

ENGINEERING STATEMENT  
REQUEST FOR LICENSE TO COVER THE  
OUTSTANDING CONSTRUCTION PERMIT  
FCC FILE NO. BMPCDT-20070125ACQ  
ON BEHALF OF  
NEXSTAR BROADCASTING, INC.  
KLST-DT, SAN ANGELO, TEXAS  
CHANNEL 11 18.8 KW ERP 434.2 METERS HAAT

MARCH 2009

COHEN, DIPPELL AND EVERIST, P.C.  
CONSULTING ENGINEERS  
RADIO AND TELEVISION  
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington            )  
  ) ss  
District of Columbia         )


Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

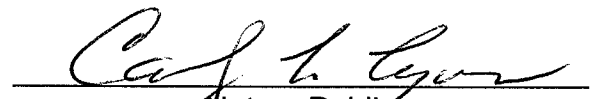
That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

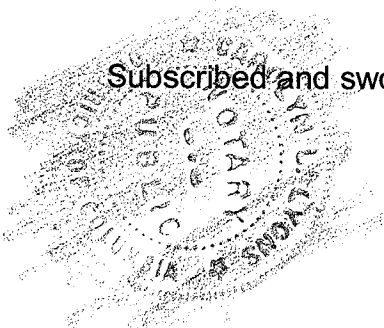
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

  
Donald G. Everist  
District of Columbia  
Professional Engineer  
Registration No. 5714

Subscribed and sworn to before me this 13<sup>th</sup> day of March, 2009.

  
Notary Public

My Commission Expires: 2/28/2013



COHEN, DIPPELL AND EVERIST, P. C.

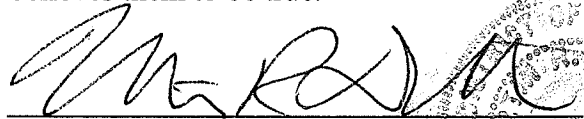
City of Washington                    )  
  ) ss  
District of Columbia                )

Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the Pennsylvania State University, a Registered Professional Engineer in the District of Columbia, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

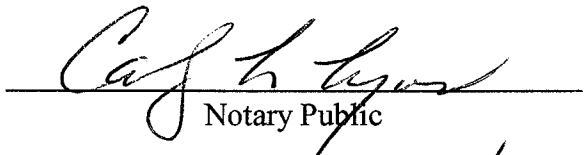
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

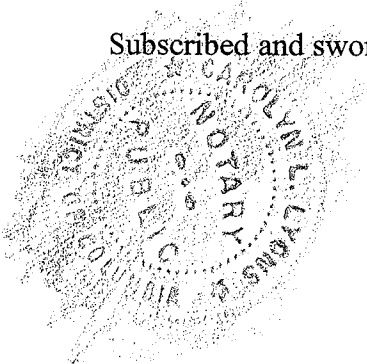


Martin R. Doczkat  
District of Columbia  
Professional Engineer  
Registration No. PE905122

Subscribed and sworn to before me this 13<sup>th</sup> day of March, 2009.

  
Notary Public

My Commission Expires: 2/28/2013



This engineering statement has been prepared on behalf of Nexstar Broadcasting, Inc., licensee of KLST(TV), San Angelo, Texas. The purpose of this engineering statement is to accompany its request for license to cover its outstanding construction permit (FCC File No. BMPCDT-20070125ACQ) for digital television ("DTV") facilities as built<sup>1</sup> and to supplement those data required in FCC Form 302, Section III.

KLST(TV) operates on NTSC Television Channel 8 (+) with a maximum visual horizontal effective radiated power ("ERP") of 316 kW non-directional and a height above average terrain ("HAAT") of 442 meters. KLST(TV) has been allocated DTV Channel 11 in the Final DTV Table of Allotments<sup>2</sup> and is authorized to construct DTV facilities of 18.8 kW non-directional (horizontal polarization) at a HAAT of 434.2 meters in its outstanding construction permit (FCC File No. BMPCDT-20070125ACQ). KLST-DT requests a license herein to operate with its DTV facilities constructed pursuant to its outstanding construction permit on its existing antenna structure. The antenna radiation center of the constructed facilities differs slightly from the antenna radiation center authorized in the outstanding construction permit. The constructed antenna radiation center is 2.7 meters below that authorized, which is in accordance with Section 73.1690 of the FCC Rules.

