

## **ENGINEERING EXHIBIT**

### **“Maximization” Application for Post-Transition Digital Television Station Construction Permit** prepared for

**Gray Television Licensee, Inc.**  
WOWT-DT Omaha, NE  
Facility ID 65528  
Ch. 22 1000 kW 418 m

*Gray Television Licensee, Inc. (“Gray”)* is the licensee of television station WOWT-TV, analog Channel 6 and digital Channel 22, Omaha, NE. The licensed digital facility employs an effective radiated power (“ERP”) of 1000 kW at 398 meters antenna height above average terrain (“HAAT”), with a side-mounted antenna. WOWT-DT will remain on its current digital Channel 22 for the post-transition period, as established in Appendix B of the Seventh Report and Order in MB Docket 87-278. The Appendix B parameters are the same as the currently licensed operation (1000 kW and 398 meters). *Gray* herein seeks a Construction Permit to expand the WOWT-DT post-transition Channel 22 digital facility to 1000 kW ERP and 418 meters antenna HAAT. The instant application is intended to be filed by June 20, 2008 in response to the FCC’s lifting of the August 3, 2004 “freeze” concerning expansion in service area.<sup>1</sup>

The proposed WOWT-DT Channel 22 antenna system, an ERI nondirectional model ATW30H3-ETO-22H, will be top-mounted in place of the existing analog Channel 6 antenna on the tower structure. Elliptical polarization is proposed (20 percent vertical polarization). The maximum horizontally polarized ERP is 1000 kW and the maximum vertically polarized ERP is 200 kW. The vertically polarized component will not exceed the horizontally polarized component at any azimuth.

The antenna will be installed on the existing WOWT-DT antenna supporting structure (FCC Antenna Structure Registration number 1026518). No change to the overall structure height will result from this proposal.

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<sup>1</sup>Public Notice “*Commission Lifts the Freeze On the Filing of Maximization Applications and Petitions for Digital Channel Substitutions, Effective Immediately*” DA 08-1213, released May 30, 2008.

A map is supplied as **Figure 1**, which depicts the standard predicted coverage contours. This map includes the boundaries of Omaha, WOWT-DT's principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 48 dBμ contour.

The proposed WOWT-DT facility's predicted service population provides a 100.7 percent match of the Appendix B facility, as detailed in the following table.

<b>Post-Transition Population Summary</b>		
Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	1,246,853	1,255,062
Not affected by terrain losses	1,242,733	1,251,653
Lost to all interference	94	141
Net DTV Service	<b>1,242,639</b>	<b>1,251,512</b>
Match of Appendix B	---	<b>100.71%</b>

A detailed interference study per OET Bulletin 69<sup>2</sup> shows that the proposal complies with the 0.5 percent limit of new interference caused to the Appendix B facilities and current post-transition authorizations of pertinent nearby stations. The interference study output report is provided as **Table 1**. Protection requirements towards authorized Class A stations are also satisfied.

The proposed 1000 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 418 meters currently permitted by §73.622(f)(8)(i). Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. The total area within the proposed WOWT-DT 41 dBμ contour is 36,503 square kilometers, which does not exceed the 36,940 square kilometers within the Appendix B contour area associated with station KMTV-DT (Ch. 45, 1000 kW at 426 m, Omaha, NE), located 0.5 km from WOWT-DT. Thus, the ERP specified herein is in compliance with §73.622(f)(5) of the Commission's Rules.

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<sup>2</sup>FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A standard cell size of 2 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission's implementation of OET-69 show excellent correlation.

The nearest FCC monitoring station is 206 km distant at Grand Island, NE. This exceeds the threshold minimum distances specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with “quiet” zones specified in §73.1030(a) and (b). There are no non-directional AM stations within 0.8 km and no directional AM stations within 3.2 kilometers of the site, based on information contained within the Commission’s database. The site location is beyond the border areas requiring international coordination.

