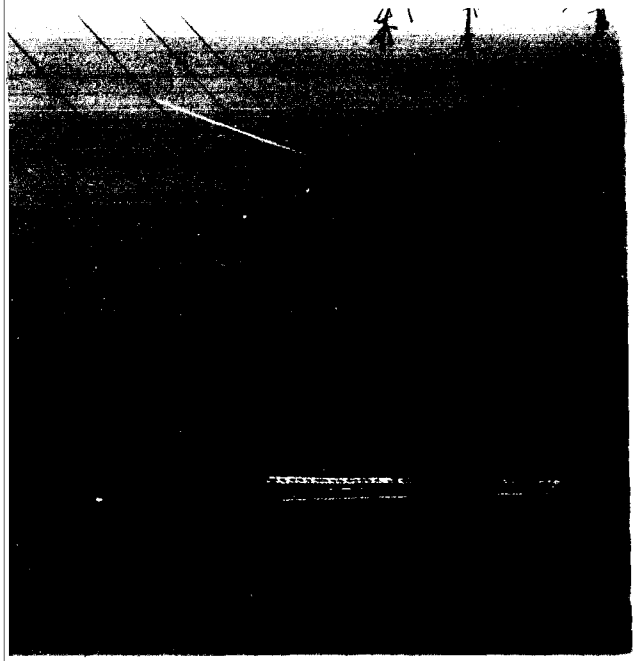

ORGANIZATION OF ANALYSIS

1. The following rigorous computer analysis was performed where the tower was analyzed with the use of a high capacity proprietary program, on a Digital VAX-11/730 computer, as beam-column on elastic supports. All secondary effects such as external moments produced by the guys at each level and those produced by beam-column action were taken into consideration. In addition, thermal gradients, wind escalation, wind thrusts on the tower and appurtenances, gravity loads, as well as drag and lift wind forces on the guys, were solved simultaneously by the computer program using the finite element method. The tower was analyzed with the wind direction normal to a tower face (Wind A); normal to a tower apex (Wind B); and parallel to a tower face (Wind C).

a) Case 3. Tower in its assumed configuration under a 75 mph basic wind velocity and no ice, in accordance with EIA/TIA Standard 222-E specifications and the following antenna and transmission line loading:

Antenna	Elev. (Ft.)	Transmission Line
Yagi	29 ft.	7/8" Heliax
Whip	98 ft.	7/8" Heliax
Whip	119 ft.	7/8" Heliax
3-Bay Communication	180 ft.	1-5/8" Heliax
8-Element	190 ft.	1-5/8" Heliax
4' Dish w/Radome	230 ft.	1-5/8" Heliax
Whip	289 ft.	7/8" Heliax
Whip	363 ft.	7/8" Heliax
Whip	375 ft.	7/8" Heliax
Whip	393 ft.	7/8" Heliax
Whip	402 ft.	7/8" Heliax
Whip	403 ft.	7/8" Heliax

Whip	486 ft.	7/8" Heliax
Whip	501 ft.	7/8" Heliax
Whip	511 ft.	7/8" Heliax
Whip	523 ft.	7/8" Heliax
Whip	537 ft.	7/8" Heliax
Long Whip	549 ft. to 629 ft.	1-5/8" Heliax
2-Bay FM	645 ft.	3" Heliax
Whip	650 ft.	7/8" Heliax
	Top	1" Conduit
Alan Dick Superturnstile Channel 2	Top	(1) 3-1/8" Rigid Coax

The type, size, location and number of antennas were taken from sketch of tower prepared by Gerhold, Cross & Etzel, Professional Land Surveyors, Dated 1/20/92. The existing transmission lines sizes and types were assumed. All the assumed 7/8" and 1-5/8" Heliax transmission lines were considered in three bundles. The type of Channel 2 antenna and its transmission line were assumed.

b) Case 4. Same as in Case 3 above, except all the assumed 7/8" and 1-5/8" Heliax transmission lines were considered in one bundle up the tower.

2. For all computer runs the results are given as follow:

a) Tower loads, kips.

b) Guy weights, kips.

c) Guy unstressed length, feet.

d) Guy forces and reactions, kips.

e) Spring constants for wind and normal to wind directions.

f) Column buckling evaluation parameter for the tower shaft between guy levels.

g) Tower deflections with the tower bending in two directions (if unsymmetrical loads exist) at each tower shaft panel point.

h) Tower reactions, moments and vertical loads for the wind and normal to wind directions.

i) Shears and forces (tension or compression) in all tower structural members.