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<sup>1</sup>As provided herein the center of radiation is 2.7 meters lower than that authorized.

<sup>2</sup>"In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket 87-268, Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order (FCC 08-72) Released March 6, 2008, Final DTV Table of Allotments, Appendix B.

The DTV antenna has been top-mounted on the existing tower having a total overall structure height above ground of 444.2 meters (1457.4 feet). The existing transmitter site is located 3.3 miles southeast of Eola, Texas.

The difference in vertical length of the previously top-mounted analog antenna and the requested top-mounted DTV antenna prompted a notification of the reduced overall height of the antenna structure at the Federal Aviation Administration ("FAA") from 457.2 meters to 444.2 meters (FAA Study No. 2009-ASW-1254-OE). The antenna structure registration database will be updated accordingly once approval of the notification is received by the FAA. No other changes are requested.

The antenna structure registration number of the existing tower is 1048460. The geographic coordinates of the existing tower are:

North Latitude: 31° 22' 01"

West Longitude: 100° 02' 48"

NAD-27

#### Equipment Data

Antenna: Dielectric, Type TW-7B11-R (or equivalent) top-mounted horizontally polarized antenna with 0.9° electrical beam tilt. The technical information for this antenna is included as Exhibit E-1.

#### Power Data

Transmitter power output	3.37 kW	5.28 dBk
Dielectric, EIA/DCA 6-1/8", 75 ohm-length 457.5 meters (1501 ft)	79.6%	0.99 dB

Input power to the antenna	2.69 kW	4.29 dBk
Antenna power gain, Main Lobe	7.0	8.45 dB
Effective Radiated Power, Maximum	18.8 kW	12.74 dBk

Elevation Data  
(also shown on Exhibit E-2)

Vertical dimension of Channel 11 top-mounted antenna	15.1 meters 49.7 feet
Overall height above ground of the proposed antenna structure (including beacon)	444.2 meters 1457.4 feet
Center of radiation of Channel 11 antenna above ground	436.1 meters 1430.8 feet
Elevation of site above mean sea level	556.5 meters 1825.8 feet
Center of radiation of Channel 11 antenna above mean sea level	992.6 meters 3256.6 feet
Overall height above mean sea level of proposed tower (including beacon)	1000.7 meters 3283.1 feet
Antenna height above average terrain	434.2 meters

NOTE: Slight height differences result due to conversion to/from metric.

Special Operation Condition

Nexstar acknowledges that the grant of this DTV license is subject to the special operation condition specified in the outstanding construction permit. Therefore, Nexstar certifies that it has made a good faith effort to identify and notify health care facilities (e.g.,

hospitals, nursing homes, see 47 CFR 15.242(a)(1)) within the KLST-DT service area potentially affected by these authorized DTV operations. During this pre-broadcast period, Nexstar provided all notified entities with relevant technical details of its authorized operation of KLST-DT, such as DTV channel, targeted on-air date, effective radiated power, antenna location, and antenna height. Documentation of the notifications and contacts made has been placed in the station's public inspection file. During this pre-broadcast period and for up to twenty (20) days after commencing operations, should Nexstar become aware of any instances of medical devices malfunctioning or that such that devices are likely to malfunction due to the KLST-DT operations, it shall cooperate with the health care facility so that it is afforded a reasonable opportunity to resolve the interference problem.

