

Section 74.1204 - Statement of Compliance
AM Revitalization Auction 99 FM Translator
Long-Form Application Filing Window
NEW FM Translator Station Facility ID. 201293
Tech Box Proposal FCC File No. BNPFT-20170727AFP
December, 2017

The instant “Long Form Application for FM Translator in Auction Window 99” is filed in response to the FCC’s Public Notice, DA 17-1068, Released November 1, 2017, for a new FM translator station to rebroadcast Class C AM station: WQWK, State College, PA (Facility ID 48923). The Public Notice announced a window, opening from December 1, 2017, to December 21, 2017, for the filing of FM translator new station construction permit applications for singleton “Tech Box” proposals such as the Tech Box proposal referenced above. As a “singleton” proposal, the instant application is exempt from the Commission’s auction procedures.

This long-form application specifies the identical technical facility as previously submitted in the Tech Box proposal. Accordingly, the instant proposal may be considered a “minor change”. Further, the instant long-form application does not create a new conflict to any pending Auction 99 Tech Box proposal, or to any prior-filed Form 349 application. As discussed below, the instant proposal complies with the protection requirements set forth in Section 74.1204 of the FCC Rules

Section 74.1204(a) Contour Overlap Protection Criteria

Attached are two maps which demonstrate that proposed technical facility complies with the contour overlap provisions of Section 74.1204(a) of the FCC Rules with respect to all pertinent cochannel (See Exhibit 1) and first-adjacent channel (See Exhibit 2) assignments, authorizations and applications. The instant proposal is well clear of all other relevant co-channel and first-adjacent channel protection considerations not represented herein.

Section 74.1204(d) Second/Third-Adjacent Channel Protection

Attached is a map (See Exhibit 3) which demonstrates that proposed technical facility complies with the contour overlap provisions of Section 74.1204(a) of the FCC Rules with respect to third-adjacent channel station W282BT, Bellefonte, PA (Channel 282D). The required protection to third-adjacent channel station WAPY(FM), State College, PA (Channel 276A) is discussed below. The instant proposal is well clear of all other relevant second and third-adjacent channel protection considerations not represented herein.

The proposed transmitting antenna will be located within the protected contour of the stations listed above which results in contour overlap as defined in Section 74.1204 of the FCC Rules. However, at the translator’s proposed transmitter site, WAPY(FM) is

predicted to produce an F(50,50) signal strength of 79 dBu. Therefore, in the vicinity of the third-adjacent channel station, the translator's relevant interfering contour is the 119 dBu contour relative to WAPY(FM). According to free space calculations, the translator's predicted interfering contour will not reach the ground (See attached Table). Therefore, the instant proposal will cause no interference to any population served by WAPY(FM).

Accordingly, the proposed facility satisfies Section 74.1204(d) of the FCC Rules because it has been "demonstrated that no actual interference will occur due to lack of population or such other factors as may be applicable".

Section 74.1204 CoChannel Contour Overlap Study

Exhibit 1

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Key to Stations on Map

- FX.APP.279D
- W279AB.279D.FAC.ID.17614
- WCXR.279A.FAC.ID.15187

Section 74.1204 Contours

Proposed FX Interfering Contour (DASHED):

- 40 dBu F(50,10) to Class A & FX & LPFM
- 40 dBu F(50,10) to Class C, C0, C1, C2, C3
- 37 dBu F(50,10) to Class B1 FM Station
- 34 dBu F(50,10) to Class B FM Station

Relevant Protected Contours (SOLID):

- Class A, C, Cx, FX & LPFM = 60 dBu F(50,50)
- Class B1 FM Station = 57 dBu F(50,50)
- Class B FM Station = 54 dBu F(50,50)

FX.APP.279D

State College, PA
Latitude: 40-48-32 N
Longitude: 077-50-28 W
ERP: 0.25 kW
Channel: 279
Frequency: 103.7 MHz
AMSL Height: 386.0 m
Horiz. Pattern: Omni

