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DEC 11 1992

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In re	)	MM Docket No. 92-116
	)	
WSKG PUBLIC TELECOMMUNICATIONS COUNCIL	)	File No. BPED-910501MB
	)	
For a Construction Permit for a New FM Station Binghamton, New York	)	
	)	
ARROWHEAD CHRISTIAN CENTER	)	File No. BPED-910501MC
	)	
For a Construction Permit for a New FM Station Binghamton, New York	)	
	)	

To: Administrative Law Judge  
Arthur I. Steinberg

PETITION FOR LEAVE TO AMEND AND AMENDMENT

ARROWHEAD CHRISTIAN CENTER ("Arrowhead") by its attorneys and pursuant to Section 73.3522(b) of the Commission's rules, hereby submits its Petition for Leave to Amend and Amendment in the above-referenced proceeding.<sup>1/</sup> Arrowhead seeks leave to amend

<sup>1/</sup> See Order, FCC 92M-1017, released October 23, 1992. On November 25, 1992, the Presiding Judge granted Arrowhead's Consent Motion for Extension of Time, until December 4, 1992, in which to file the instant amendment. See Order, FCC 92M-1058, released November 25, 1992.

On December 4, 1992, counsel for Arrowhead informed the Presiding Judge, the Mass Media Bureau and counsel for WSKG, in writing, that Arrowhead's amendment would be filed late due to an unexpected delay in delivery of the amendment to counsel from Arrowhead's engineering consultant. The delay was caused by the engineer's need to wait for delivery of the appropriate USGS topographic map, on which to locate Arrowhead's new site. Arrowhead's new site was obtained on very short-notice. The USGS map is required to be submitted pursuant to the application, Section V-B, FCC Form 340. In view of the vital importance of this amendment to the prompt resolution of this proceeding, good cause is shown for its acceptance.

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its application to change its proposed technical facilities by specifying operation on Channel 211 in lieu of Channel 218. In addition, Arrowhead proposes to change its transmitter site, antenna height and effective radiated power.

Good cause is shown for acceptance of Arrowhead's amendment as it would eliminate mutual exclusivity with the application of WSKG Public Telecommunications Council ("WSKG") and allow a grant of both the Arrowhead application, as amended, and the WSKG application.<sup>2/</sup> The grant of these applications will result in the resolution of the instant proceeding, conserve the resources of the Commission and these two NCE-FM broadcasters, and expedite NCE-FM service to the public.

The Commission has accepted and granted several similar amendments under similar circumstances. See Lakeshore Communications, Inc., FCC 91M-1428, released April 14, 1991; Yolo County Public Radio, FCC 90M-477, released March 9, 1990; Cabrini College, FCC 89M-2039, released August 8, 1989. See also Faith Bible College, FCC 92M-872, released August 13, 1992. Accordingly, the public interest would best be served by the grant of Arrowhead's amendment.

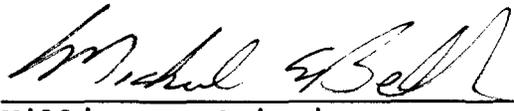
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<sup>2/</sup> On October 20, 1992, Arrowhead and WSKG filed a Joint Motion for Approval of Settlement Agreement, grant of which is contingent upon grant of the instant amendment.

WHEREFORE, Arrowhead respectfully requests the Presiding Judge to accept and grant the instant amendment, and grant the Joint Motion for Approval of Settlement Agreement, filed October 20, 1992.

Respectfully submitted,

By:



William H. Crispin  
Michael E. Beller

VERNER, LIIPFERT, BERNHARD,  
McPHERSON & HAND, CHARTERED  
901 - 15th Street, N.W.  
Suite 700  
Washington, D.C. 20005

Attorneys for Arrowhead  
Ministries, Inc.

Dated: December 11, 1992

APPLICATION FOR CONSTRUCTION PERMIT FOR  
NONCOMMERCIAL EDUCATIONAL BROADCAST STATION  
(Carefully read instructions before filing form) Return only form to FCC

For Commission Use Only
File No.

Section I - GENERAL INFORMATION

RECEIVED

1. Name of Applicant Arrowhead Ministries, <b>DEC 11 1992</b>		
FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY		
Street Address or P.O. Box One Harry L. Drive		
City Johnson City	State NY	ZIP Code 13790
Telephone No. (Include Area Code) (607) 798-1793		

Send notices and communications to the following person at the address below:		
Name David A. Martin		
Street Address or P.O. Box One Harry L. Drive		
City Johnson City	State NY	ZIP Code 13790
Telephone No. (Include Area Code) (607) 798-1793		

2. This application is for:  AM  FM  TV

(a) Channel No. or Frequency 211
-------------------------------------

(b) Principal Community	City	State
	Binghamton	NY

(c) Check one of the following boxes:

- Application for **NEW** station
- MAJOR** change in licensed facilities; call sign: \_\_\_\_\_
- MINOR** change in licensed facilities; call sign: \_\_\_\_\_
- MAJOR** modification of construction permit; call sign: \_\_\_\_\_  
File No. of construction permit: \_\_\_\_\_
- MINOR** modification of construction permit; call sign: \_\_\_\_\_  
File No. of construction permit: \_\_\_\_\_
- AMENDMENT** to pending application; application file number: BPED-910501MC

**NOTE:** It is not necessary to use this form to amend a previously filed application. Should you do so, however, please submit only Section I and those other portions of the form that contain the amended information.

