

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

September 25, 2008

Steven L. Levine
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-152-080819** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 126 Old Colchester Road, Waterford, Connecticut.

Dear Mr. Levine:

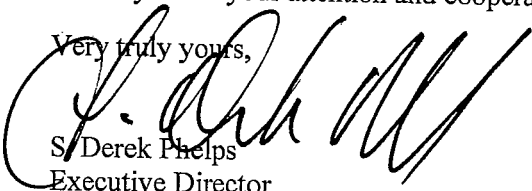
The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated August 19, 2008, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

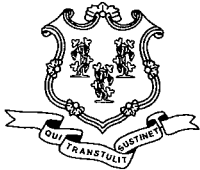
Thank you for your attention and cooperation.

Very truly yours,


S/Derek Phelps
Executive Director

SDP/MP/jb

c: The Honorable Daniel M. Steward, First Selectman, Town of Waterford
Thomas V. Wagner, Planning Director, Town of Waterford
Michael Green, Real Estate Department, Northeast Utilities



Daniel F. Caruso
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

August 20, 2008

The Honorable Daniel M. Steward
First Selectman
Town of Waterford
15 Rope Ferry Road
Waterford, CT 06385

RE: **EM-CING-152-080819** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 126 Old Colchester Road, Waterford, Connecticut.

Dear Mr. Steward:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by September 3, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/MP/cm

Enclosure: Notice of Intent

c: Thomas V. Wagner, Planning Director, Town of Waterford

EM-CING-152-080819



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

HAND DELIVERED

August 19, 2008

Honorable Daniel F. Caruso, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RECEIVED
AUG 19 2008
CONNECTICUT
SITING COUNCIL

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing tele-communications facility located at 126 Old Colchester Road, Waterford (owner, CL&P)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (GSM) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility

will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will be unaffected. Modifications to the existing site include all or some of the following as necessary to bring the site into conformance with the plan:

- Replacement of existing panel antennas with new antennas or, installation of additional antennas of a size required to accommodate UMTS.
- Installation of small tower mount amplifiers ("TMA's") and/or diplexers to the platform on which the panel antennas are mounted to enhance signal reception.
- Installation of additional or larger coaxial cables as required.
- Installation of an additional equipment cabinet in existing shelters, or on existing or enlarged concrete pads.
- Radome enlargement for flagpole and "stick" structures to accommodate larger antennas and additional associated equipment.

None of these modifications will extend the height of the tower.

2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.

4. Radio frequency power density may increase due to use of one or more GSM channel for UMTS transmissions. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, New Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7636 with questions concerning this matter. Thank you for your consideration.

Sincerely,



Steven L. Levine
Real Estate Consultant

Attachments

**CINGULAR WIRELESS
Equipment Modification**

126 Old Colchester Road, Waterford
Site Number 5235
Former AT&T Cell Site
Petition 607 Approved 3/11/03

Tower Owner/Manager: CL&P

Equipment configuration: Wood Laminate Utility Pole

Current and/or approved: Three Allgon 7250 panel antennas @ 109 ft c.l.
Six runs 1 ¼ inch coax

Planned Modifications: Remove all existing antennas
Install three Powerwave 7770 antennas @ 109 ft c.l.
Install six TMA's @ 109 ft
Remove one existing equipment cabinet
Install two equipment cabinets on existing concrete pad
Install new double gate to compound

Power Density:

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 3 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 11.3 % of the standard.

Existing

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users *							
Cingular GSM *	109	1900 Band	4	250	0.0303	1.0000	3.03
Total							3.0%

* Per CSC records.

Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users *							
Cingular GSM	109	880 - 894	4	296	0.0358	0.5867	6.11
Cingular GSM	109	1900 Band	2	427	0.0258	1.0000	2.58
Cingular UMTS	109	880 - 894	1	500	0.0151	0.5867	2.58
Total							11.3%

* Per CSC records.