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-1

ANTENNA MANUFACTURER DATA

KLST-DT, SAN ANGELO, TEXAS



Proposal #: **C-01537-1**  
 Call Letters: **KLST-DT**

Antenna Type: **TW-7B11-R**  
 Location: **San Angelo, TX**

Channel: **11 DTV**

Electrical Specifications		Value		Remarks		
		Ratio	dBd			
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	7.0	8.45			
	Vpol					
RMS Gain at Horizontal over Halfwave Dipole	Hpol	6.7	8.26			
	Vpol					
Peak Directional Gain over Halfwave Dipole	Hpol					
	Vpol					
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol					
	Vpol					
Circularity		+/- 0.8 dB				
Axial Ratio		dB				
Beam Tilt		0.90 deg				
Average Power	DTV	30 kW	14.77 dBk			
Antenna Input:	T/L	6 1/8 in	75.0 ohm	Type:	EIA/DCA	
Maximum Antenna Input VSWR				Notes:		
		Channel 1.08 : 1				
Patterns	Azimuth	TW-O				
	Elevation	16W070090	16W070090-90			
Mechanical Specifications		Metric	English		Preliminary	1 in ice
Height with Lightning Protector	H4	15.1 m	49.7 ft			
Height Less Lightning Protector	H2	13.9 m	45.7 ft	TIA/EIA-222-F.		
Height of Center of Radiation	H3	7.0 m	24.2 ft			
Basic Wind Speed	V	128.7 km/h	80 mi/h	69.5 mi/h		
Force Coeff. x Projected Area	CaAc	5.0 m²	53.6 ft²	Above base flange		69.4 ft²
Moment Arm	D1	7.5 m	24.7 ft	Above base flange		26.3 ft
Force Coeff. x Projected Area	CaAc	m²	ft²			
Moment Arm	D3	m	ft			
Pole Bury Length	D2	m	ft			
Weight	W	4.4 t	9,800 lbs			11,100 lbs
Radome						
Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.						

**NOTE:**

Prepared By : **SWB** Approved By : **JLS**  
 Original Date : **12-Jun-07** **Revision: 1** **Rev. Date: 26-Jun-07** **SWB**

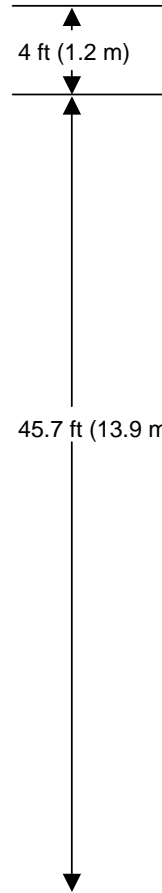
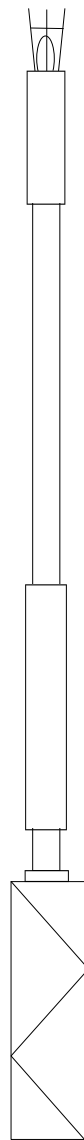
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Proposal #: **C-01537-1**  
Call Letters: **KLST-DT**

Antenna Type: **TW-7B11-R**  
Location: **San Angelo, TX**

Channel: **11 DTV**



**Mechanical Specifications**

**TIA/EIA-222-F. @ 80 mi/h (128.7 km/h )**

CaAc = 53.6 ft<sup>2</sup>(5 m<sup>2</sup>)

D1 = 24.7 ft(7.53 m)

W = 9800 lbs(4.4 t)

TW-7B11-R  
Channel: D11

SWB-070612-4

Not to Scale

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Proposal Number	<b>C-01537</b>	Revision:	<b>1</b>
Date	<b>26-Jun-07</b>		
Call Letters	<b>KLST-DT</b>	Channel	<b>11</b>
Location	<b>San Angelo, TX</b>		
Customer			
Antenna Type	<b>TW-7B11-R</b>		

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>7.00 ( 8.45 dB )</b>	Beam Tilt	<b>0.90 deg</b>
RMS Gain at Horizontal	<b>6.70 ( 8.26 dB )</b>	Frequency	<b>201.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>16W070090</b>



