

Channel Study

REFERENCE CH# 284D - 104.7 MHz, Pwr= 0.01 kW DA, HAAT= 63.5 M, COR= 341 M DISPLAY DATES
 41 39 44.0 N. Average Protected F(50-50)= 4.6 km DATA 08-05-13
 93 45 26.0 W. Standard Directional SEARCH 08-05-13

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
281C0 Ames	KLTI-FM	LIC	CN IA	335.5 155.4	29.36 BLH19861229KC	41 54 09.0 93 54 15.0	100.000 308	10.5 615	74.0 Saga Communications	14.2	-44.8*
284D Des Moines	1564023	APP DV	IA	0.0 0.0	0.00 BNPFT20030317GYN	41 39 44.0 93 45 26.0	0.010	14.1 341	4.5 Educational Media Foundati	-18.6*	-18.6*
283D West Des Moines	636881	APP C	IA	208.9 28.8	14.49 BNPFT20030314CAX	41 32 53.0 93 50 29.0	0.250 54	13.3 341	9.5 University Of Northern Iow	0.6	3.7
283D Des Moines	632421	APP DH	IA	127.8 308.0	18.75 BNPFT20030317AHO	41 33 31.0 93 34 45.0	0.250 107	15.9 367	11.1 Saga Communications Of Iow	2.2	6.3
286C3 Ames	KCCQ	LIC	CN IA	11.0 191.1	47.01 BLH19980203KC	42 04 38.0 93 38 54.0	25.000 100	4.1 403	39.3 Citicasters Licenses, Inc.	38.8	7.5
285L1 De Soto	KSDE-LP	LIC	IA	235.7 55.5	24.97 BLL20031112ACY	41 32 07.0 94 00 18.0	0.100 16	8.0 313	5.6 Iowa Department Of Transpo	16.3	18.0
285C2 Oskaloosa	KBOE-FM	LIC	CN IA	111.9 292.7	100.05 BLH19910919KB	41 19 15.0 92 38 44.0	50.000 150	76.4 391	50.7 Jomast Corporation	23.0	48.0

Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
 Contour distances are on direct line to and from reference station. Reference Zone=West Zone, Co to 3rd adjacent.
 All separation margins (if shown) include rounding
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside protected contour.

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60 dBu contour of third adjacent channel station KLTJ-FM, channel 28.1, Ames, Iowa. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for NEW:	10 watts
The proposed COR for NEW:	44 meters
KLTJ-FM F(50/50) contour at proposed site:	81.8 dBu
The F(50/10) contour of proposed NEW	121.8 dBu

