree True North. From the transmitter site proceed to the intersection of Knox Trail and Highway 62. Turn right and proceed west a distance of 0.21 kilometer to the first intersection with a road to the northwest. Turn right and proceed northwest for a distance of 1.04 kilometer to the intersection with Parker Street. Turn right onto Parker Street and proceed northeast for a distance of 1.25 kilometers to the intersection with School Street. Turn right and proceed east 0.16 kilometers to the intersection with Hosmer Street. Turn left and proceed north on Hosmer Street for a distance of 1.35 kilometers to the intersection with Whitter Drive. Turn left onto Whitter Drive and proceed west 0.42 kilometers to the point. The point is located at the end of the stone wall opposite utility pole #3. Radial Point Number 13, Distance from the transmitter 3.20 kilometers, Daytime field strength 3.35 mV/m. The field intensity measured at this point should not exceed 6.1 mV/m Daytime.

Direction of 247.6 degree true North. From the transmitter site proceed to the intersection of Knox Trial and Highway 62. Turn right and proceed west a distance of 0.21 kilometer to the first intersection with a road to the northwest. Turn right and proceed northwest for a distance of 1.04 kilometer to the intersection with Parker Street. Turn left and proceed southwest (now Concord Street) for a distance of 2.08 kilometers to the intersection with Summer Street. Turn right onto Summer Street and proceed west for a distance of 2.29 kilometers to the intersection with Highway 117. Turn left onto Highway 117 and proceed east for a distance of 0.10 kilometers to the intersection with White Pond Road. The point is located at the end of the curb on the southeast corner of the intersection and is marked with a painted orange dot. The field intensity measured at this point should not exceed 0.42 mV/m Nighttime.

Direction of 292.5 degree True North. From the transmitter site proceed to the intersection of Knox Trail and Highway 62. Turn right and proceed west a distance of 0.21 kilometer to the first intersection with a road to the northwest. turn right and proceed Northwest for a distance of 3.02 kilometers tot the intersection with Highway 27. Turn right and proceed north on Highway 27 to the intersection with Central Street. Turn left and proceed 0.42 kilometer to the intersection with Martin Street. Turn left and proceed south on Martin Street for a distance of 0.42 kilometer to the point., The point is located at the wooden guard rail on the west shoulder of the road and is marked with a painted orange dot on the pavement. Radial point number 13. Distance from the transmitter 3.10 kilometers, Nighttime field strength 0.73 mV/m. The field intensity measured at this point should not exceed 0.83 mV/m Nighttime.