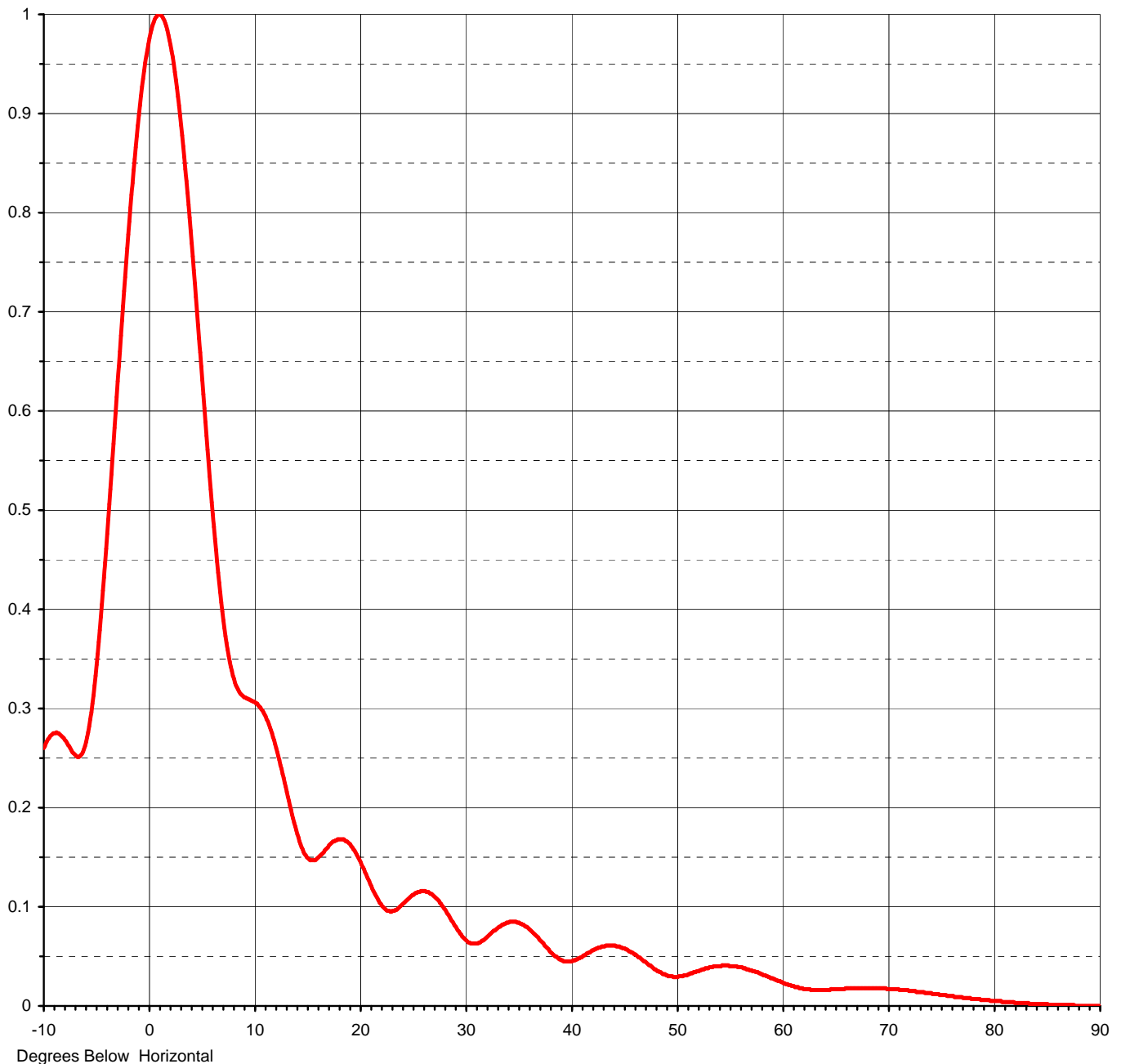
Degrees Below Horizontal



Proposal Number	<b>C-01537</b>	Revision:	<b>1</b>
Date	<b>26-Jun-07</b>		
Call Letters	<b>KLST-DT</b>	Channel	<b>11</b>
Location	<b>San Angelo, TX</b>		
Customer			
Antenna Type	<b>TW-7B11-R</b>		

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>7.00 ( 8.45 dB )</b>	Beam Tilt	<b>0.90 deg</b>
RMS Gain at Horizontal	<b>6.70 ( 8.26 dB )</b>	Frequency	<b>201.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>16W070090-90</b>