3. Is this application mutually exclusive with a renewal application?  Yes  No

If Yes, state:	Call letters	Community of License	
	WUCI-FM	City Binghamton	State NY

**Section V-B - FM BROADCAST ENGINEERING DATA**

FOR COMMISSION USE ONLY

File No. \_\_\_\_\_

ASB Referral Date \_\_\_\_\_

Referred by \_\_\_\_\_

Name of Applicant

Arrowhead Ministries, Inc.

Call letters *(if issued)*

(new)

Is this application being filed in response to a window?  Yes  No

If Yes, specify closing date: 05/01/91

Purpose of Application: *(check appropriate boxes)*

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Construct a new (main) facility            | <input type="checkbox"/> Construct a new auxiliary facility                         |
| <input type="checkbox"/> Modify existing construction permit for main facility | <input type="checkbox"/> Modify existing construction permit for auxiliary facility |
| <input type="checkbox"/> Modify licensed main facility                         | <input type="checkbox"/> Modify licensed auxiliary facility                         |

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- |   |   |
|---|---|
| <input type="checkbox"/> Antenna supporting-structure height  | <input type="checkbox"/> Effective radiated power         |
| <input type="checkbox"/> Antenna height above average terrain | <input type="checkbox"/> Frequency                        |
| <input type="checkbox"/> Antenna location                     | <input type="checkbox"/> Class                            |
| <input type="checkbox"/> Main Studio location                 | <input type="checkbox"/> Other <i>(Summarize briefly)</i> |

Amend

File Number(s) BPED-910501MC

1. Allocation:

Channel No.	Principal community to be served:		
	City	County	State
211	Binghamton	Broome	NY

Class *(check only one box below)*

- A  B1  B  C3  
 C2  C1  C  D

2. Exact location of antenna.

- (a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.  
 Philley Hill, 18.62 kilometers @ 286 degrees True from Binghamton, NY reference point in Broome County, NY. Co-located with WKGB-FM.
- (b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	42° 03' 10"	Longitude	75° 42' 07"
----------	-------------	-----------	-------------

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)?  Yes  No

If Yes, give call letter(s) or file number(s) or both.

WKGB(FM) BPH-900621IA

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

4. Does the application propose to correct previous site coordinates?  Yes  No  
 If Yes, list old coordinates.

Latitude            °            '            "	Longitude           °            '            "
---	---

5. Has the FAA been notified of the proposed construction?  Yes  No  
 If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Exhibit No.
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Date 12/04/92 Office where filed AEA-530 Jamaica, NY

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Distance (km)	Bearing (degrees True)
(a) <u>None</u>	_____	_____
(b) _____	_____	_____

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 573 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 55 meters

(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] 628 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground 46 meters (H)

46 meters (V)

(2) above mean sea level [(aX1) + (bX1)] 619 meters (H)

619 meters (V)

(3) above average terrain 209 meters (H)

209 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(bX3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No. E-1
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9. Effective Radiated Power:

(a) ERP in the horizontal plane 0.1 kw (H\*) 0.1 kw (V\*)

(b) Is beam tilt proposed?  Yes  No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No. N/A
--------------------

\_\_\_\_\_ kw (H\*) \_\_\_\_\_ kw (V\*)

\*Polarization

SECTION V-B - FM BROADCAST ENGINEERING DATA (Page 3)

10. Is a directional antenna proposed?

Yes  No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field.

Exhibit No.  
E-1

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour?

Yes  No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125.

Exhibit No.  
N/A

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference?

Yes  No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)*

Exhibit No.  
E-2

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No.  
E-3

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.  
E-4

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 464.09 sq. km. Population 76,571

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours.

Exhibit No.  
N/A

Enter the following from Exhibit above: Gain Area \_\_\_\_\_ sq. mi.  
Loss Area \_\_\_\_\_ sq. mi.

Percent change (gain area plus loss area as percentage of present area) \_\_\_\_\_ %.  
If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

Exhibit No.  
N/A

17. For an application involving an auxiliary facility only, attach as an Exhibit a map (*Sectional Aeronautical Chart or equivalent*) that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: \_\_\_\_\_)

18. Terrain and coverage data (*to be calculated in accordance with 47 C.F.R. Section 73.373*).

Source of terrain data: (*check only one box below*)

Linearly interpolated 30-second database  7.5 minute topographic map

(Source: NGDC)

Other (*briefly summarize*)

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	See Exhibit E-5	
45		
90		
135		
180		
225		
270		
315		

**Allocation Studies**

(*See Subpart C of 47 C.F.R. Part 73*)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico?

