

ENGINEERING EXHIBIT

APPLICATION FOR CONSTRUCTION PERMIT

prepared for

WYPR Baltimore, Maryland
Facility Id 65753
Ch. 201B 15.5 kW 130 m

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Statement A
NATURE OF THE PROPOSAL
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The attached FCC Form 340 Section V-B and associated exhibits have been prepared on behalf of WYPR

(FM), Ch. 201B1, Baltimore, Maryland facility (file number BLED-19861003KF). JHU proposes a new directional antenna horizontal plane pattern and an increase in effective radiated power ("ERP") to 15.5 kW. The proposed combination of 15.5 kW ERP and 129.6 meters antenna height above average terrain (HAAT) will constitute a Class B facility.

The new antenna will be installed on the same tower structure presently utilized by station WYPR Antenna Structure Registration number 1022765). The antenna HAAT and height above ground will remain as presently licensed.

Statement B
ALLOCATION CONSIDERATIONS
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FM Facilities

A study of distances to other facilities from the proposed transmitter site shows that the following existing FM facilities required study in regard to prohibited contour overlap under §73.509 of the Commission's Rules:

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	LICENSEE
201B1 Frederick	WJTM	CP MD	277.8 97.8	73.28 BMPED19890906IB	39 25 05 77 30 03	4.000 169	Joy Public B'casting
201A Pike Creek	WMHS	LIC DE	60.5 240.5	97.41 BLED20000518ABE	39 45 27 75 40 02	0.088 37	Red Clay Consolidated
201A Pike Creek	WMHS	CP DE	60.5 240.5	97.41 BMPED20000518ABS	39 45 27 75 40 02	0.088 37	Red Clay Consolidated
201A Harrisburg	WXPH	LIC PA	349.4 169.4	105.19 BLED19950918KD	40 15 44 76 53 11	0.540 32	Trustees Of The Univ.
201A Warwick	WBMP	CP PA	36.7 216.7	110.94 BPED19980909MK	40 07 45 75 52 43	0.180 179	Four Rivers Community
203B Washington	WAMU	LIC DC	220.6 40.6	57.80 BLED19901214KD	38 56 09 77 05 33	50.000 152	The American University
202A Elizabethtown	WVEC	LIC PA	3.4 183.4	90.84 BLED19900830KB	40 08 53 76 35 38	0.100 35	Elizabethtown College
202A Carlisle	WDCVFM	LIC PA	334.8 154.8	107.15 BLED19821012AT	40 12 09 77 11 46	0.450 -13	Trustees of Dickinson
202B Princess Anne	951128MA	APP MD	147.0 327.0	161.08 BPED19951128MA	38 06 43 75 39 14	50.000 134	Maranatha Inc.
204B Denton	980320MP	APP MD	124.5 304.5	84.72 BPED19980320MP	38 53 51 75 51 07	25.000 148	Positive Alternative
204B1 Massey	980320MK	APP MD	103.6 283.6	79.66 BPED19980320MK	39 09 34 75 45 43	10.100 100	University Of Md
204B1 Harrington	980320MD	APP DE	117.4 297.4	105.23 BPED19980320MD	38 53 30 75 34 48	22.000 103	Eagle's Nest Fellowship
204B1 Harrington	970915MB	APP DE	117.4 297.4	105.23 BPED19970915MB	38 53 30 75 34 48	17.000 100	American Family Assoc.
204B1 Middletown	970806MC	APP PA	351.6 171.6	83.43 BPED19970806MC	40 04 29 76 48 02	3.100 148	Four Rivers Community
204B1 Harrington	980320MM	APP DE	113.6 293.6	110.55 BPED19980320MM	38 55 41 75 29 20	11.000 91	Mary V. Harris

The attached **Figures 1, 1A, 1B, 2 and 3** depict the pertinent protected and interfering contours of the above facilities and the proposed facility. The contours were plotted using the actual ERP and height above terrain along each radial for each facility, as specified in §73.509(c).

Cavell, Mertz & Davis, Inc.

Statement B
ALLOCATION CONSIDERATIONS
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For the facilities under study, the antenna elevation above mean sea level, geographic coordinates, and ERP (including directional antenna relative fields, where appropriate) were retrieved from the FCC's engineering database. The requisite contours were determined using digitized U.S.G.S 3-second terrain data along each radial of interest from each transmitter site and an implementation of the Commission's TVFMPS computer program which simulates the FM propagation curves. The F(50,10) distances are used to calculate distance to interfering contours, however if the distance is less than 16 km, the F(50,50) curves are used, as specified by §73.509(c)(1).

Figure 1 illustrates that there is no prohibited contour overlap between the proposed Channel 201 facility and pertinent co-channel facilities. **Figures 1A** and **1B** are detail maps, showing that prohibited contour overlap does not occur with WXPB(FM) or WJTM(FM), respectively. **Figure 2** demonstrates that no contour overlap would exist with any pertinent first-adjacent facilities. **Figure 3** illustrates the lack of any prohibited overlap with respect to second-adjacent and third-adjacent facilities. Thus, **Figures 1, 1A, 1B, 2** and **3** show that the proposed facility fully complies with the prohibited overlap criteria of §73.509 of the Commission's rules.

A spacing study was performed as required by §73.507(c) regarding facilities differing in frequency by 10.6 or 10.8 MHz from the proposal. The instant proposal meets the minimum distance separation requirements of §73.207 in all such instances. The nearest pertinent station, WMZQ-FM, Washington, DC, is 68.2 km from the proposed transmitter, 48.2 km in excess of the minimum separation required by the Rules.

TV Channel 6 Protection

The instant proposal complies with the protection requirements to TV Channel 6 as required by §73.525. Under §73.525(a)(1), an affected TV Channel 6 station must be considered with a proposed non-commercial educational facility on Channel 201 if the distance between the respective transmitter sites is less than 265 km. Within 265 km radius of the proposed facility, the only TV Channel 6 facilities are those of WPVI-TV (Philadelphia, PA, 145.1 km distant), WTVR-TV (Richmond, VA, 208.5 km) and WJAC-TV (Johnstown, PA, 230.1 km).

Statement B
ALLOCATION CONSIDERATIONS
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Accordingly, **Figure 4** depicts the WPVI-TV, WTVR-TV and WJAC-TV Grade B (47 dB μ) contours, along with the interfering 54 dBu F(50,10) contour from the proposed facility.¹ Figure **4A** supplies a detail of the WPVI-TV contour. As shown on **Figures 4** and **4A**, there is no area of contour overlap with any affected Channel 6 television station.

It is thus believed that the facility proposed herein will satisfy all of the pertinent Commission Rules and Policies now in effect regarding allocation matters and contour protection.

AM Facilities

The only AM station within 3.2 km (2 miles) of the proposed site is the licensed night facility for WWLG(AM), Baltimore. WWLG is licensed at 1.5 kW on 1360 kHz, directional, at a distance of 0.6 km. A construction permit (BMJP-20001023ACJ) authorized WWLG to relocate to a site 13.3 km distant from and change to 1370 kHz.

Inasmuch as the proposed antenna will be side-mounted on an existing structure with various other antennas and feedlines in place, and the proposed common antenna will be installed at the same elevation in place of the existing antenna, the instant proposal is not expected to cause any adverse effect with respect to WWLG. Therefore, respectfully requests that a Construction Permit grant not be conditioned with respect to WWLG.

¹The interfering contour level is determined in accordance with §73.525(e)(1)(ii), and considers the additional 6 dB receiving antenna directivity as permitted by §73.525(e)(1)(iii).