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Proposal Number **C-01537** Revision: **1**  
Date **26-Jun-07**  
Call Letters **KLST-DT** Channel **11**  
Location **San Angelo, TX**  
Customer  
Antenna Type **TW-7B11-R**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **16W070090-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.260	2.4	0.942	10.6	0.301	30.5	0.063	51.0	0.031	71.5	0.016
-9.5	0.270	2.6	0.926	10.8	0.298	31.0	0.063	51.5	0.033	72.0	0.015
-9.0	0.275	2.8	0.908	11.0	0.294	31.5	0.065	52.0	0.035	72.5	0.015
-8.5	0.274	3.0	0.888	11.5	0.281	32.0	0.069	52.5	0.037	73.0	0.014
-8.0	0.268	3.2	0.867	12.0	0.264	32.5	0.074	53.0	0.038	73.5	0.013
-7.5	0.260	3.4	0.844	12.5	0.243	33.0	0.078	53.5	0.040	74.0	0.013
-7.0	0.253	3.6	0.820	13.0	0.221	33.5	0.082	54.0	0.040	74.5	0.012
-6.5	0.253	3.8	0.795	13.5	0.198	34.0	0.084	54.5	0.041	75.0	0.011
-6.0	0.266	4.0	0.769	14.0	0.177	34.5	0.085	55.0	0.040	75.5	0.010
-5.5	0.296	4.2	0.742	14.5	0.160	35.0	0.084	55.5	0.040	76.0	0.010
-5.0	0.344	4.4	0.715	15.0	0.150	35.5	0.082	56.0	0.039	76.5	0.009
-4.5	0.405	4.6	0.687	15.5	0.147	36.0	0.078	56.5	0.038	77.0	0.008
-4.0	0.476	4.8	0.659	16.0	0.149	36.5	0.073	57.0	0.036	77.5	0.008
-3.5	0.552	5.0	0.631	16.5	0.154	37.0	0.067	57.5	0.034	78.0	0.007
-3.0	0.630	5.2	0.603	17.0	0.160	37.5	0.061	58.0	0.032	78.5	0.007
-2.8	0.660	5.4	0.575	17.5	0.166	38.0	0.055	58.5	0.030	79.0	0.006
-2.6	0.691	5.6	0.548	18.0	0.168	38.5	0.050	59.0	0.028	79.5	0.006
-2.4	0.721	5.8	0.521	18.5	0.168	39.0	0.047	59.5	0.026	80.0	0.005
-2.2	0.750	6.0	0.496	19.0	0.164	39.5	0.045	60.0	0.024	80.5	0.005
-2.0	0.778	6.2	0.471	19.5	0.157	40.0	0.045	60.5	0.022	81.0	0.004
-1.8	0.805	6.4	0.448	20.0	0.147	40.5	0.047	61.0	0.020	81.5	0.004
-1.6	0.830	6.6	0.427	20.5	0.135	41.0	0.049	61.5	0.019	82.0	0.003
-1.4	0.854	6.8	0.407	21.0	0.123	41.5	0.053	62.0	0.017	82.5	0.003
-1.2	0.877	7.0	0.389	21.5	0.112	42.0	0.056	62.5	0.017	83.0	0.003
-1.0	0.898	7.2	0.373	22.0	0.103	42.5	0.058	63.0	0.016	83.5	0.002
-0.8	0.918	7.4	0.359	22.5	0.097	43.0	0.060	63.5	0.016	84.0	0.002
-0.6	0.935	7.6	0.347	23.0	0.095	43.5	0.061	64.0	0.016	84.5	0.002
-0.4	0.951	7.8	0.338	23.5	0.097	44.0	0.061	64.5	0.017	85.0	0.002
-0.2	0.964	8.0	0.330	24.0	0.102	44.5	0.060	65.0	0.017	85.5	0.001
0.0	0.976	8.2	0.323	24.5	0.107	45.0	0.058	65.5	0.017	86.0	0.001
0.2	0.985	8.4	0.319	25.0	0.112	45.5	0.055	66.0	0.018	86.5	0.001
0.4	0.992	8.6	0.315	25.5	0.115	46.0	0.052	66.5	0.018	87.0	0.001
0.6	0.997	8.8	0.313	26.0	0.116	46.5	0.049	67.0	0.018	87.5	0.001
0.8	1.000	9.0	0.311	26.5	0.115	47.0	0.045	67.5	0.018	88.0	0.000
1.0	1.000	9.2	0.310	27.0	0.111	47.5	0.041	68.0	0.018	88.5	0.000
1.2	0.998	9.4	0.309	27.5	0.106	48.0	0.037	68.5	0.018	89.0	0.000
1.4	0.994	9.6	0.308	28.0	0.098	48.5	0.034	69.0	0.018	89.5	0.000
1.6	0.988	9.8	0.308	28.5	0.090	49.0	0.031	69.5	0.018	90.0	0.000
1.8	0.979	10.0	0.307	29.0	0.081	49.5	0.030	70.0	0.017		
2.0	0.969	10.2	0.305	29.5	0.073	50.0	0.029	70.5	0.017		
2.2	0.957	10.4	0.303	30.0	0.067	50.5	0.030	71.0	0.016		