### **Human Exposure to Radiofrequency Electromagnetic Field (Environmental)**

The proposed transmitting antenna’s installation will replace an existing top-mount antenna and involve no change in overall tower height. Thus, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission’s rules.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission’s OET Bulletin Number 65. Based on OET-65 equation (10), and considering 10 percent antenna relative field in downward elevations (pattern data shows less than 10 percent relative field at angles 20 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is  $2.6 \mu\text{W}/\text{cm}^2$ , which is 0.7 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal’s contribution is less than five percent.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC’s guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

## **Certification**

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.

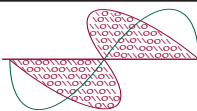
Joseph M. Davis, P.E.  
June 3, 2008

**Chesapeake RF Consultants, LLC**  
11993 Kahns Road  
Manassas, VA 20112  
703-650-9600

### List of Attachments

Figure 1	Proposed Coverage Contours
Figure 2	Coverage Contour Comparison
Table 1	OET Bulletin 69 Interference Study
Form 301	Saved Version of Engineering Sections from FCC Form at Time of Upload

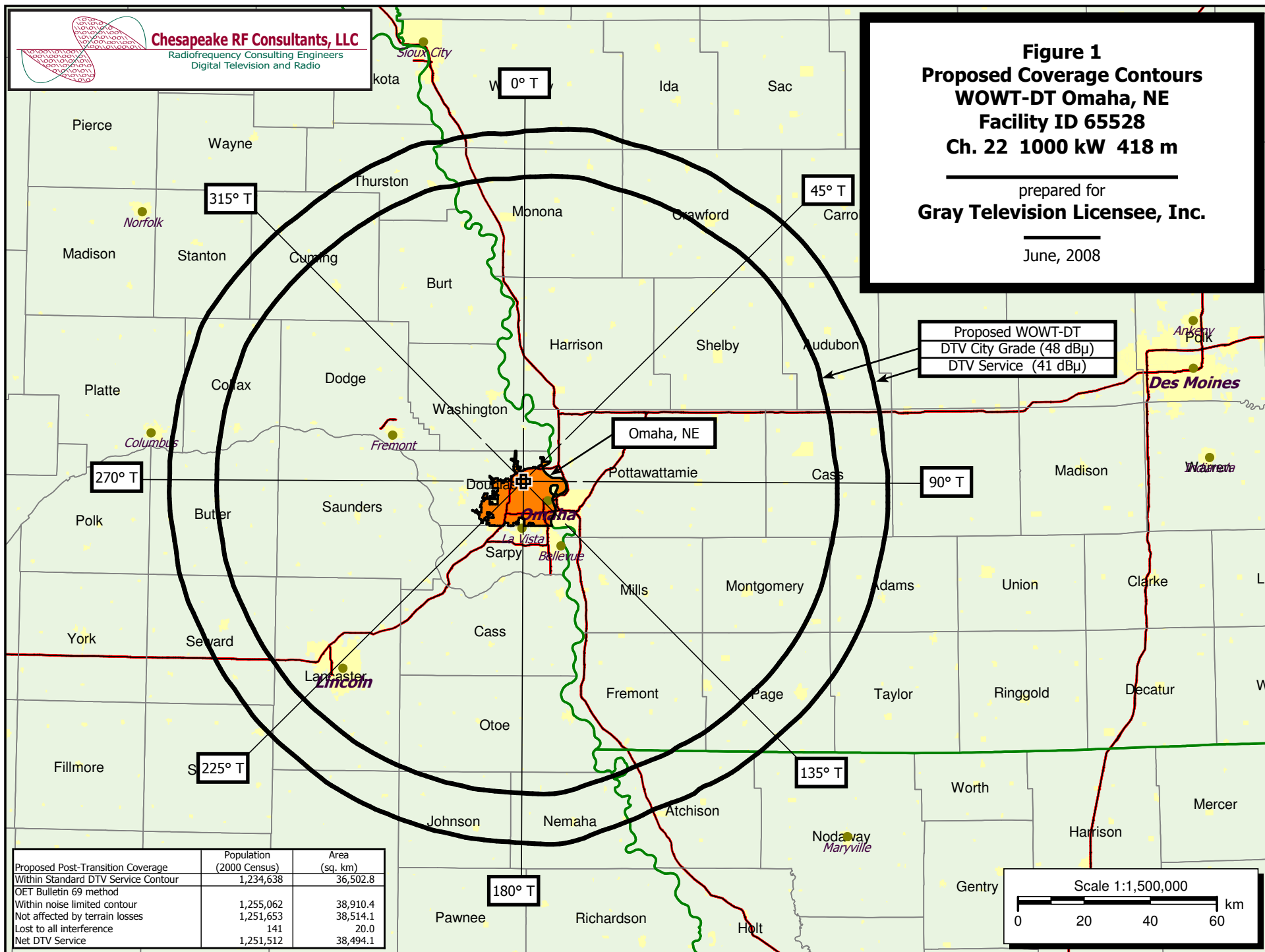
*This material was entered June 3, 2008 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.*