3. Allowable Member Loads & Guy Cable Safety Factors:

FINDINGS & EVALUATION

A structural study of the assumed tower geometry,

b) The deflection at the top of the tower is too excessive compared to the rest of the tower. This results in uneven distribution of bending moments in the tower and large overstresses in the tower legs.

c) The column buckling evaluation parameter for the tower shaft between guy levels (PHI) is over 1.5 which indicates possible column instability.

3. It is my engineering opinion that, due to the large overstresses calculated in the tower legs, the subject tower is not adequately designed to support the Channel 2 antenna and its transmission lines as described in the Organization of Analysis Section of this Report. Therefore, I strongly recommend that the subject tower must not be used for the installation of the Channel 2 Antenna.

4. The Findings presented in this section are based on the assumed tower geometry, member sizes and properties, guy cable sizes, and the antenna and transmission line loading described herein.

5. The tower height, span lengths, guy anchor distances and the antenna loading were taken from the sketch of tower prepared by Gerhold, Cross & Etzel, Professional Land Surveyors, dated 1/20/92.

No ice loading was considered in this analysis. Any significant icing of the tower and its guy cables, in addition to wind loading specified for this geographical area, will put the tower and surrounding area in serious danger.

The Computer Analysis Results show the safety factors of the guys and the deflection curve for the tower under Cases 3 & 4. The Computer Analysis Results also list the maximum leg and diagonal loads per tower section.

REPLACEMENT TOWER

The engineering estimate to build a new tower 666 ft. in height on the same site to support the Channel 2 antenna, in accordance with EIA/TIA Standard 222-E, is $350,000.00.

Due to the nature of this Engineering Investigation, I disclaim any liability arising from original design, geometry, material, fabrication and erection deficiencies or the "As Built" condition of the tower. Furthermore, the information and conclusions contained in this Report were determined by application of the current "state-of-the-art" engineering and analysis procedures and formulae, and Vlissides Enterprises, Inc. (Matthew J. Vlissides, P.E.) assumes no obligations to revise any of the information or conclusions contained in this Report in the event that such engineering and analysis procedures and formulae are hereafter modified or revised. In addition, under no circumstances will Vlissides Enterprises, Inc. (Matthew J. Vlissides, P.E.) have any obligations, responsibility or liability whatsoever for or on account of consequential or incidental damages sustained by any person, firm or organization as a result of any information or conclusions contained in this Report.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

2/24/92

Matthew J. Vlissides, P.E.
Engineering Consultant

SECTION B

PART I

COMPUTER INPUT CALCULATIONS

/COMTRAN/ GUYED TOWER ANALYSIS
JOB: 666 Ft. Guyed Tower - REVISED ANALYSIS - 75 Mph Basic Vel., EIA 222E

3 SIDES
7 SPANS
33 SECTIONS
MISC 5.00% WEIGHT
MISC 2.00% AREA
BASE PER ELEVATION = 1.00
GUST RESPONSE FACTOR (Gh) = 1.04
BASIC WIND VELOCITY = 75.00
WIND ANGLE = 0
THIS RUN USED VERSION EIA 222-E

SPAN DATA

SPAN	LENGTH (FT)	WIND PRES (PSF)	WEIGHT (KIPS)	WIND LOAD (KIPS)	AVERAGE I (INFT)**2	SYST TYPE	TORS STIFF (KIP-FT)
1	93.500	16.928	5.098	2.058	24.209	N	104.230
2	95.167	22.655	5.155	2.792	24.209	N	104.230
3	95.167	26.295	5.155	3.241	24.209	N	104.230
4	95.167	28.975	5.155	3.571	24.209	N	104.230
5	94.500	31.138	5.119	3.811	24.209	N	104.230
6	95.167	32.978	4.563	4.065	19.556	N	104.230
7	94.432	34.591	4.294	4.231	17.891	N	104.230