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ABOVE GROUND

ABOVE MEAN SEA LEVEL

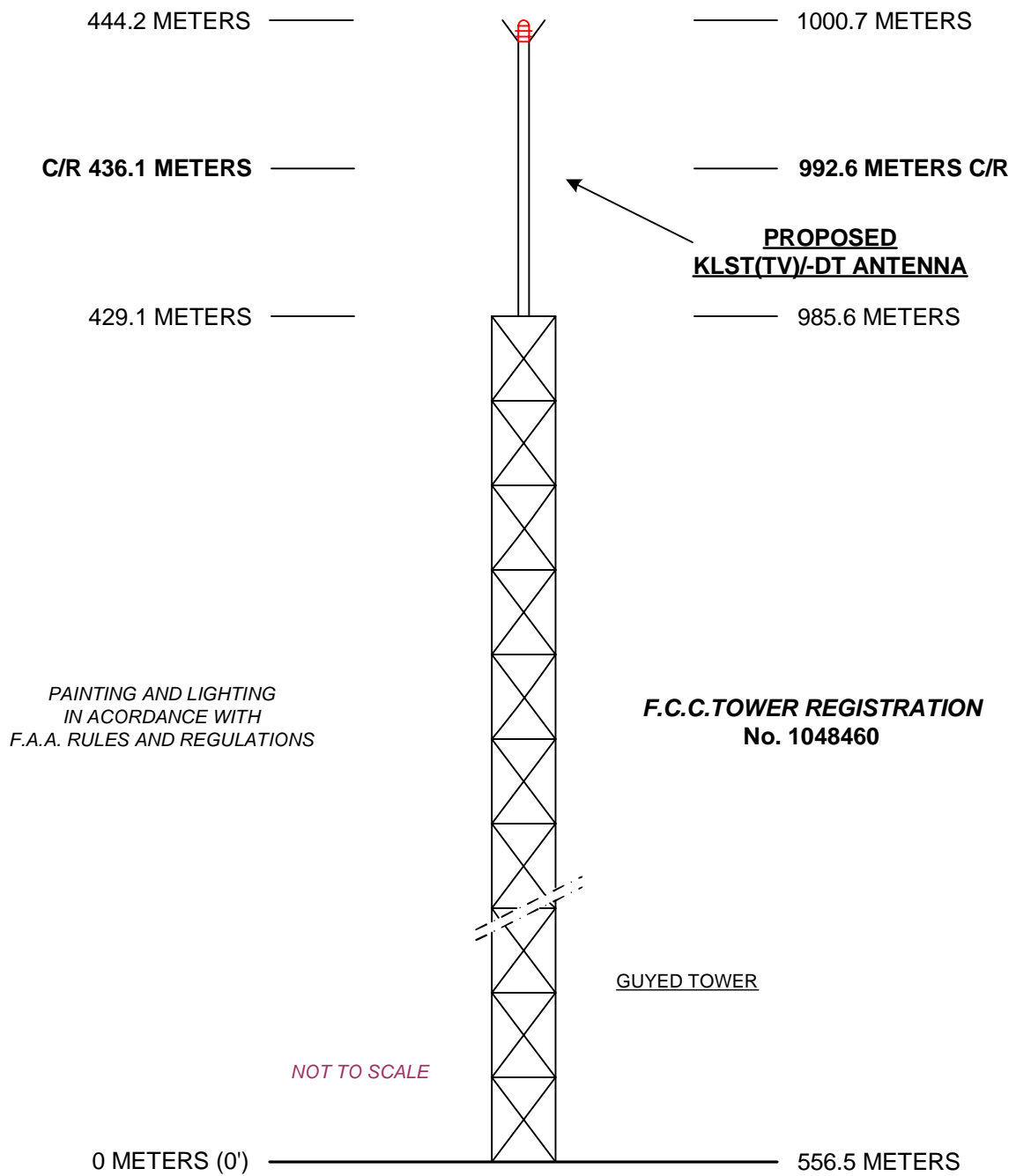


EXHIBIT E-2  
VERTICAL SKETCH  
FOR THE PROPOSED DTV OPERATION OF  
**KLST-DT, SAN ANGELO, TEXAS**  
MARCH 2009

### Section III - 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 _____			
2. Operating Constants			
Transmitter power output (average power at input to transmission line, after any filter attached to the transmitter, if used)		Transmission line power loss	
kW		dBk	
dB		dB	
Antenna Input power	Maximum antenna power gain	Effective radiated power (average power)	
dBk	dB	kW	dBk
3. Antenna Data			
Manufacturer		Model	

**NOTE:** In addition to the information called for in the Certification Checklist, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

#### CERTIFICATION

4. <b>Main Studio Location.</b> The main studio location complies with 47 C.F.R. Section 73.1125.	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Explanation in Exhibit No.
5. <b>Constructed Facility.</b> The facility was constructed as authorized in the underlying construction permit or complies with 47 C.F.R. Section 73.1690.	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Explanation in Exhibit No.
6. <b>Special Operating Conditions.</b> The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit.	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Explanation in Exhibit No.
An exhibit may be required. Review the underlying construction permit.		Exhibit No.
7. <b>Transmitter.</b> The transmitter complies with 47 C.F.R. Section 73.1660.	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Explanation in Exhibit No.

**PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.**

---

**APPLICATION FILED PURSUANT TO 47 C.F.R. SECTIONS 73.1675(c) or 73.1690(c).**

Only applicants filing this application pursuant to 47 C.F.R. Sections 73.1675(c) or 73.1690(c) must complete the following

---

8. **Changing transmitter power output.** Is this application being filed to authorize a change in transmitter power output caused by the replacement of an omnidirectional antenna with another omnidirectional antenna or an alteration of the transmission line system? See 47 C.F.R. Sections 73.1690(c)(1) and (c)(10). ☐ Yes ☐ No