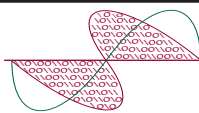


**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

**Figure 1**  
**Proposed Coverage Contours**  
**WOWT-DT Omaha, NE**  
**Facility ID 65528**  
**Ch. 22 1000 kW 418 m**

prepared for  
**Gray Television Licensee, Inc.**  
June, 2008



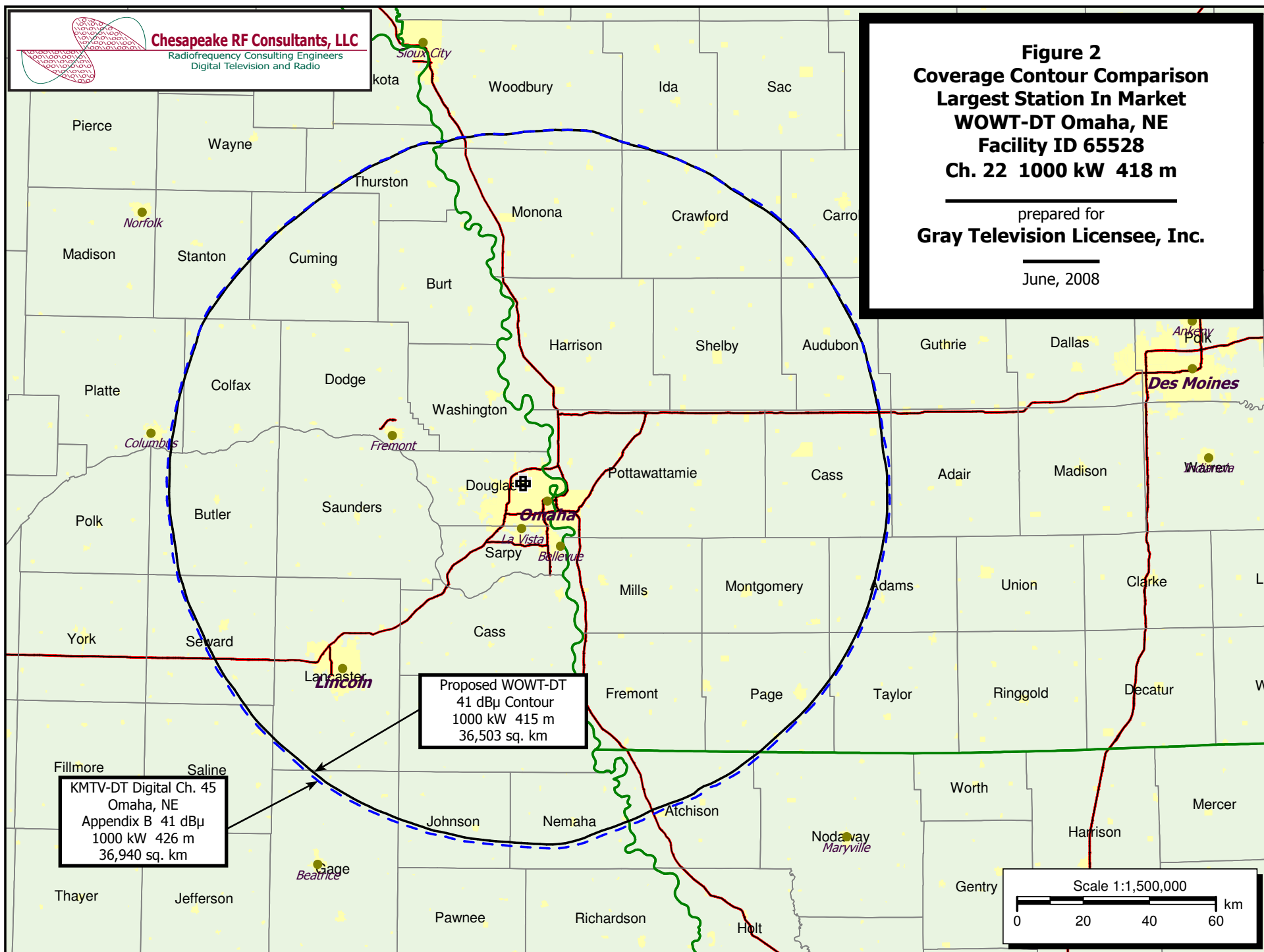


**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

**Figure 2**  
**Coverage Contour Comparison**  
**Largest Station In Market**  
**WOWT-DT Omaha, NE**  
**Facility ID 65528**  
**Ch. 22 1000 kW 418 m**

prepared for  
**Gray Television Licensee, Inc.**

June, 2008



**Table 1 WOWT-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 1 of 6)

TW Census data selected 2000  
Post Transition Data Base Selected /space/software/cdbs/pt\_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-03-2008 Time: 08:41:10

Record Selected for Analysis

WOWT-DT USERRECORD-01 OMAHA NE US  
Channel 22 ERP 1000. kW HAAT 418. m RCMSL 00761 m  
Latitude 041-18-40 Longitude 0096-01-37  
Status APP Zone 2 Border  
Last update Cutoff date Docket  
Comments  
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility does not meet maximum height/power limits  
Channel 22 ERP = 1000.00 HAAT = 418.

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	1000.000	391.7	105.4
45.0	1000.000	447.4	110.4
90.0	1000.000	439.8	109.8
135.0	1000.000	423.2	108.3
180.0	1000.000	429.1	108.8
225.0	1000.000	416.4	107.6