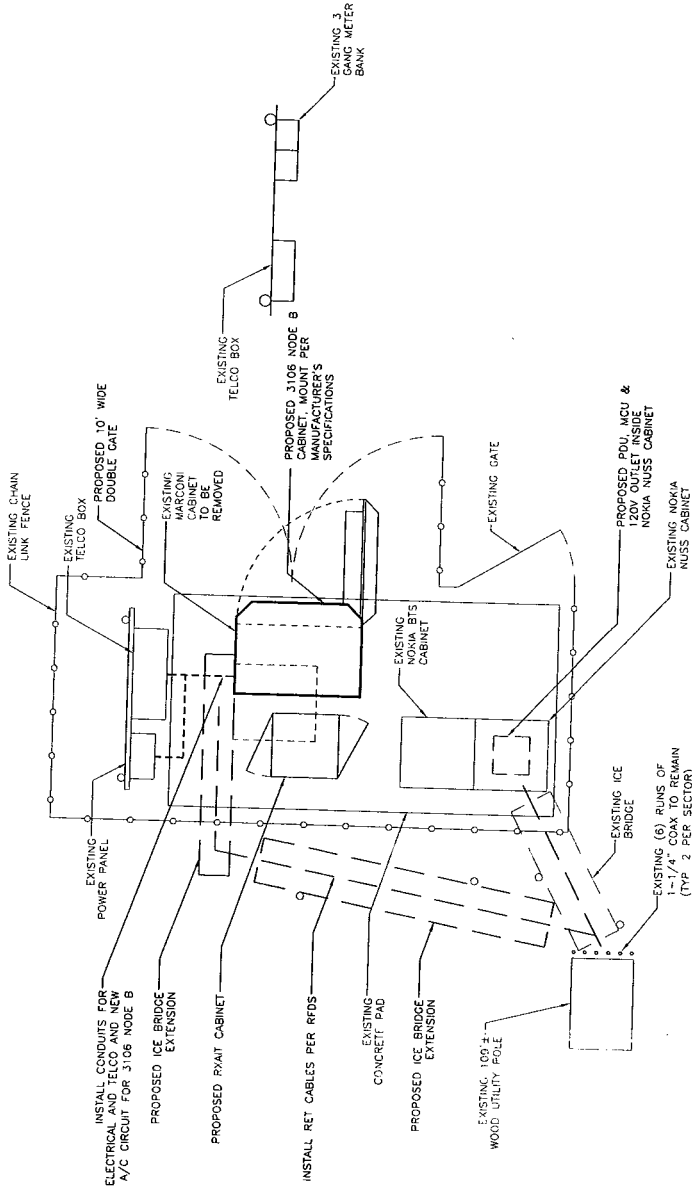
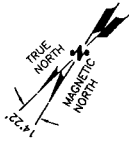
Structural information:

The attached design drawings (Laminated Wood Systems, Inc., 2003) show that the utility structure was designed to accommodate two cellular carriers, one at 109 ft AGL and the other at 99 ft AGL. Each carrier was allotted up to 12 antennas in the design.

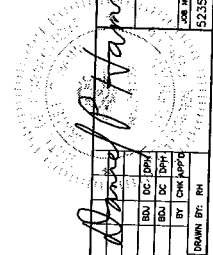
Cingular is the only carrier using this tower to support antennas, and prior to the proposed modifications, it has only 3 Allgon antennas mounted. The proposed modifications call for these 3 antennas to be replaced with 3 Powerwave antennas and 6 TMA's. The increased loading is minimal, and well within the design parameters of the tower.

CL&P's structural engineers have concluded that the tower design accommodates Cingular's existing and proposed loading and have declined to have a new structural analysis run. Per Robert Gray at CL&P, "We have reviewed the existing structural report for structure 6020 dated December 31, 2002 by Laminated Wood Systems [note: an earlier version of the attached design without subsequent revisions]. This structure was originally analyzed and designed for two sets of antennas..... Since the second antenna was never installed and the weight loading of the replacement antenna will only be increased by 21%, along with the information provided that no cable modification is needed, we feel that no additional evaluation of this structure is required." (E-mail communication, 8/15/08)

We respectfully submit that the attached design drawings provide a sufficient level of confidence that the utility tower will accommodate the proposed equipment modifications without structural modifications.