Yes  No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No.  
N/A

20. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada?

Yes  No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947.

Exhibit No.  
E-6

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following:

Exhibit No.  
E-6

- (a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
- (b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
- (c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
- (d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
- (e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
- (f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
- (g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
- (h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ (*separation requirements involving intermediate frequency i.f.1 interference*).

Exhibit No.  
E-6

23.(a) is the proposed operation on Channel 218, 219, or 220?

Yes  No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207?

Yes  No N/A

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223.

Exhibit No.  
N/A

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose.

Exhibit No.

N/A

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

SECTION V-B - FM BROADCAST ENGINEERING DATA (Page 6)

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No.  
N/A

- (1) Protected and interfering contours, in all directions (360 ), for the proposed operation.
- (2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
- (3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
- (4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
- (5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

Yes  No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No.  
E-7

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

Yes  No

If Yes, attach as an Exhibit information required in 1/. (Except for Class D (secondary) proposals.)

Exhibit No.  
N/A

26. Environmental Statement (See 47 C.F.R. Section 1.1301 et seq.)

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

Yes  No

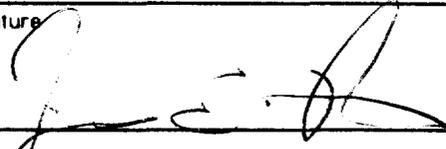
If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No.  
E-8

If No, explain briefly why not.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name (Typed or Printed) James E. Price	Relationship to Applicant (e.g., Consulting Engineer) Technical Consultant
Signature 	Address (Include ZIP Code) Sterling Communications, Inc. P.O. Box 80484 Chattanooga, TN 37411-7484
Date December 4, 1992	Telephone No. (Include Area Code) (615) 899-9393

**Exhibit E-1**  
**Arrowhead Ministries, Inc.**  
**Binghamton, New York**  
**Proposed Antenna System**

The proposed antenna will be an SWR custom circularly polarized directional antenna. Figure 1 is a vertical plan sketch of the proposed installation. Figure 2 is a tabulation of the proposed directional pattern. Figure 3 presents this same data in polar form, and Figure 4 presents the proposed vertical radiation pattern for this antenna.

When final pattern modeling is conducted by the antenna manufacturer, both the horizontally and vertically polarized radiation patterns will be totally encompassed within this envelope. Following the completion of this pattern modeling, the antenna will be mounted on the tower in accordance with the manufacturer's instructions. No other antennas will be mounted within the aperture of this antenna. Furthermore, there will be no platform or other similar structure at the top of the proposed tower which could possibly distort the directional pattern of this antenna. The maximum proposed effective radiated power in both the horizontal and vertical polarizations will be 100 watts. The maximum pattern suppression does not exceed the 15 dB value permitted by Section 73.316 of the Rules. Furthermore, the slope of this pattern does not exceed 2 dB per 10 degrees azimuth at any point on the pattern.