SECTION DATA

SEC	PANEL HT (FT)	FACE WDTH (FT)	LENGTH (FT)	SHAPE FACTOR CF	SOL-RATIO e	ROUND S/F Rr
1	5.000	4.000	18.500	2.568	0.209	0.592
2	5.000	4.000	20.000	2.583	0.204	0.591
3	5.000	4.000	20.000	2.583	0.204	0.591
4	5.000	4.000	20.000	2.583	0.204	0.591
5	5.000	4.000	20.000	2.583	0.204	0.591
6	5.000	4.000	20.000	2.583	0.204	0.591
7	5.000	4.000	20.000	2.583	0.204	0.591
8	5.000	4.000	20.000	2.583	0.204	0.591
9	5.000	4.000	20.000	2.583	0.204	0.591
10	5.000	4.000	20.000	2.583	0.204	0.591
11	5.000	4.000	20.000	2.583	0.204	0.591
12	5.000	4.000	20.000	2.583	0.204	0.591
13	5.000	4.000	20.000	2.583	0.204	0.591
14	5.000	4.000	20.000	2.583	0.204	0.591
15	5.000	4.000	20.000	2.583	0.204	0.591
16	5.000	4.000	20.000	2.583	0.204	0.591
17	5.000	4.000	20.000	2.583	0.204	0.591
18	5.000	4.000	20.000	2.583	0.204	0.591
19	5.000	4.000	20.000	2.583	0.204	0.591
20	5.000	4.000	20.000	2.583	0.204	0.591

MEMBER DATA: LEGS

SEC	LEG TYPE	DIMENSIONS (IN)	XSECT (SQIN)	I (IN**4)	POUNDS PER FT	SQFT PER FT
1	PIPE	3.500x 0.300	3.016	3.894	10.263	0.173
2	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
3	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
4	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
5	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
6	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
7	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
8	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
9	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
10	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
11	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
12	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
13	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
14	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
15	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
16	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
17	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
18	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
19	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
20	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
21	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
22	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
23	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172
24	PIPE	3.500x 0.300	3.016	3.894	10.263	0.172

MEMBER DATA: DIAGONALS

SEC	DIAG TYPE	DIMENSIONS (IN)	POUNDS PER FT	SQFT PER FT	PCS
1	ROD	0.625	1.044	0.031	24
2	ROD	0.625	1.044	0.031	24
3	ROD	0.625	1.044	0.031	24
4	ROD	0.625	1.044	0.031	24
5	ROD	0.625	1.044	0.031	24
6	ROD	0.625	1.044	0.031	24
7	ROD	0.625	1.044	0.031	24
8	ROD	0.625	1.044	0.031	24
9	ROD	0.625	1.044	0.031	24
10	ROD	0.625	1.044	0.031	24
11	ROD	0.625	1.044	0.031	24
12	ROD	0.625	1.044	0.031	24
13	ROD	0.625	1.044	0.031	24
14	ROD	0.625	1.044	0.031	24
15	ROD	0.625	1.044	0.031	24
16	ROD	0.625	1.044	0.031	24
17	ROD	0.625	1.044	0.031	24
18	ROD	0.625	1.044	0.031	24
19	ROD	0.625	1.044	0.031	24
20	ROD	0.625	1.044	0.031	24
21	ROD	0.625	1.044	0.031	24
22	ROD	0.625	1.044	0.031	24
23	ROD	0.625	1.044	0.031	24
24	ROD	0.625	1.044	0.031	24
25	ROD	0.625	1.044	0.031	24
26	ROD	0.625	1.044	0.031	24
27	ROD	0.625	1.044	0.031	24
28	ROD	0.625	1.044	0.031	24
29	ROD	0.625	1.044	0.031	24
30	ROD	0.625	1.044	0.031	24
31	ROD	0.625	1.044	0.031	24
32	ROD	0.625	1.044	0.031	24
33	ROD	0.625	1.044	0.031	30