Scale 1:975,000



Section 74.1204 First-Adjacent Channel Contour Overlap Study

Exhibit 2 December, 2017

Key to Stations on Map

- FX.APP.279D
- WHUN-FM.278A.FAC.ID.42135
- WALY.280A.FAC.ID.58312

FX.APP.279D

State College, PA
Latitude: 40-48-32 N
Longitude: 077-50-28 W
ERP: 0.25 kW
Channel: 279
Frequency: 103.7 MHz
AMSL Height: 386.0 m
Horiz. Pattern: Omni

Section 74.1204 Contours

Proposed FX Interfering Contour (DASHED):
54 dBu F(50,10) to Class A & FX & LPFM
54 dBu F(50,10) to Class C, C0, C1, C2 & C3
51 dBu F(50,10) to Class B1 FM Station
48 dBu F(50,10) to Class B FM Station

Relevant Protected Contours (SOLID):
Class A & FX & LPFM = 60 dBu F(50,50)
Class C, C0, C1, C2 & C3 = 60 dBu F(50,50)
Class B1 FM Station = 57 dBu F(50,50)
Class B FM Station = 54 dBu F(50,50)

Scale 1:650,000

0 9 18 27 km

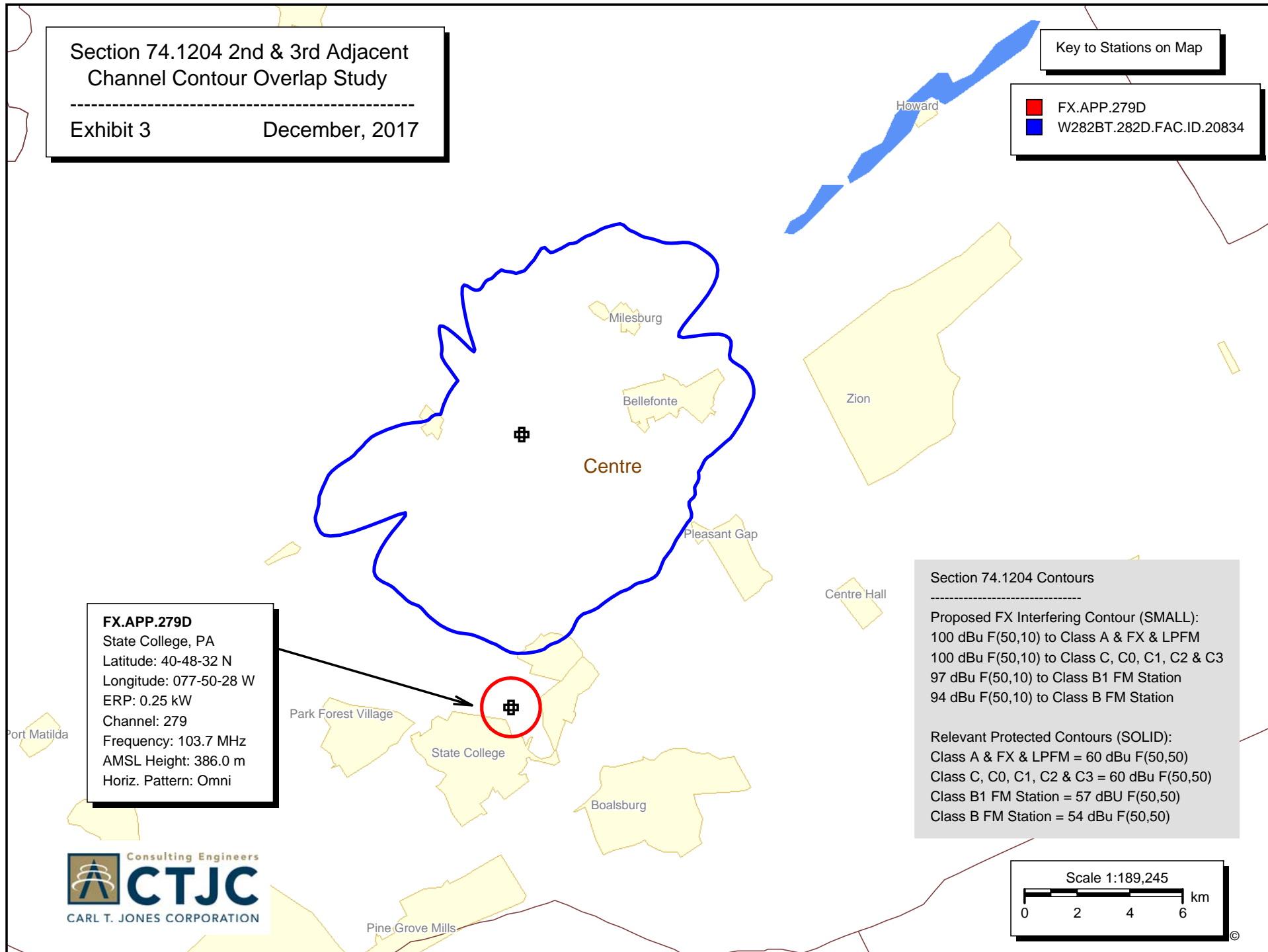
Section 74.1204 2nd & 3rd Adjacent
Channel Contour Overlap Study