COMPOUND PLAN
SCALE: 1"=5'-0"



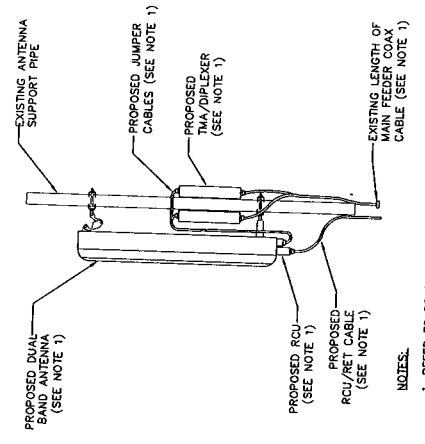
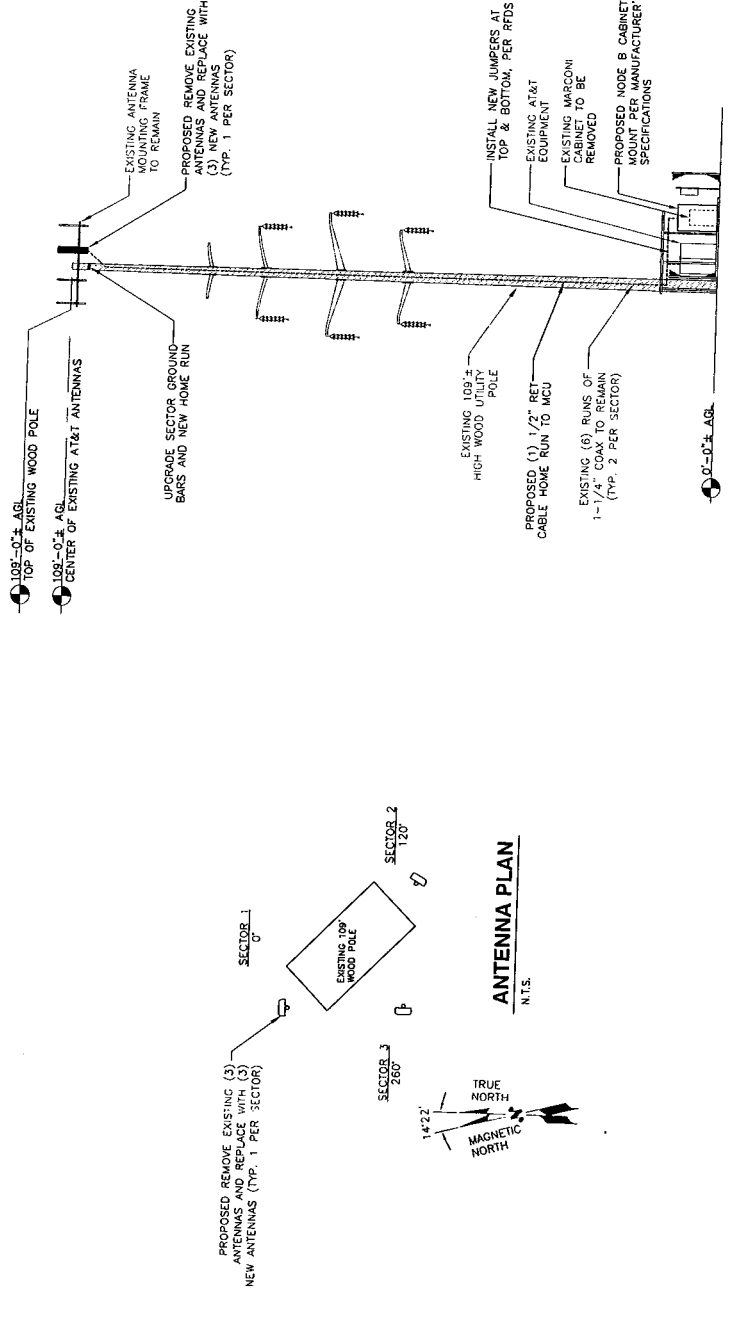
		SITE NUMBER: 5235 SITE NAME: WATERFORD NE 126 OLD COLCHESTER ROAD WATERFORD, CT 06375 NEW LONDON COUNTY				184 ROCKINGHAM ROAD, UNIT A LONDONDERRY, NH 03053			
500 ENTERPRISE DRIVE ROCKY HILL, CT 06067		1 06/07/08 CONSTRUCTION FINAL 0 05/29/08 ISSUED FOR CONSTRUCTION		BO: DC: JPH BO: DC: JPH		AT&T COMPOUND PLAN		JOB NUMBER: 5235.01 DRAWING NUMBER: A-1	
SCALE: AS SHOWN		DESIGNED BY: DC		DRAWN BY: RH		1		1	