270.0	1000.000	403.4	106.5
315.0	1000.000	390.7	105.3

Evaluation toward Class A Stations

Station inside contour of Class A station  
KKAZ-CA 24 OMAHA NE BLTTA 20030402AFC

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

**Table 1 WOWT-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 2 of 6)

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
22	WOWT-DT	OMAHA NE	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
22	KWWF	WATERLOO IA	354.4	PLN	DTVPLN	-DTVP0800
22	KSNC	GREAT BEND KS	396.5	CP MOD	BMPCDT	-20070511ABB
22	KSNC	GREAT BEND KS	396.5	PLN	DTVPLN	-DTVP0805
23	KCWI-TV	AMES IA	208.6	PLN	DTVPLN	-DTVP0843
23	KCWI-TV	AMES IA	208.7	CP	BPCDT	-20080314ABC
24	KKAZ-CA	OMAHA NE	7.0	LIC	BLTTA	-20030402AFC

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
22	KWWF	WATERLOO IA	DTVPLN	-DTVP0800

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
22	WBUI	DECATUR IL	381.5	LIC	BLCDT	-20040521ADS
22	WBUI	DECATUR IL	381.5	PLN	DTVPLN	-DTVP0802
22	WUCW	MINNEAPOLIS MN	307.9	CP	BPCDT	-19991027ADG
22	WUCW	MINNEAPOLIS MN	307.9	PLN	DTVPLN	-DTVP0809
22	WOWT-TV	OMAHA NE	354.4	PLN	DTVPLN	-DTVP0815
22	WVCY-TV	MILWAUKEE WI	343.5	LIC	BLCDT	-20060619AAX
22	WVCY-TV	MILWAUKEE WI	343.4	PLN	DTVPLN	-DTVP0830
23	KCWI-TV	AMES IA	147.5	PLN	DTVPLN	-DTVP0843
23	KCWI-TV	AMES IA	147.5	CP	BPCDT	-20080314ABC
23	WQPT-TV	MOLINE IL	182.3	LIC	BLEDT	-20030702AAR
23	WQPT-TV	MOLINE IL	182.3	PLN	DTVPLN	-DTVP0846
22	WOWT-DT	OMAHA NE	354.4	APP	USERRECORD-01	