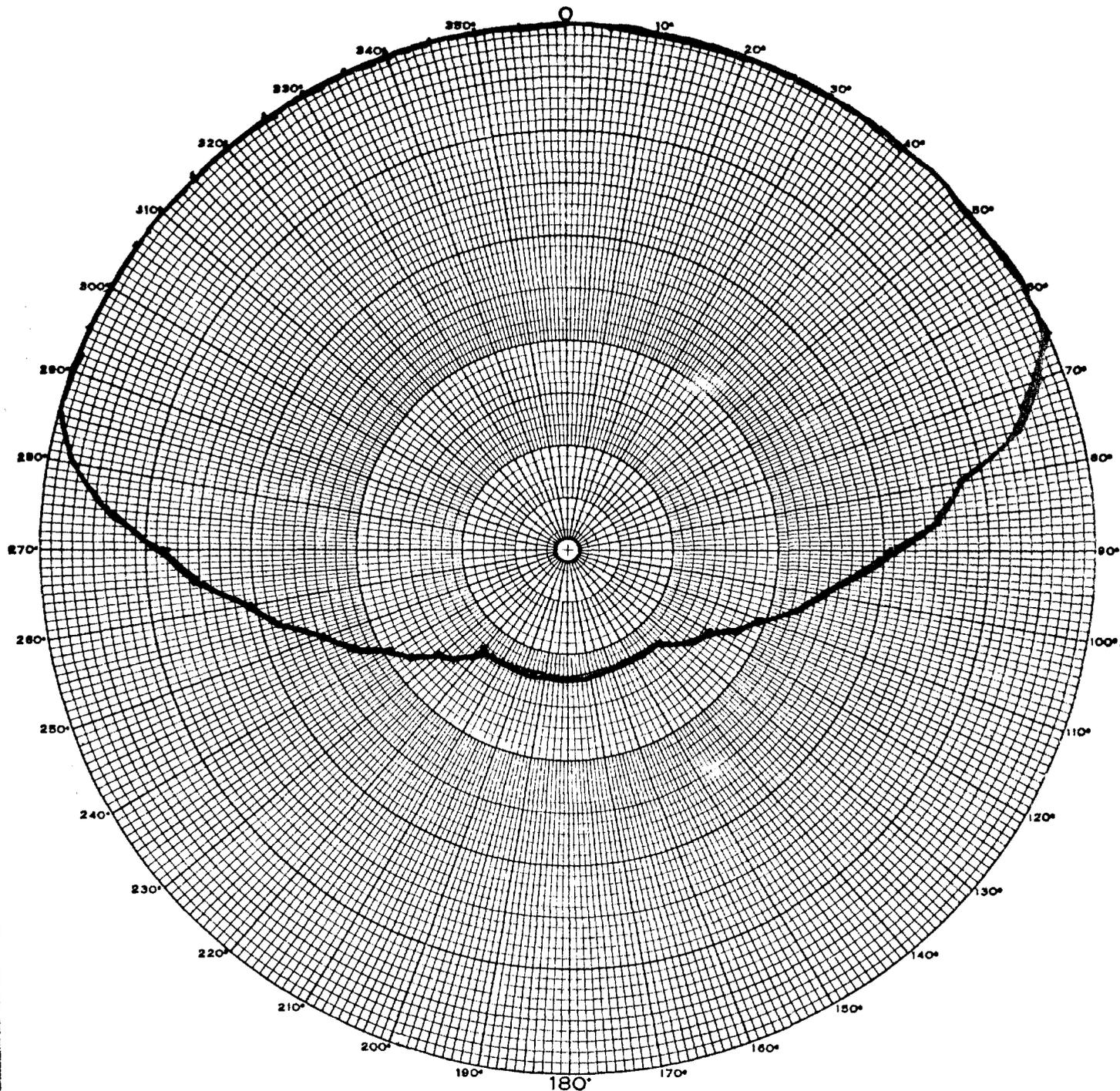


**Exhibit E-1 - Figure 2**  
**Arrowhead Ministries, Inc.**  
**Binghamton, New York**  
**Directional Antenna Horizontal Pattern Relative Field**

Azimuth	Field	dBk	ERP-KW	+/- 2 dB per 10 deg.
0	1.00	-10.00	0.1000	0.00
5	1.00	-10.00	0.1000	0.00
10	1.00	-10.00	0.1000	0.00
15	1.00	-10.00	0.1000	0.00
20	1.00	-10.00	0.1000	0.00
25	1.00	-10.00	0.1000	0.00
30	1.00	-10.00	0.1000	0.00
35	1.00	-10.00	0.1000	0.00
40	1.00	-10.00	0.1000	0.00
45	1.00	-10.00	0.1000	0.00
50	1.00	-10.00	0.1000	0.00
55	1.00	-10.00	0.1000	0.00
60	1.00	-10.00	0.1000	0.45
65	1.00	-10.00	0.1000	1.11
70	0.95	-10.45	0.0903	1.94
75	0.88	-11.11	0.0774	1.86
80	0.760	-12.38	0.0578	1.91
85	0.71	-12.97	0.0504	1.98
90	0.61	-14.29	0.0372	1.90
95	0.565	-14.96	0.0319	1.98
100	0.490	-16.20	0.0240	1.98
105	0.450	-16.94	0.0203	1.94
110	0.390	-18.18	0.0152	1.99
115	0.360	-18.87	0.0130	1.58
120	0.3100	-20.17	0.0096	1.87
125	0.300	-20.46	0.0090	1.58
130	0.250	-22.04	0.0063	0.00
135	0.250	-22.04	0.0063	0.00
140	0.250	-22.04	0.0063	0.00
145	0.250	-22.04	0.0063	0.00
150	0.250	-22.04	0.0063	0.00
155	0.250	-22.04	0.0063	0.00
160	0.250	-22.04	0.0063	0.00
165	0.250	-22.04	0.0063	0.00
170	0.250	-22.04	0.0063	0.00
175	0.250	-22.04	0.0063	0.00
180	0.250	-22.04	0.0063	0.00

## Exhibit E-1 - Figure 2, Cont'd

Azimuth	Field	dBk	ERP-KW	+/- 2 dB per 10 deg.
185	0.250	-22.04	0.0063	0.00
190	0.250	-22.04	0.0063	0.00
195	0.250	-22.04	0.0063	0.00
200	0.250	-22.04	0.0063	0.00
205	0.250	-22.04	0.0063	0.00
210	0.250	-22.04	0.0063	0.00
215	0.250	-22.04	0.0063	1.58
220	0.250	-22.04	0.0063	1.87
225	0.300	-20.46	0.0090	1.58
230	0.310	-20.17	0.0096	1.99
235	0.360	-18.87	0.0130	1.94
240	0.390	-18.18	0.0152	1.98
245	0.450	-16.94	0.0203	1.98
250	0.490	-16.20	0.0240	1.90
255	0.565	-14.96	0.0319	1.98
260	0.610	-14.29	0.0372	1.91
265	0.710	-12.97	0.0504	1.86
270	0.760	-12.38	0.0578	1.94
275	0.880	-11.11	0.0774	1.11
280	0.950	-10.45	0.0903	0.45
285	1.000	-10.00	0.1000	0.00
290	1.000	-10.00	0.1000	0.00
295	1.000	-10.00	0.1000	0.00
300	1.000	-10.00	0.1000	0.00
305	1.000	-10.00	0.1000	0.00
310	1.000	-10.00	0.1000	0.00
315	1.000	-10.00	0.1000	0.00
320	1.000	-10.00	0.1000	0.00
325	1.000	-10.00	0.1000	0.00
330	1.000	-10.00	0.1000	0.00
335	1.000	-10.00	0.1000	0.00
340	1.000	-10.00	0.1000	0.00
345	1.000	-10.00	0.1000	0.00
350	1.000	-10.00	0.1000	0.00
355	1.000	-10.00	0.1000	0.00