RF TABLE

SECTOR	SECTOR NAME	ANTENNA MAKE & MODEL	ANTENNA COUNT	AZIMUTH CENTER	RAD CENTER	MECHANICAL DOWNTILT	TMA COUNT	DIPLEXER COUNT	# OF COAX CABLES
1	ALPHA	POWERWAVE 7770	1 PROPOSED 0 EXISTING	0°	109'±	0*	2 PROPOSED 0 EXISTING	0 PROPOSED 0 EXISTING	0 PROPOSED 2 EXISTING
2	BETA	POWERWAVE 7770	1 PROPOSED 0 EXISTING	120°	109'±	0*	2 PROPOSED 0 EXISTING	0 PROPOSED 0 EXISTING	0 PROPOSED 2 EXISTING
3	GAMMA	POWERWAVE 7770	1 PROPOSED 0 EXISTING	240°	109'±	0*	2 PROPOSED 0 EXISTING	0 PROPOSED 0 EXISTING	0 PROPOSED 2 EXISTING

NOTE:*
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.



NOTES:
1. REFER TO RF CONFIG & SECTOR SCHEMATICS FOR QUANTITY REQUIRED PER SECTOR

at&t

500 ENTERPRISE DRIVE
ROCKY HILL, CT 06867

DESIGNED BY: DC
DRAWN BY: BR

REVISIONS
NO. DATE

CONSTRUCTION FINAL
1 09/09/2001

ISSUED FOR CONSTRUCTION
0 05/28/2001

SCALE: AS SHOWN

SAI Communications

184 ROCKINGHAM ROAD, UNIT A
LONDON, NH 03053

TEL: (603) 555-5533
FAX: (603) 234-6504

14222

TRUE NORTH
MAGNETIC NORTH

at&t

SITE NUMBER: 5235
SITE NAME: WATERFORD NE
126 OLD COLCHESTER ROAD
WATERFORD, CT 06375
NEW LONDON COUNTY

ANTENNA LAYOUT AND ELEVATION

JOB NUMBER: 5235.01
DRAWING NUMBER: A-2



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

August 19, 2008

Honorable Daniel M. Steward
1st Selectman, Town of Waterford
Town Hall, 15 Rope Ferry Rd.
Waterford, CT 06385

Re: Telecommunications Facility – 126 Old Colchester Road, Waterford

Dear Mr. Steward:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System (“UMTS”) capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC (“Cingular”) will be changing its equipment configuration at certain cell sites.

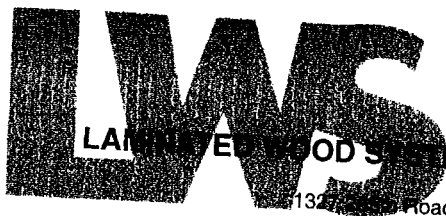
As required by Regulations of Connecticut State Agencies (“R.C.S.A.”) Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review Cingular’s proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes Cingular’s proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council’s procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine
Real Estate Consultant

Enclosure



LAMINATED WOOD SYSTEMS, INC.

1325 Seward Road • P.O. Box 386 • Seward, NE 68434 • 800-949-3526 • Fax 402-643-4374 • e-mail lws@navix.net

E-Lam
Laminated Wood
Antenna Pole

for

Bechtel
AT&T/Northeast Utilities
Site # CT-235
Waterford Site
Str. # 6020
Waterford, CT

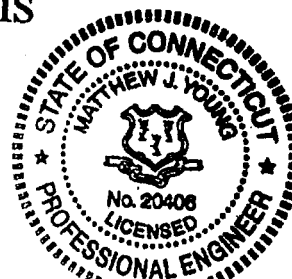
Design Drawings and Calculations
(26 Pages + Cover Sheet)