Total scenarios = 8

Result key: 1  
Scenario 1 Affected station 1  
Before Analysis

Results for: 22A IA WATERLOO DTVPLN DTVP0800 PLN  
HAAT 198.0 m, ATV ERP 80.9 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	455330	14517.4
not affected by terrain losses	453899	14332.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	750	48.3
lost to ATV IX only	750	48.3
lost to all IX	750	48.3

**Table 1 WOWT-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 3 of 6)

Potential Interfering Stations Included in above Scenario					1
22A MN MINNEAPOLIS	BPCDT	19991027ADG	CP		
22A WI MILWAUKEE	BLCDT	20060619AAX	LIC		
23A IA AMES	DTVPLN	DTVP0843	PLN		
22A NE OMAHA	DTVPLN	DTVP0815	PLN		
After Analysis					
Results for: 22A IA WATERLOO		DTVPLN	DTVP0800	PLN	
HAAT 198.0 m, ATV ERP 80.9 kW					
	POPULATION	AREA (sq km)			
within Noise Limited Contour	455330	14517.4			
not affected by terrain losses	453899	14332.2			
lost to NTSC IX	0	0.0			
lost to additional IX by ATV	750	48.3			
lost to ATV IX only	750	48.3			
lost to all IX	750	48.3			
Potential Interfering Stations Included in above Scenario					1
22A MN MINNEAPOLIS	BPCDT	19991027ADG	CP		
22A WI MILWAUKEE	BLCDT	20060619AAX	LIC		
23A IA AMES	DTVPLN	DTVP0843	PLN		
22A NE OMAHA	USERRECORD01		APP		
Percent new IX = 0.0000%					
Worst case new IX 0.0000% Scenario 1					

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#### Analysis of Interference to Affected Station 2

Analysis of current record				
Channel	Call	City/State	Application Ref. No.	
22	KSNC	GREAT BEND KS	BMPCDT	-20070511ABB

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
21	KDCK	DODGE CITY KS	140.2	LIC	BLEDT -20030423ABG
21	KDCK	DODGE CITY KS	140.2	PLN	DTVPLN -DTVP0763
22	WOWT-TV	OMAHA NE	396.5	PLN	DTVPLN -DTVP0815
22	KOKI-TV	TULSA OK	382.5	LIC	BLCDT -20021127AGL
22	KOKI-TV	TULSA OK	382.5	PLN	DTVPLN -DTVP0819
22	WOWT-DT	OMAHA NE	396.5	APP	USERRECORD-01

Proposal causes no interference

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#### Analysis of Interference to Affected Station 3

Analysis of current record				
Channel	Call	City/State	Application Ref. No.	
22	KSNC	GREAT BEND KS	DTVPLN	-DTVP0805

**Table 1 WOWT-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 4 of 6)

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
21	KDCK	DODGE CITY KS	140.2	LIC	BLEDT -20030423ABG
21	KDCK	DODGE CITY KS	140.2	PLN	DTVPLN -DTVP0763
22	WOWT-TV	OMAHA NE	396.5	PLN	DTVPLN -DTVP0815
22	KOKI-TV	TULSA OK	382.5	LIC	BLCDT -20021127AGL
22	KOKI-TV	TULSA OK	382.5	PLN	DTVPLN -DTVP0819
22	WOWT-DT	OMAHA NE	396.5	APP	USERRECORD-01

Proposal causes no interference

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#### Analysis of Interference to Affected Station 4

Analysis of current record				
Channel	Call	City/State	Application Ref. No.	
23	KCWI-TV	AMES IA	DTVPLN	-DTVP0843

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	KWWF	WATERLOO IA	147.5	PLN	DTVPLN -DTVP0800
22	WOWT-TV	OMAHA NE	208.6	PLN	DTVPLN -DTVP0815
23	WIFR	FREEPORT IL	370.4	CP	BPCDT -20080327AHN
23	WIFR	FREEPORT IL	370.4	PLN	DTVPLN -DTVP0845
23	WQPT-TV	MOLINE IL	275.2	LIC	BLEDT -20030702AAR
23	WQPT-TV	MOLINE IL	275.2	PLN	DTVPLN -DTVP0846
22	WOWT-DT	OMAHA NE	208.6	APP	USERRECORD-01