MEMBER DATA: HORIZONTALS

SEC	HORIZ TYPE	DIMENSIONS (IN)	POUNDS PER FT	SQFT PER FT	PCS
1	ROD	1.000	2.673	0.049	15
2	ROD	1.000	2.673	0.049	15
3	ROD	1.000	2.673	0.049	15
4	ROD	1.000	2.673	0.049	15
5	ROD	1.000	2.673	0.049	15
6	ROD	1.000	2.673	0.049	15
7	ROD	1.000	2.673	0.049	15
8	ROD	1.000	2.673	0.049	15
9	ROD	1.000	2.673	0.049	15
10	ROD	1.000	2.673	0.049	15
11	ROD	1.000	2.673	0.049	15
12	ROD	1.000	2.673	0.049	15
13	ROD	1.000	2.673	0.049	15
14	ROD	1.000	2.673	0.049	15
15	ROD	1.000	2.673	0.049	15
16	ROD	1.000	2.673	0.049	15
17	ROD	1.000	2.673	0.049	15
18	ROD	1.000	2.673	0.049	15
19	ROD	1.000	2.673	0.049	15
20	ROD	1.000	2.673	0.049	15
21	ROD	1.000	2.673	0.049	15
22	ROD	1.000	2.673	0.049	15
23	ROD	1.000	2.673	0.049	15
24	ROD	1.000	2.673	0.049	15
25	ROD	1.000	2.673	0.049	15
26	ROD	1.000	2.673	0.049	15
27	ROD	1.000	2.673	0.049	15
28	ROD	1.000	2.673	0.049	15
29	ROD	1.000	2.673	0.049	15
30	ROD	1.000	2.673	0.049	15
31	ROD	1.000	2.673	0.049	15
32	ROD	1.000	2.673	0.049	15
33	ROD	1.000	2.673	0.049	18

/TPRFP/ TRANSMISSION LINE PREPARATION
JOB: 666 Ft. Guyed Tower - 75 Mph Basic Velocity, EIA 222F, REVISED ANALYSIS

23 TRANSMISSION LINES
7 SPANS
BASIC WIND VELOCITY: 75.000
ICE RADIUS : 0.000
GUST RESPONCE (GH) : 1.041
BASEPIER ELEVATION : 1.000
THIS RUN USED EIA 222-E

TRANSMISSION LINE DATA

NO	DESCRIPTION	LBS/FT	SQFT/FT	EXPOSURE (%)	ELEVATION (FT) LOWER	UPPER
1	LADDER	5.00	0.2250	100.00	10.00	664.00
2	3-1/8" R.C.	2.60	0.3125	100.00	10.00	664.00
3	1" COND.	1.68	0.1315	100.00	10.00	664.00
4	7/8" HELIAX	0.54	0.1110	100.00	10.00	650.00
5	3" HELIAX	1.80	0.3030	100.00	10.00	638.00
6	1-5/8" HELIAX	1.04	0.1980	100.00	10.00	580.00
7	7/8" HELIAX	0.54	0.1110	100.00	10.00	537.00
8	7/8" HELIAX	0.54	0.1110	75.00	10.00	523.00
9	7/8" HELIAX	0.54	0.1110	75.00	10.00	511.00
10	7/8" HELIAX	0.54	0.1110	75.00	10.00	501.00
11	7/8" HELIAX	0.54	0.1110	50.00	10.00	486.00
12	7/8" HELIAX	0.54	0.1110	50.00	10.00	403.00
13	7/8" HELIAX	0.54	0.1110	50.00	10.00	402.00
14	7/8" HELIAX	0.54	0.1110	25.00	10.00	393.00
15	7/8" HELIAX	0.54	0.1110	25.00	10.00	375.00
16	7/8" HELIAX	0.54	0.1110	25.00	10.00	363.00
17	7/8" HELIAX	0.54	0.1110	25.00	10.00	289.00
18	1-5/8" HELIAX	1.04	0.1980	25.00	10.00	230.00
19	1-5/8" HELIAX	1.04	0.1980	25.00	10.00	190.00
20	1-5/8" HELIAX	1.04	0.1980	0.00	10.00	170.00
21	7/8" HELIAX	0.54	0.1110	0.00	10.00	119.00
22	7/8" HELIAX	0.54	0.1110	0.00	10.00	98.00
23	7/8" HELIAX	0.54	0.1110	0.00	10.00	30.00

SPAN DATA

SPAN	LENGTH (FT)	WIND PRES (PSF)	XMSN WT (KIPS)	WIND LOAD (KIPS)
1	93.500	16.928	1.915	2.853
2	95.167	22.655	2.064	4.351
3	95.167	26.295	1.814	4.858
4	95.167	28.975	1.711	5.204
5	94.500	31.138	1.484	5.088
6	95.167	32.978	1.308	4.590
7	94.432	34.591	1.057	3.302

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/TPREP/ TRANSMISSION LINE PREPARATION
JOB: 666' Guyed Tower - 75 Mph Basic Vel., EIA 222E, XMSN LINES IN ONE BUNDLE