PoleEnforcer

Engineered Groundline Reinforcing Products

E-LAM®

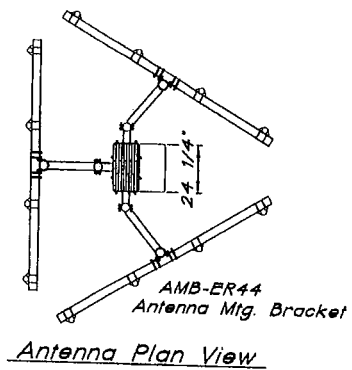
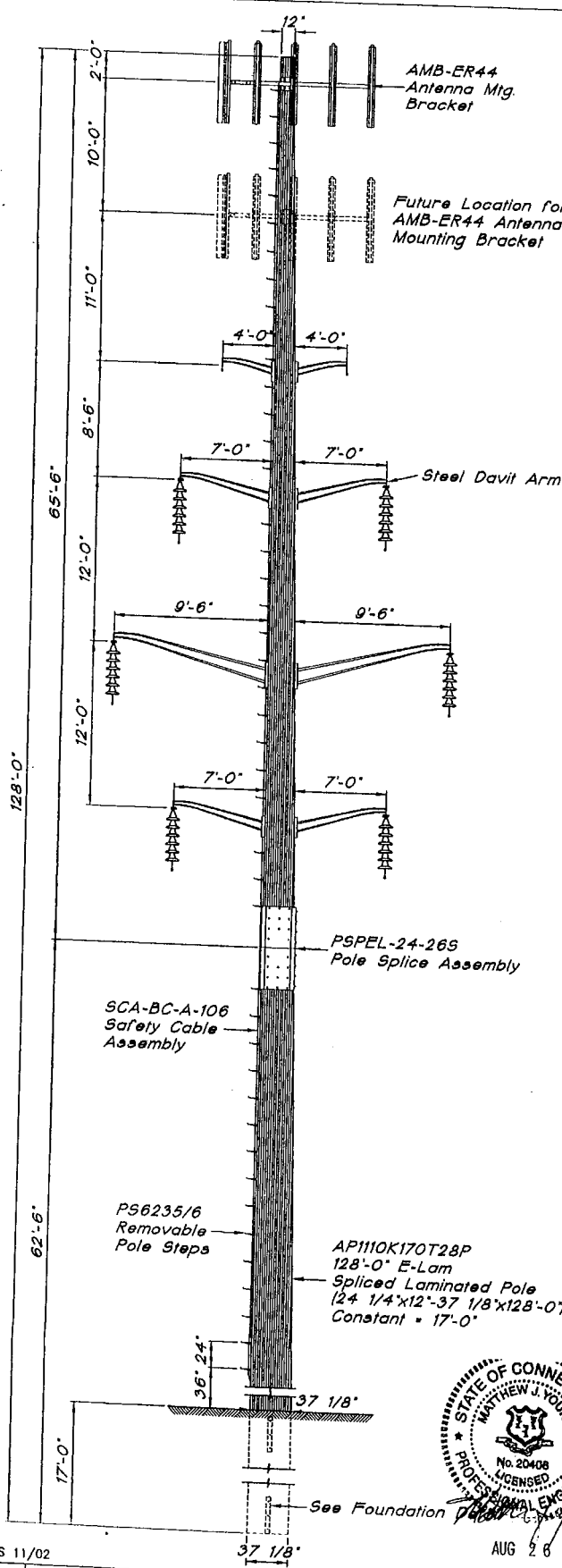
Engineered Laminated Wood Products



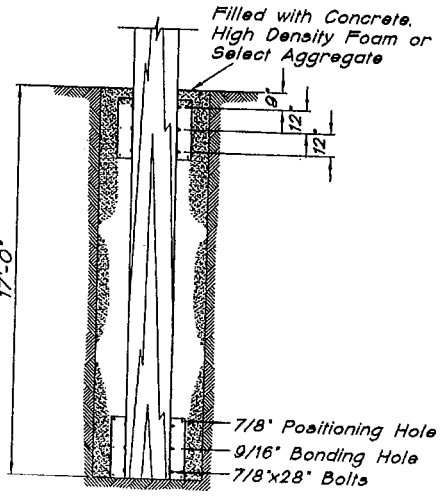
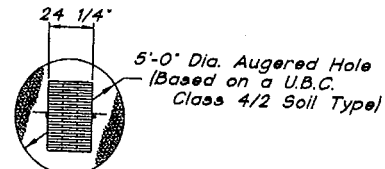
PHASERAISER®

Raising Structures to New Heights

AUG 26 2003



Antenna Plan View



Foundation Detail



(Structure No. 6020)
 (Site No. CT-235)
Type "NESC-0023.06A1"
3-Sector Antenna Structure
 Northeast Utilities Services Company
 (Waterford Site)