1 unit = 0.02 Field

Exhibit E-1 - Figure 3  
 Arrowhead Ministries, Inc.  
 Binghamton, New York  
 Horizontal Pattern - Relative Field

Antenna: SWR, Inc.  
 Model : Custom

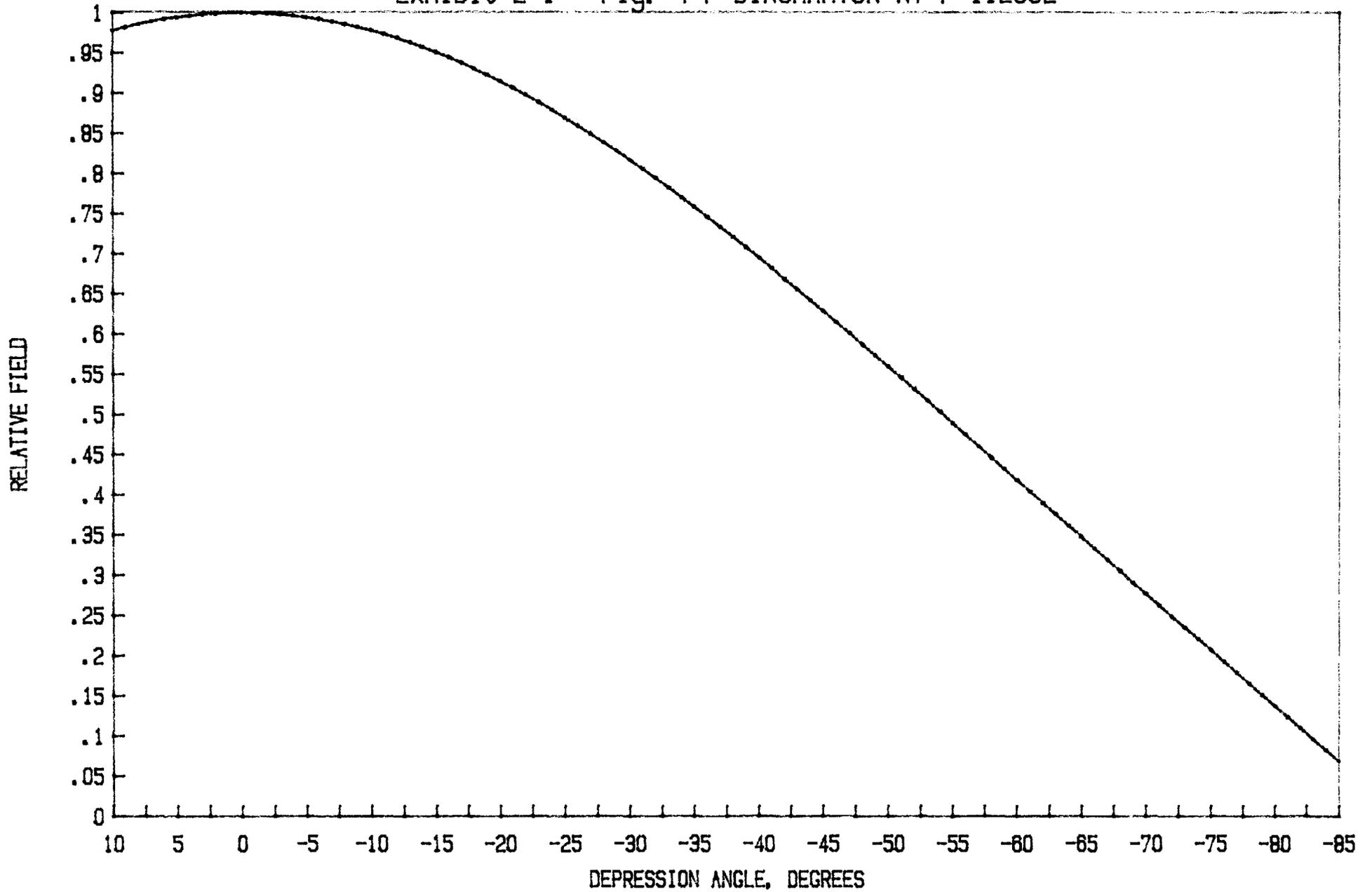
ERP MAX: 0.1 kW  
 ERP MIN: 0.0063 kW

H & V Patterns are equal.