23 TRANSMISSION LINES
7 SPANS
BASIC WIND VELOCITY: 75.000
ICE RADIUS : 0.000
GUST RESPONCE (GH) : 1.041
BASEPIER ELEVATION : 1.000
THIS RUN USED EIA 222-E

TRANSMISSION LINE DATA

NO	DESCRIPTION	LBS/FT	SQFT/FT	EXPOSURE (%)	ELEVATION (FT) LOWER	UPPER
1	LADDER	5.00	0.2250	100.00	10.00	664.00
2	3-1/8" R.C.	2.60	0.3125	100.00	10.00	664.00
3	1" COND.	1.68	0.1315	100.00	10.00	664.00
4	7/8" HELIAX	0.54	0.1110	100.00	10.00	650.00
5	3" HELIAX	1.80	0.3030	100.00	10.00	638.00
6	1-5/8" HELIAX	1.04	0.1980	100.00	10.00	580.00
7	7/8" HELIAX	0.54	0.1110	75.00	10.00	537.00
8	7/8" HELIAX	0.54	0.1110	75.00	10.00	523.00
9	7/8" HELIAX	0.54	0.1110	50.00	10.00	511.00
10	7/8" HELIAX	0.54	0.1110	50.00	10.00	501.00
11	7/8" HELIAX	0.54	0.1110	25.00	10.00	486.00
12	7/8" HELIAX	0.54	0.1110	25.00	10.00	403.00
13	7/8" HELIAX	0.54	0.1110	25.00	10.00	402.00
14	7/8" HELIAX	0.54	0.1110	25.00	10.00	393.00
15	7/8" HELIAX	0.54	0.1110	25.00	10.00	375.00
16	7/8" HELIAX	0.54	0.1110	25.00	10.00	363.00
17	7/8" HELIAX	0.54	0.1110	0.00	10.00	289.00
18	1-5/8" HELIAX	1.04	0.1980	0.00	10.00	230.00
19	1-5/8" HELIAX	1.04	0.1980	0.00	10.00	190.00
20	1-5/8" HELIAX	1.04	0.1980	0.00	10.00	170.00
21	7/8" HELIAX	0.54	0.1110	0.00	10.00	119.00
22	7/8" HELIAX	0.54	0.1110	0.00	10.00	98.00
23	7/8" HELIAX	0.54	0.1110	0.00	10.00	30.00

666' Guyed Tower - 75 Mph Basic Vel., EIA 222E, XMSN LINES IN ONE BUNDLE

SPAN DATA

SPAN	LENGTH (FT)	WIND PRES (PSF)	XMSN WT (KIPS)	WIND LOAD (KIPS)
1	93.500	16.928	1.915	2.438
2	95.167	22.655	2.064	3.719
3	95.167	26.295	1.814	4.317
4	95.167	28.975	1.711	4.741
5	94.500	31.138	1.484	4.720
6	95.167	32.978	1.308	4.461
7	94.432	34.591	1.057	3.302

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/OMNIDAT/ REMAINING TOWER INPUT DATA
JOB: 666 Ft. Guyed Tower - REVISED ANALYSIS - 75 Mph Basic Vel., EIA 222F

2 CARD DATA: BASIC INFORMATION

7 GUY LEVELS
HINGED BASE
0.000 INCH RADIAL ICE ON GUYS
AMBIENT TEMPERATURE = 30.0 DEG F
INTERMEDIATE LOADS ARE CONSIDERED
NO INSULATORS ARE CONSIDERED

3 CARD DATA: GUY LEVEL INFORMATION

LVL	# GUYS AT LVL	AVERAGE WIND VELOCITY (MI/HR)	CONCENTRATED LOADS (KIPS) WEIGHT	WIND LOAD
1	3	81.200	0.00	0.00
2	3	87.900	0.00	0.00
3	3	92.600	0.00	0.00
4	3	96.200	0.00	0.00
5	3	99.200	0.00	0.00
6	3	101.700	0.00	0.00
7	3	103.900	0.00	0.00

LVL	MOMENTS (KIP-FT) WINDWARD DIRECTION			NORMAL DIRECTION			TORQUES (KIP-FT) WINDWARD DIRECTION		
	A	B	C	A	B	C	A	B	C
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