© LWS 11/02

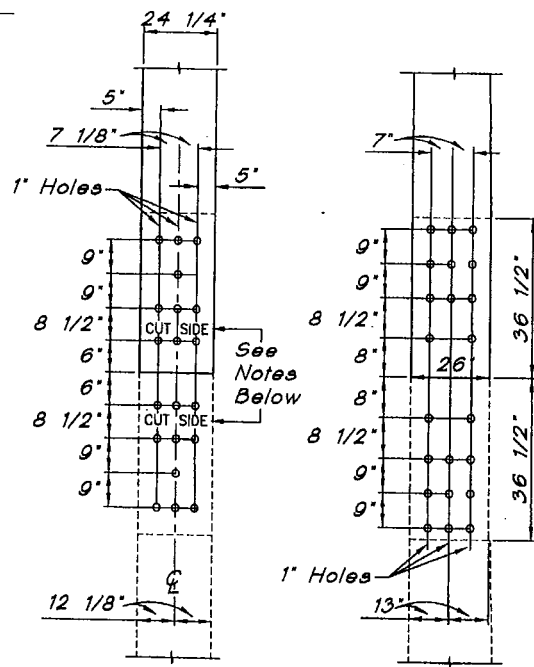
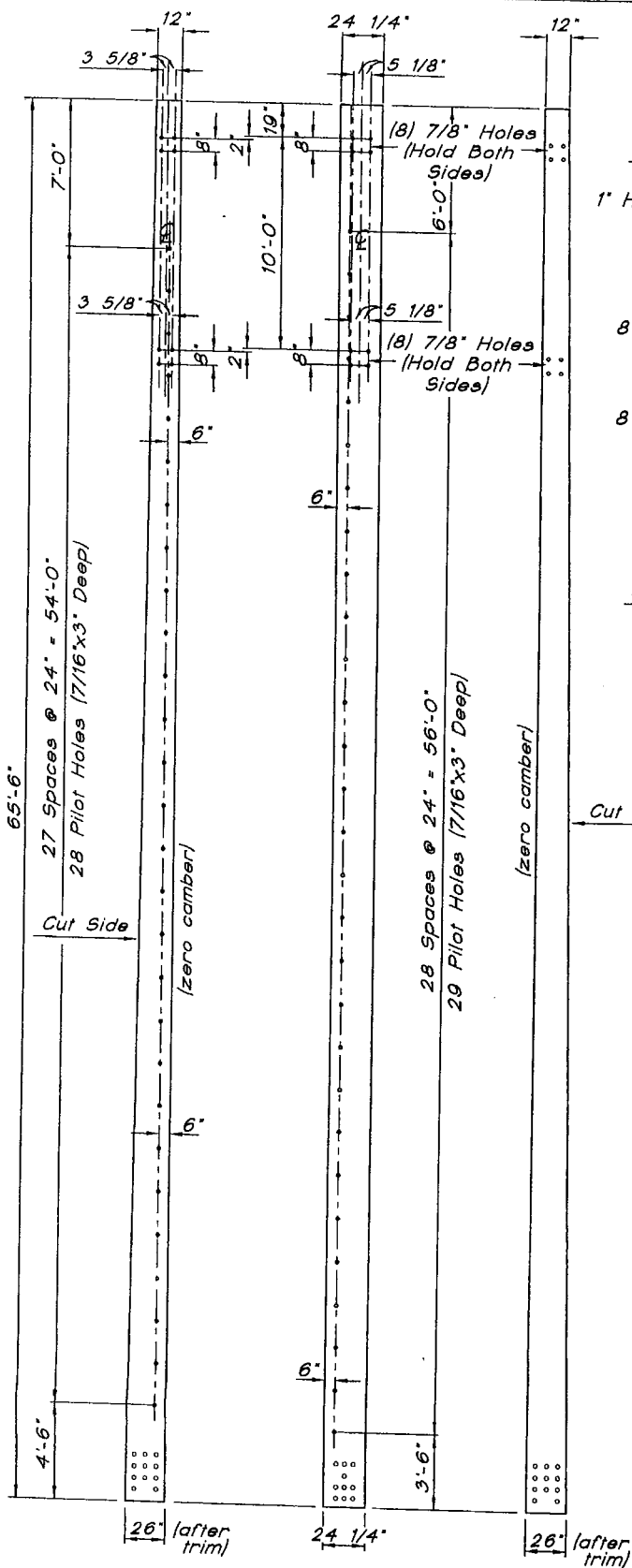
NO.	REVISION	DATE	CK.
2.	Added Pole Steps	8-26-03	
1.	Reduced Embedment Depth	7-22-03	
ACAD DWG. FILE:	NESC2306A1		

Laminated Wood Systems, Inc.