Exhibit 3

December, 2017

Key to Stations on Map

- FX.APP.279D
- W282BT.282D.FAC.ID.20834



WQWK.AM.FX
State College, PA (Facility ID 48923)

ERP 250.00 WATTS

Maximum ERP *Interfering contour value ----->* **119** dBu
 0.25 kW *RCAGL (m)----->* **63** meters
 Antenna Type -----> **8**

Antenna Type 8 = **Nicom, BKG77, 2-bay, half-wave spaced**

Angle Below Horizontal (degrees)	Vertical Pattern (REL. FIELD)	WQWK.AM.FX ERP (kW)	WQWK.AM.FX ERP (dBk)	WQWK.AM.FX Free-Space Distance to interfering contour (meters)	Slant Distance (meters) *	Height of interfering contour above ground (feet)**	Proposed Interference within 30 ' of ground level?	Horizontal Distance (meters) ***	Horizontal Distance (feet) ***
0	1.000	0.2500	-6.021	124.2	N/A	206.7			407.3
5	0.988	0.2440	-6.125	122.7	618.4	171.6	No	122.2	400.9
10	0.952	0.2266	-6.448	118.2	310.4	139.4	No	116.4	381.9
15	0.881	0.1940	-7.121	109.4	208.3	113.8	No	105.7	346.6
20	0.791	0.1564	-8.057	98.2	157.6	96.5	No	92.3	302.8
25	0.686	0.1176	-9.294	85.2	127.5	88.6	No	77.2	253.3
30	0.577	0.0832	-10.797	71.6	107.8	89.2	No	62.0	203.5
35	0.463	0.0536	-12.709	57.5	94.0	98.5	No	47.1	154.5
40	0.354	0.0313	-15.041	44.0	83.9	114.0	No	33.7	110.5
45	0.256	0.0164	-17.856	31.8	76.2	133.0	No	22.5	73.7
50	0.174	0.0076	-21.210	21.6	70.4	152.4	No	13.9	45.6
55	0.110	0.0030	-25.193	13.7	65.8	170.0	No	7.8	25.7
60	0.061	0.0009	-30.314	7.6	62.2	185.2	No	3.8	12.4
65	0.028	0.0002	-37.077	3.5	59.5	196.4	No	1.5	4.8
70	0.007	0.0000	-49.119	0.9	57.4	204.0	No	0.3	1.0
75	0.004	0.0000	-53.979	0.5	55.8	205.1	No	0.1	0.4
80	0.008	0.0000	-47.959	1.0	54.7	203.5	No	0.2	0.6
85	0.008	0.0000	-47.959	1.0	54.1	203.4	No	0.1	0.3
90	0.009	0.0000	-46.936	1.1	53.9	203.0	No	0.0	0.0

* Slant distance from antenna center of radiation to location 30 feet (9.1 meters) above ground level at angle below horizontal.

** A negative number indicates that the interfering contour is predicted to reach ground level. If a negative number is present, the interfering contour reaches ground level at the "Horizontal Distance" described below.

*** Horizontal distance from tower base to interfering contour at the indicated height above ground level. If a negative height above ground level is indicated, this horizontal distance is the distance from the tower base to the interfering contour. This horizontal distance is only relevant if the proposed interference is predicted to occur within 30 feet of ground level.