666 Ft. Guyed Tower - REVISED ANALYSIS - 75 Mph Basic Vel., EIA 222E

4 CARD DATA: GUY AND LEVER ARM ANGLES

LVL	GUY #	ANGLE GUY MAKES W/WIND (DEG) WIND A	WIND B	WIND C	ANGLE LEVER ARM MAKES W/WIND (DEG) WIND A	WIND B	WIND C
1	ALL	60.00	0.00	30.00	LEVER ARM ANGLE INFO NOT REQD		
2	ALL	60.00	0.00	30.00	LEVER ARM ANGLE INFO NOT REQD		
3	ALL	60.00	0.00	30.00	LEVER ARM ANGLE INFO NOT REQD		
4	ALL	60.00	0.00	30.00	LEVER ARM ANGLE INFO NOT REQD		
5	ALL	60.00	0.00	30.00	LEVER ARM ANGLE INFO NOT REQD		
6	ALL	60.00	0.00	30.00	LEVER ARM ANGLE INFO NOT REQD		
7	ALL	60.00	0.00	30.00	LEVER ARM ANGLE INFO NOT REQD		

666 Ft. Guyed Tower - REVISED ANALYSIS - 75 Mph Basic Vel., EIA 222E

5 CARD DATA: INTERMEDIATE LOAD INFORMATION

NO	ELEV (FT)	CONCENTRATED LOADS (KIPS) WEIGHT	WIND LOAD
1	29.0	0.10	0.08
2	98.0	0.10	0.09
3	119.0	0.10	0.09
4	160.0	0.10	0.09
5	170.0	0.10	0.09
6	180.0	0.10	0.09
7	190.0	0.10	0.25
8	230.0	0.20	0.30
9	289.0	0.10	0.14
10	363.0	0.10	0.15
11	375.0	0.10	0.15
12	393.0	0.10	0.15
13	402.0	0.10	0.16
14	403.0	0.10	0.16
15	486.0	0.10	0.16
16	501.0	0.10	0.16
17	511.0	0.10	0.16
18	523.0	0.10	0.17
19	537.0	0.10	0.17
20	549.0	0.15	0.24
21	569.0	0.15	0.24
22	589.0	0.15	0.24
23	609.0	0.15	0.24
24	629.0	0.15	0.24
25	638.0	0.15	0.20
26	648.0	0.15	0.20
27	650.0	0.10	0.18

NO	MOMENTS (KIP-FT) WINDWARD DIRECTION A	B	C	NORMAL DIRECTION A	B	C	TORQUES (KIP-FT) WINDWARD DIRECTION A	B	C
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6 CARD DATA: GUY CABLE INFORMATION

LVL	GUY #	DISTANCE (FT) HORIZ	VERT	TENS (KIPS)	STRAND TYPE	UNIT WT (LB/FT)	DIAM (IN)	AE (KIPS)	BS (KIPS)	LEVER ARM (FT)
1	ALL	260.00	103.50	5.00	EHS7	0.8130	0.6250	4700.	42.40	2.500
2	ALL	260.00	198.50	5.00	EHS7	0.8130	0.6250	4700.	42.40	2.500
3	ALL	260.00	294.00	6.00	EHS19	1.1550	0.7500	6720.	58.30	2.500
4	ALL	400.00	393.50	4.00	EHS7	0.8130	0.6250	4700.	42.40	2.500
5	ALL	400.00	488.00	6.00	EHS19	1.1550	0.7500	6720.	58.30	2.500
6	ALL	400.00	583.00	6.00	EHS19	1.1550	0.7500	6720.	58.30	2.500
7	ALL	400.00	678.00	12.00	EHS19	2.0730	1.0000	11940.	104.50	2.500

9 CARD DATA: PULL-OFF INFORMATION

WEIGHT (KIPS)	WIND LOAD (KIPS)	MOMENT. (KIP-FT)	TORQUES (KIP-FT) WIND A	WIND B	WIND C
17.00	8.90	393.60	0.00	0.00	0.00

10 CARD DATA: PANEL INFORMATION

SPAN	PANEL HEIGHT (FT) TOP	BOTTOM	UNIFORM	# UNIF PANELS
1	5.000	3.500	5.000	17
2	5.084	5.083	5.000	17
3	5.084	5.083	5.000	17
4	5.084	5.083	5.000	17
5	4.750	4.750	5.000	17
6	5.084	5.083	5.000	17
7	4.716	4.716	5.000	17

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