Sterling Communications, Inc.  
 P.O. Box 80484  
 Chattanooga, TN 37411-7484

# VERTICAL ANTENNA PATTERN

Exhibit E-1 - Fig. 4 | BINGHAMTON NY | 112892



**Exhibit E-2**  
**Arrowhead Ministries, Inc.**  
**Binghamton, New York**  
**Stations Within 60 Meters Of Antenna**

The existing tower structure presently supports the antenna of FM station WKGB on Channel 223 with an antenna radiation center 625 meters above mean sea level.

The proposed new NCE-FM antenna will not share a common aperture with WKGB, but will be located at 619 meters above mean sea level.

Studies conducted in this office permit the conclusion that spurious products between the proposed NCE-FM facility and WKGB will remain below levels specified in the Commission's Rules. No significant pattern distortion, inter modulation, or re-radiation will result from the physical mounting of the antennae in proximity as described. However, the applicant is aware of its responsibility to preserve the ambient suitability of the site for pre-existing facilities, and accepts such responsibility as a pre-condition of grant whether informally or as a specific condition of its Construction Permit. Should special means such as pass band or stop-band filters and special mounting considerations be required to comply with applicable technical standards and the generally accepted principles of good engineering practice, the applicant stands ready to implement such measures as may be found necessary at construction in order to preserve any pre-existing services on the host structure.

**Exhibit E-3 - Figure 1**  
**Arrowhead Ministries, Inc.**  
**Binghamton, New York**  
**Site Map - Reduced**



Mapped, edited and published by the Geological Survey  
Control by USGS, USCGS, USCE, and New York State Survey  
Topography from aerial photographs by multiple methods  
Aerial photographs taken 1948. Field check 1952  
Polyconic projection. 1927 North American datum.  
10,000-foot grid based on New York coordinate system;  
central zone  
1,000-meter Universal Transverse Mercator grid less  
zone 18, shown in blue



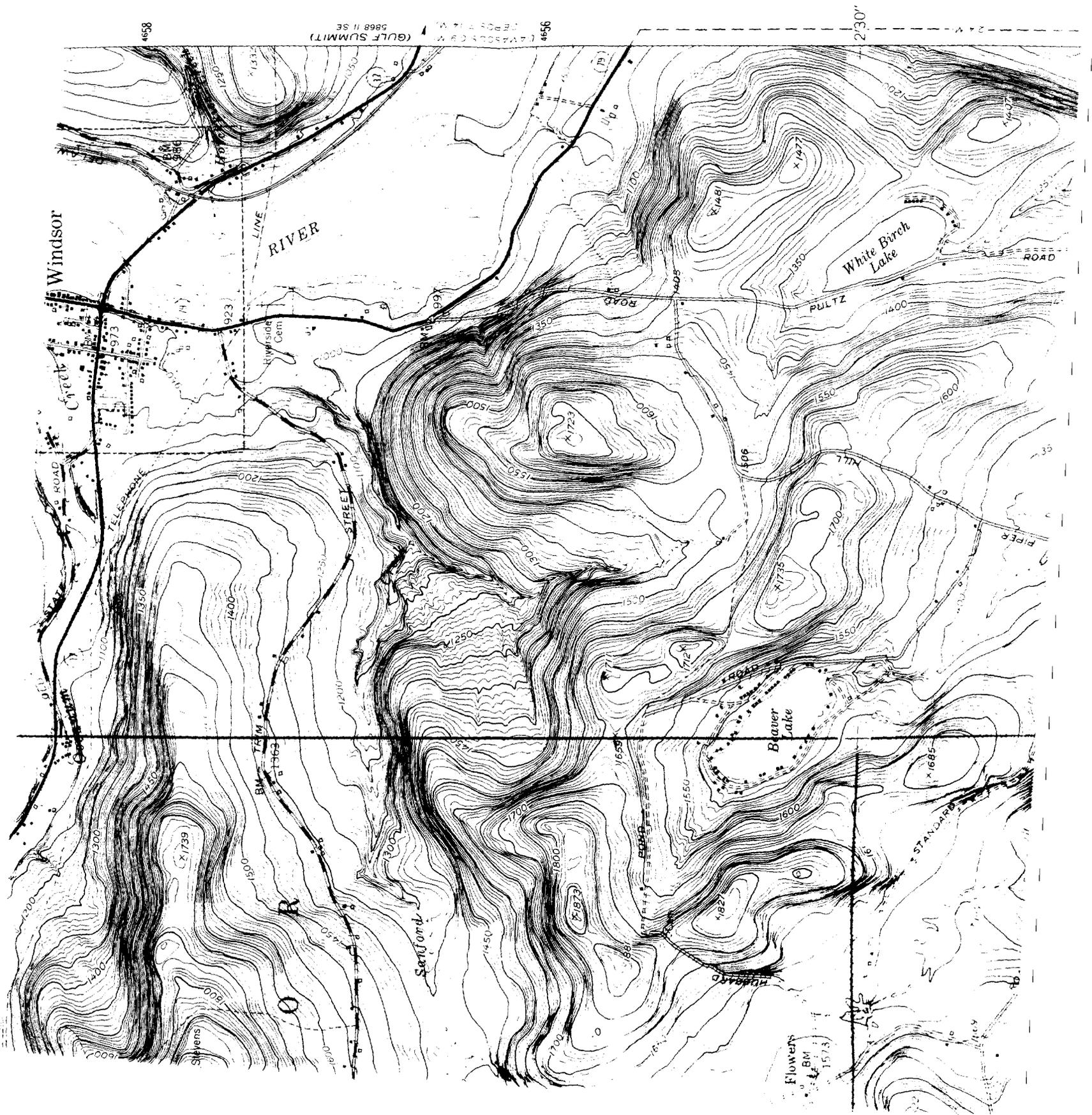
ROAD CLASSIFICATION  
Major-duty Light-duty   
Minor-duty Unimproved dirt   
U.S. Route State Route