Proposal causes no interference

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#### Analysis of Interference to Affected Station 5

Analysis of current record				
Channel	Call	City/State	Application Ref. No.	
23	KCWI-TV	AMES IA	BPCDT	-20080314ABC

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	KWWF	WATERLOO IA	147.5	PLN	DTVPLN -DTVP0800
22	WOWT-TV	OMAHA NE	208.7	PLN	DTVPLN -DTVP0815
23	WIFR	FREEPORT IL	370.3	CP	BPCDT -20080327AHN
23	WIFR	FREEPORT IL	370.3	PLN	DTVPLN -DTVP0845
23	WQPT-TV	MOLINE IL	275.1	LIC	BLEDT -20030702AAR
23	WQPT-TV	MOLINE IL	275.1	PLN	DTVPLN -DTVP0846
22	WOWT-DT	OMAHA NE	208.7	APP	USERRECORD-01

Proposal causes no interference

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#### Analysis of Interference to Affected Station 6

Analysis of current record



**Table 1 WOWT-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 5 of 6)

Channel	Call	City/State	Application Ref. No.
24	KKAZ-CA	OMAHA NE	BLTTA -20030402AFC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
17	KYNE-TV	OMAHA NE	2.1	LIC	BLEDT -20030409AAV
17	KYNE-TV	OMAHA NE	2.1	PLN	DTVPLN -DTVP0608
20	KETV	OMAHA NE	6.7	LIC	BLCDDT -20041222AED
20	KETV	OMAHA NE	6.7	PLN	DTVPLN -DTVP0734
22	WOWT-TV	OMAHA NE	7.0	LIC	BLCDDT -20050706AAA
22	WOWT-TV	OMAHA NE	7.0	PLN	DTVPLN -DTVP0815
24	KYIN	MASON CITY IA	349.7	LIC	BLET -19860923KJ
24	KCTV	KANSAS CITY MO	270.6	CP MOD	BMPCDDT -20040715ADD
24	KCTV	KANSAS CITY MO	270.6	PLN	DTVPLN -DTVP0889
24	K24GO	BLAIR NE	33.0	LIC	BLTT -20070118ABH
24	K49FP	COLUMBUS-FREMONT NE	78.8	LIC	BLTTL -19950807JE
24	KCSD-TV	STOUX FALLS SD	263.4	LIC	BLEDT -20040112ACM
24	KCSD-TV	STOUX FALLS SD	263.4	PLN	DTVPLN -DTVP0902
28	KSIN-TV	STOUX CITY IA	142.3	LIC	BLEDT -20050726AMC
28	KSIN-TV	STOUX CITY IA	142.3	PLN	DTVPLN -DTVP1034
22	WOWT-DT	OMAHA NE	7.0	APP	USERRECORD-01

Total scenarios = 2

Result key: 9  
Scenario 1 Affected station 6  
Before Analysis

Results for: 24N NE OMAHA	BLTTA	20030402AFC	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	497688	625.0	
not affected by terrain losses	497688	625.0	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	29792	48.1	
lost to all IX	29792	48.1	

Potential Interfering Stations Included in above Scenario 1

20A NE OMAHA	BLCDDT	20041222AED	LIC
22A NE OMAHA	DTVPLN	DTVP0815	PLN

After Analysis

Results for: 24N NE OMAHA	BLTTA	20030402AFC	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	497688	625.0	
not affected by terrain losses	497688	625.0	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	29792	48.1	
lost to all IX	29792	48.1	

Potential Interfering Stations Included in above Scenario 1

20A NE OMAHA	BLCDDT	20041222AED	LIC
22A NE OMAHA	USERRECORD01		APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

**Table 1 WOWT-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 6 of 6)

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Analysis of Interference to Affected Station 7

