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## ENGINEERING STATEMENT:

Amended Facilities

Request for Special Temporary Authority

Radio Station WFME, 1560 kHz, New York, New York

Facility ID # 29024

October 21, 2021

## **Amended Engineering Statement: Radio Station WFME, New York, NY**

This Engineering Statement has been prepared on behalf of Family Stations, Inc., licensee of standard broadcast station WFME, New York, NY.

WFME is a class A (formerly class I-B) AM broadcast station, which is licensed for operation with 50 kW fulltime, employing different directional patterns for operation daytime (sunrise NYC to sunset Bakersfield, CA) and nighttime (sunset Bakersfield, CA to sunrise NYC). The licensed transmitting site for WFME has been sold, and the station currently holds Special Temporary Authority to remain silent, BLSTA-20210224AAC.

In order to permit continued operation of WFME, Family Stations proposes the use of a temporary installation at the site of FM broadcast stations WNSH & WFMU (and six other FM auxiliary licenses) an antenna installation which is owned by Family Stations. This site is located in reasonable proximity to the community of license of WFME, New York City, about 25 km west of that community.

A slant wire feed wire extending to an intermediate level of the grounded 203 foot tapered self-supporting tower (ASRN 1045804) which also supports the pole mounted FM antenna for the FM stations is proposed, mounted and configured as shown in the attached drawing. The base of this wire will be terminated on the roof of the adjacent equipment building and the matching network installed in an antenna tuning unit at this location. The installation will have minimal ground system, and this has been taken into account in the efficiency analysis. The assumed efficiency for this antenna installation, based on reasonable assumptions and a moment method model, is 225 mV/m/kW/km. Operation is proposed with no more than 1 kW.

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The attached map shows that operating with 1 kW the proposed STA facility will provide daytime signal in excess of 0.5 mV/m to a substantial portion of the community of license.

There are other communications facilities located near the STA site, and after inspection of the site we have determined that it is prudent to reduce the proposed operating power to avoid potential compatibility issues.

No complaints of interference to other licensees are anticipated, since WFME operation at this power level complies with all FCC allocation criteria to adjacent and co-channel stations. This proposal also meets the Media Bureau's four criteria for STA operation at a site other than the licensed main transmitter site.

The tower base is surrounded by a perimeter fence (and locked gate) and since the tower is grounded fields are anticipated to be low. Measurements will be made to determine any increase in the fence distance from the tower required to limit access to area where the public exposure standard of 73.1.1310 may be exceeded.



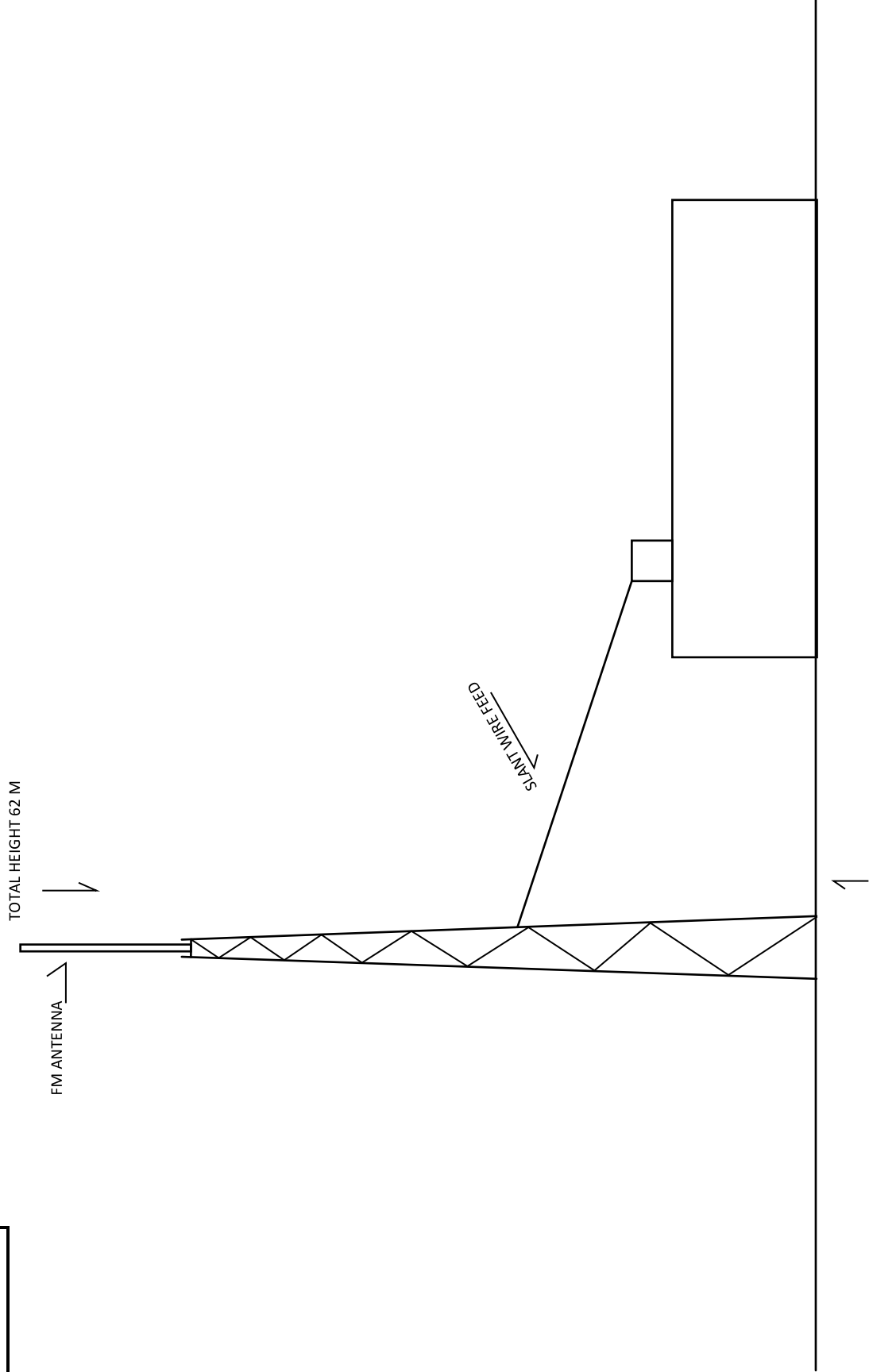
Benj. F. Dawson III, P.E.

10/21/2021

Hatfield & Dawson Consulting Engineers, LLC

Attachments: Antenna and Slant Wire Feed Configuration  
Map of 0.5 mV/m Contour for Proposed STA with 1 kW

NOT TO SCALE, NOT FOR  
CONSTRUCTION



ANTENNA STRUCTURE REGISTRATION 1045804

**HATFIELD & DAWSON**  
CONSULTING ENGINEERS

FAMILY RADIO, INC

WFME NEW YORK, NY

5/2021

STA ANTENNA

HEL  
5/28/2021

WFME

Freq: 1560 kHz  
Class: A  
Latitude: 40-47-18 N  
Longitude: 074-15-19 W  
Power: 1 kW  
RMS: 225 mV/m @1km  
# Towers: 1  
# Augs: 0

WFME Operation  
with 1 kW from  
Orange STA  
Antenna System