THIS MAP COMPLEIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

WINDSOR, N.Y.  
SW 1/4 SECTION 19, QUADRANGLE  
N4200-W2757 5/7.5  
1952  
AMB 5858 II SW-SERIES 1952



Exhibit E-3  
Arrowhead Ministries, Inc.  
Binghamton, NY  
Site Map



4656  
LAWSON'S C.M. (GULF SUMMIT)  
1888 II SE

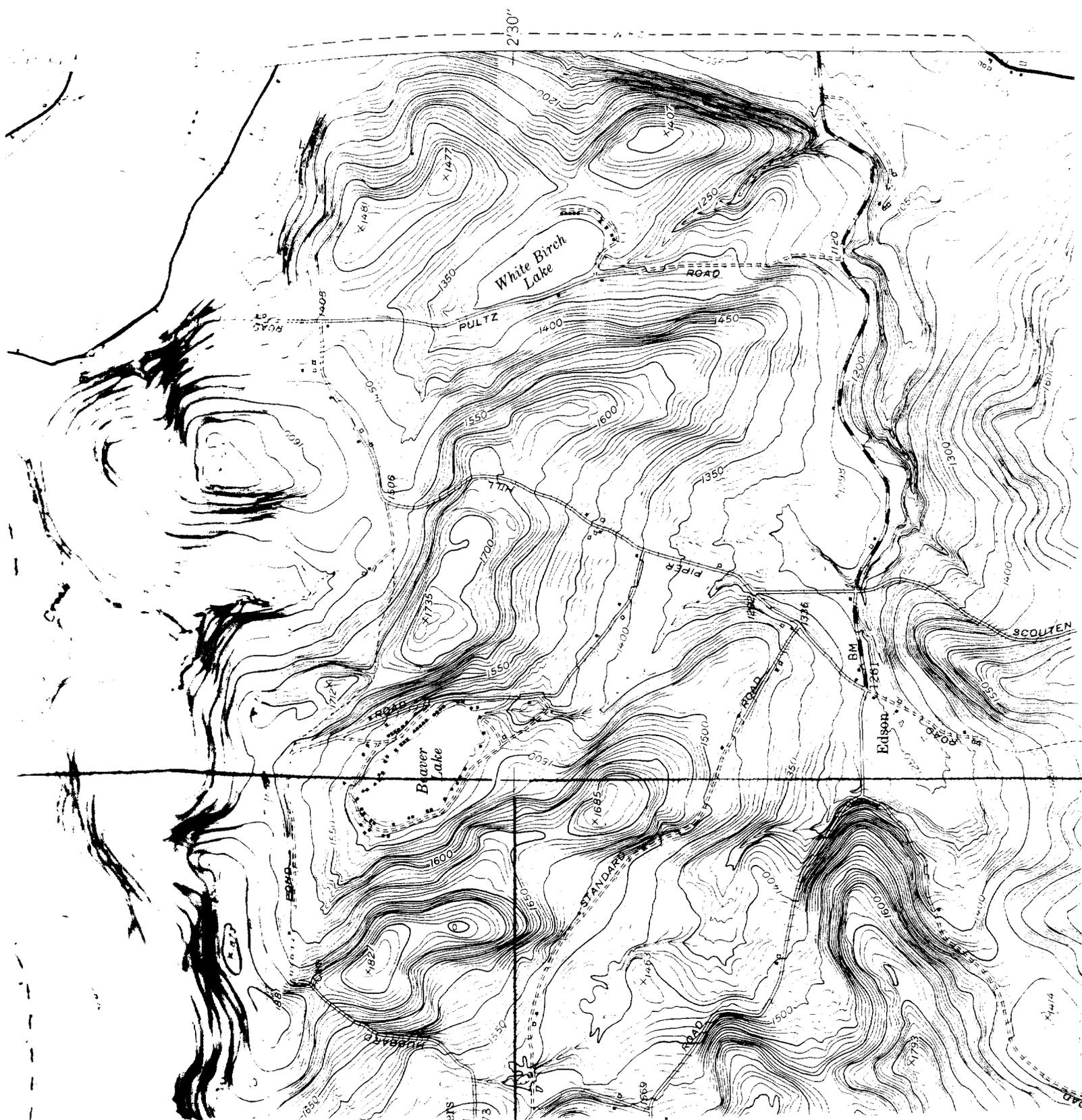
Windsor

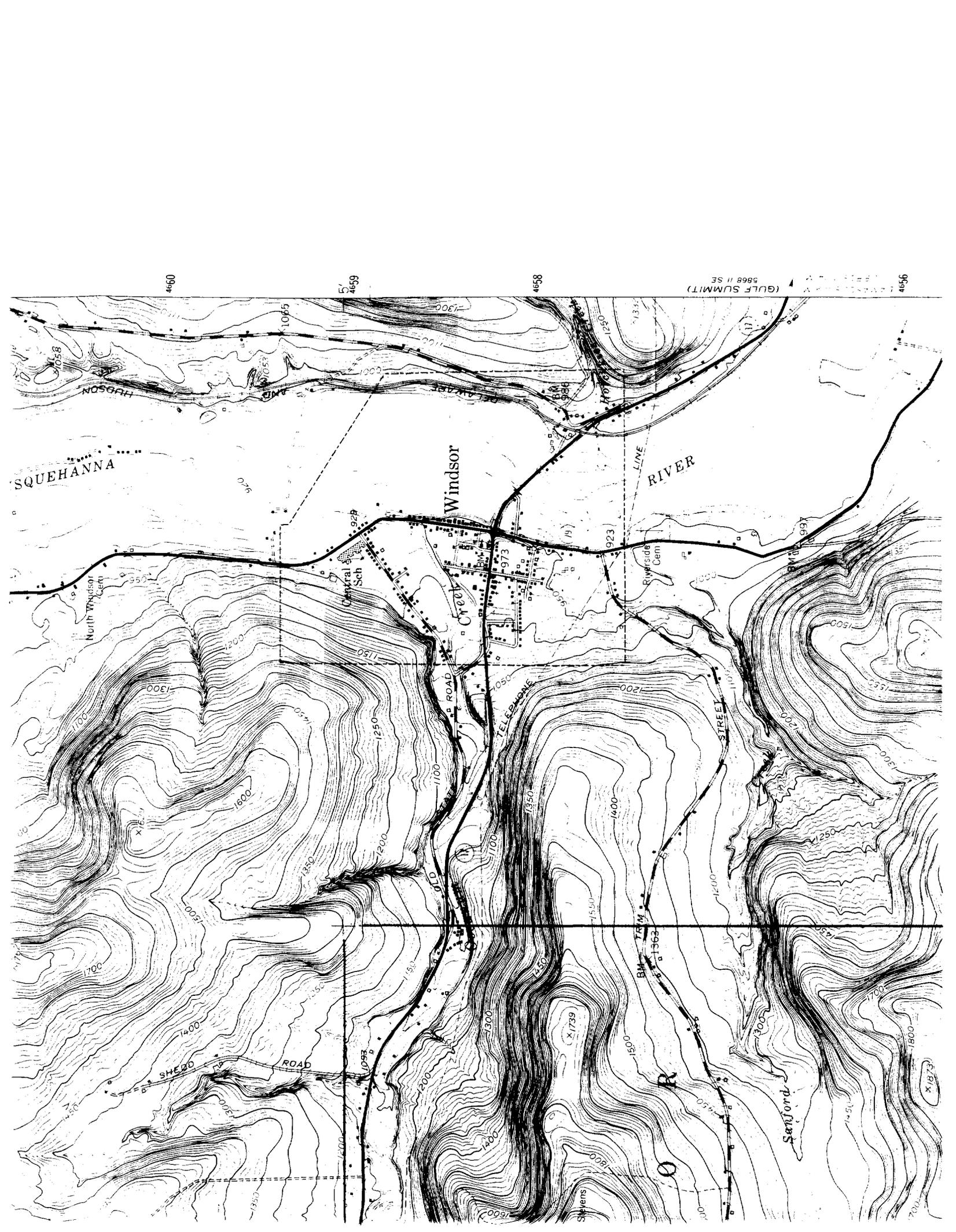
RIVER

White Birch Lake

Beaver Lake

Flowers  
BM  
1573





SQUEHANNA

Windsor

RIVER

SHEEDO ROAD

TELEPHONE ROAD

RIVERSIDE STREET

4660

5' 4659

4658

(GULF SUMMIT) 5868 II SE

4656

North Windsor Cem

Central Sch

Riverside Cem

Stevens

Stanford

WINDSOR QUADRANGLE  
NEW YORK—BROOME CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)  
SW/4 NINEVEH 15' QUADRANGLE

5808 1 NE  
(AFTON)