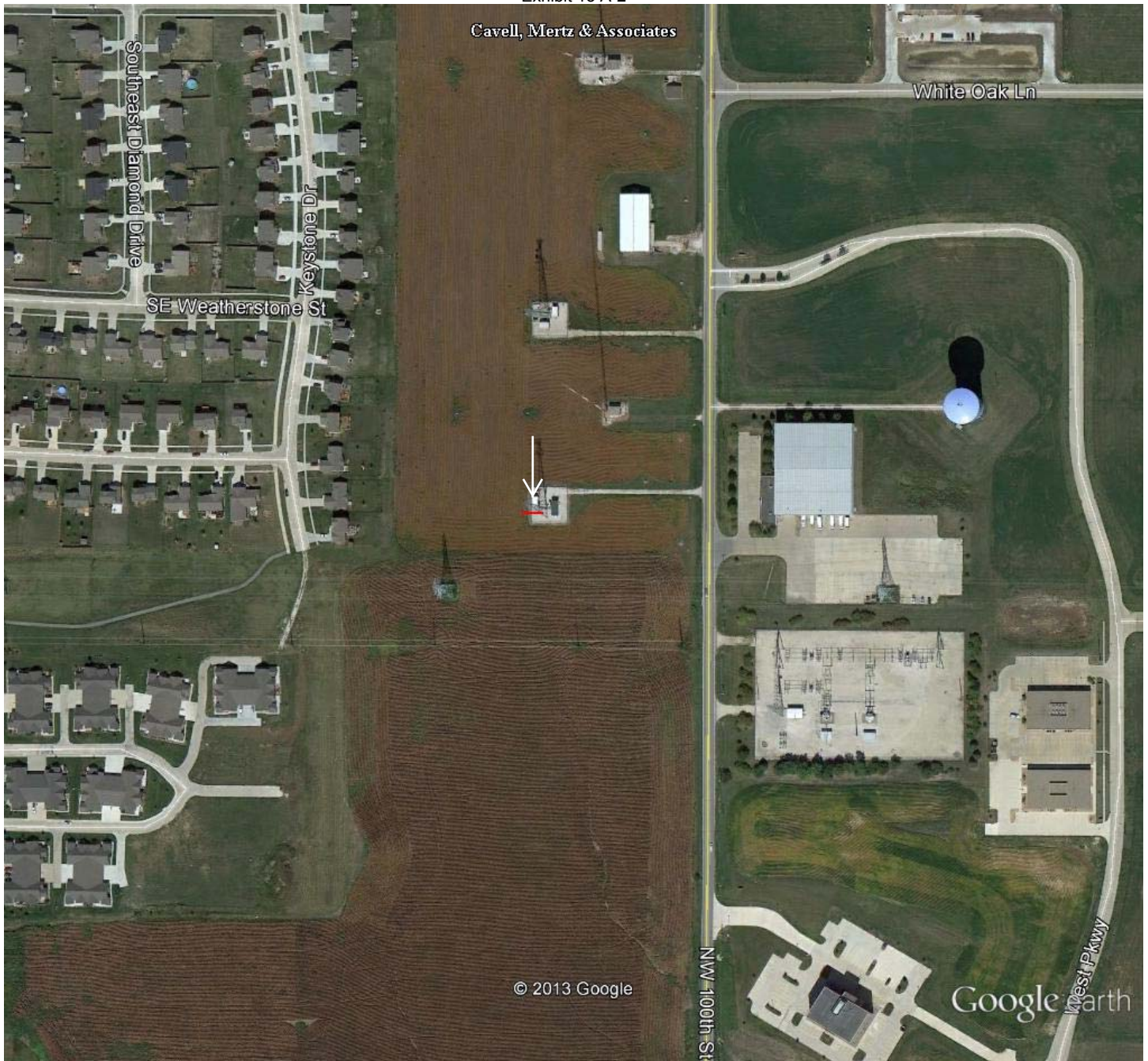
By taking into account the vertical elevation pattern for the CLFM/V antenna, it has been determined that the predicted interfering contour will not actually reach the ground (see Exhibit 13 A-1). The maximum distance to the interference contour is 18 meters. Please see Exhibit 13 A-2 for an aerial photo that shows there are no regularly occupied structures in the predicted interference area.

Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1
74.1204(d) Showing
NEW
DES MOINES, IA

ERP (kw): 0.01
Height of Antenna above Ground (m): 44
Translator's IX Contour: 121.8
Antenna Type: Scala CL-V

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.0100	18.0302	44.000
5	0.980	0.0096	17.6696	42.460
10	0.950	0.0090	17.1287	41.026
15	0.895	0.0080	16.1370	39.823
20	0.820	0.0067	14.7847	38.943
25	0.735	0.0054	13.2522	38.399
30	0.645	0.0042	11.6295	38.185
35	0.563	0.0032	10.1420	38.183
40	0.470	0.0022	8.4742	38.553
45	0.360	0.0013	6.4909	39.410
50	0.250	0.0006	4.5075	40.547
55	0.155	0.0002	2.7947	41.711
60	0.085	0.0001	1.5326	42.673
65	0.045	0.0000	0.8114	43.265
70	0.020	0.0000	0.3606	43.661
75	0.010	0.0000	0.1803	43.826
80	0.010	0.0000	0.1803	43.822
85	0.010	0.0000	0.1803	43.820
90	0.010	0.0000	0.1803	43.820



Google earth

feet 1000
meters 300



NAD27 COORDIANATES

41 39 44 N

093 45 26 W

THE RED LINE MEASURE EXTENDS 18M FROM THE BASE OF
THE TOWER.

Exhibit 13 B

NEW

BNPFT20030317GYN
Latitude: 41-39-44 N
Longitude: 093-45-26 W
ERP: 0.01 kW
Channel: 284
Frequency: 104.7 MHz
AMSL Height: 341.0 m
Elevation: 297.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

636881.A

BNPFT20030314CAX
Latitude: 41-32-53 N
Longitude: 093-50-29 W
ERP: 0.25 kW
Channel: 283
Frequency: 104.5 MHz
AMSL Height: 341.0 m
Elevation: 271.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

632421.A

BNPFT20030317AHO
Latitude: 41-33-31 N
Longitude: 093-34-45 W
ERP: 0.25 kW
Channel: 283
Frequency: 104.5 MHz
AMSL Height: 367.0 m
Elevation: 262.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