9. **Replacing a directional antenna.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(3) to replace a directional antenna with another directional antenna? ☐ Yes ☐ No

If "Yes" to the above, the applicant certifies the following:

- a. **Pattern of Directional Antenna.** The proposed theoretical antenna pattern complies with 47 C.F.R. Section 73.1690(c)(3). **Exhibit is required.** ☐ Yes ☐ No 

See Explanation in Exhibit No.

Exhibit No.

10. **Use a formerly licensed main facility as an auxiliary facility.** Is this application being filed pursuant to 47 C.F.R. Section 73.1675(c)(1) to request authorization to use a formerly licensed main facility as an auxiliary facility and/or change the ERP of the proposed auxiliary facility? ☐ Yes ☐ No

If "Yes" to the above, the applicant certifies the following:

- a. **Auxiliary antenna service area.** The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a). **Exhibit is required.** ☐ Yes ☐ No 

See Explanation in Exhibit No.

- b. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.*, the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). ☐ Yes ☐ No 

See Explanation in Exhibit No.

By checking "Yes" above, 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.

11. **Change the license status.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(9) to change the license status from commercial to noncommercial or from noncommercial to commercial? ☐ Yes ☐ No

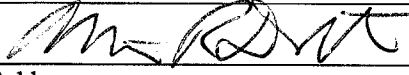
Exhibit No.

If "Yes" to the above, submit an exhibit providing full particulars. For applications changing license status from commercial to noncommercial, include Section II of FCC Form 340 as an exhibit to this application.

**PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.**

**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 Martin R. Doczkat		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 		Date March 13, 2009	
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, Suite 1100			
City Washington		State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111		E-Mail Address (if available) cde@attglobal.net	

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).