Analysis of current record  
Channel 22 Call WOWT-DT City/State OMAHA NE Application Ref. No. USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	KWWF	WATERLOO IA	354.4	PLN	DTVPLN -DTVP0800
22	KSNC	GREAT BEND KS	396.5	CP MOD	BMPCDDT -20070511ABB
22	KSNC	GREAT BEND KS	396.5	PLN	DTVPLN -DTVP0805
23	KCWI-TV	AMES IA	208.6	PLN	DTVPLN -DTVP0843
23	KCWI-TV	AMES IA	208.7	CP	BPCDDT -20080314ABC

Total scenarios = 1

Result key: 11  
Scenario 1 Affected station 7  
Before Analysis

Results for: 22A NE OMAHA	USERRECORD01	APP
HAAT 418.0 m, ATV ERP 1000.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1255062	38910.4
not affected by terrain losses	1251653	38514.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	141	20.0
lost to ATV IX only	141	20.0
lost to all IX	141	20.0

Potential Interfering Stations Included in above Scenario 1

22A IA WATERLOO	DTVPLN	DTVP0800	PLN
22A KS GREAT BEND	DTVPLN	DTVP0805	PLN

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

**SECTION III-D - DTV Engineering****Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.**

**Pre-Transition Certification Checklist:** An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to change pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

**Post-Transition Expedited Processing.** An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:

(a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622.	<input checked="" type="radio"/> Yes <input type="radio"/> No
(b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input type="radio"/> No
(c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input type="radio"/> No
(d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
(e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Applicant must <b>submit the Exhibit</b> called for in Item 13.	<input checked="" type="radio"/> Yes <input type="radio"/> No
3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.	<input checked="" type="radio"/> Yes <input type="radio"/> No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable.	<input checked="" type="radio"/> Yes <input type="radio"/> No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	<input checked="" type="radio"/> Yes <input type="radio"/> No

**SECTION III-D - DTV Engineering****TECHNICAL SPECIFICATIONS**

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

**TECH BOX**

1.	Channel Number: DTV 22 Analog TV, if any 6
2.	Zone: <input type="radio"/> I <input checked="" type="radio"/> II <input type="radio"/> III
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 41 Minutes 18 Seconds 40 <input checked="" type="radio"/> North <input type="radio"/> South  Longitude: Degrees 96 Minutes 01 Seconds 37 <input checked="" type="radio"/> West <input type="radio"/> East
4.	Antenna Structure Registration Number: 1026518 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5.	Antenna Location Site Elevation Above Mean Sea Level: 363.5 meters
6.	Overall Tower Height Above Ground Level: 409 meters
7.	Height of Radiation Center Above Ground Level: 397.5 meters
8.	Height of Radiation Center Above Average Terrain : 418 meters
9.	Maximum Effective Radiated Power (average power): 1000 kW
10.	Antenna Specifications:

a. Manufacturer ERI Model ATW30H3-ETO-22H	
b. Electrical Beam Tilt: 0.75 degrees <input type="checkbox"/> Not Applicable	
c. Mechanical Beam Tilt: degrees toward azimuth degrees True <input checked="" type="checkbox"/> Not Applicable Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).	[Exhibit 42]
d. Polarization: <input type="radio"/> Horizontal <input type="radio"/> Circular <input checked="" type="radio"/> Elliptical	
e. Directional Antenna Relative Field Values: <input checked="" type="checkbox"/> Not applicable (Nondirectional)	
[For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.] [Relative Field Values]	
If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. <b>Exhibit required.</b>	
[Exhibit 43]	
11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if <b>Certification Checklist</b> Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?	<input checked="" type="radio"/> Yes <input type="radio"/> No
If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.	
12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if <b>Certification Checklist</b> item 3 is answered "No.")	[Exhibit 45]
13. <b>Environmental Protection Act. Submit in an Exhibit</b> the following: If <b>Certification Checklist</b> Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.  By checking "Yes" to <b>Certification Checklist</b> Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.  If <b>Certification Checklist</b> Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R Section 1.1311.	[Exhibit 46]
<b>PREPARERS CERTIFICATION ON SECTION III MUST BE COMPLETED AND SIGNED.</b>	

### SECTION III - PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name JOSEPH M. DAVIS, P.E.	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 6/3/2008	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 11993 KAHNS ROAD		
City MANASSAS	State or Country (if foreign address) VA	Zip Code 20112 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).