E-LAM

P.O. BOX 386, SEWARD, NE 68434 1-800-949-ELAM

DRAWN: J. Baack DATE: 11-20-02 DWG. NO.: NESC-0023.06A1



Pole Splice Drilling.

Notes:
 Brand "CUT SIDE" on each pole sections cut side, approx. 6" from either adjacent pole end for Cut Side proper pole alignment.

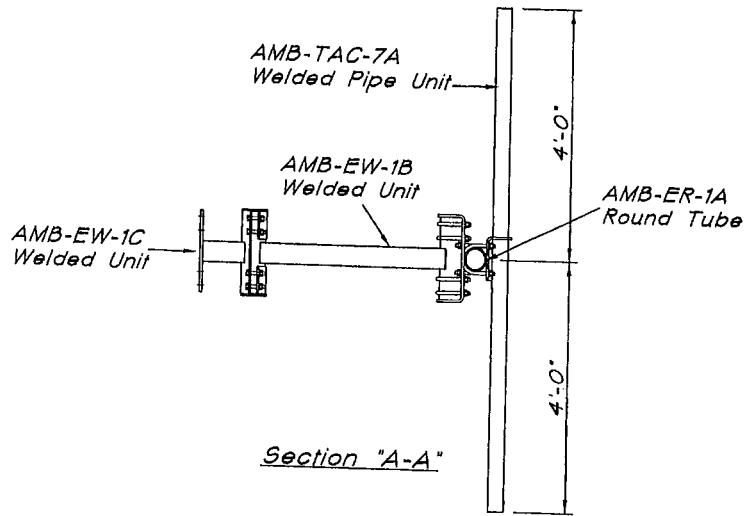
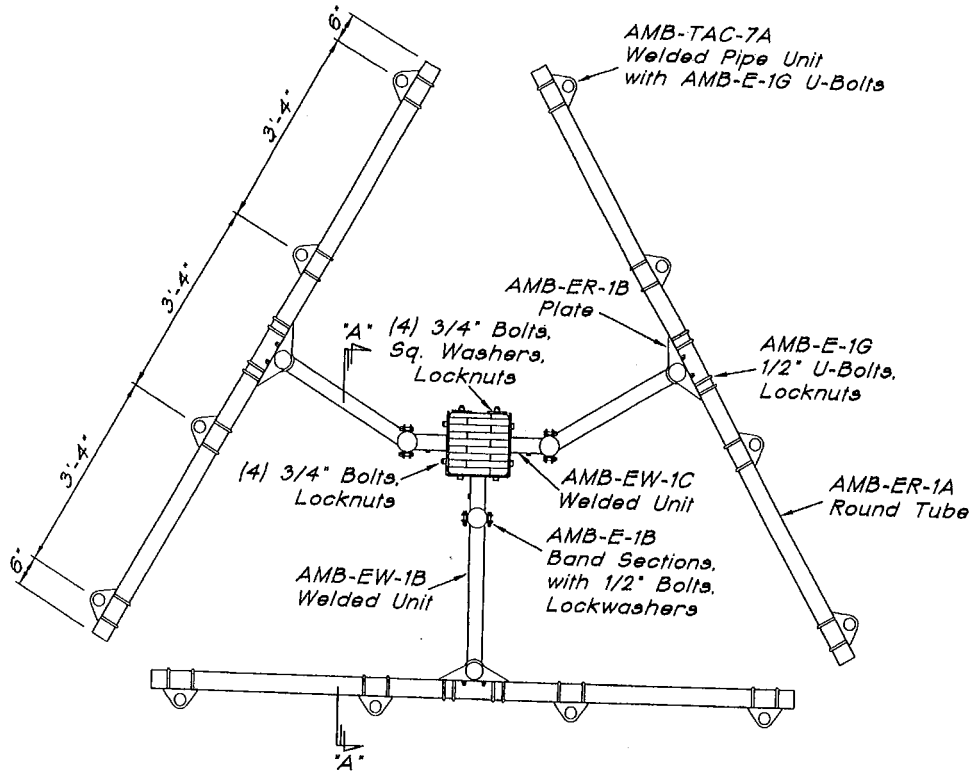
Splice plates should be used to verify splice hole locations prior to treatment.

Radius all edges with 1/2" Radius (min.)

Upper Pole Drilling Detail
 Northeast Utilities Service Company
 Berlin, Connecticut

© LWS 11/02

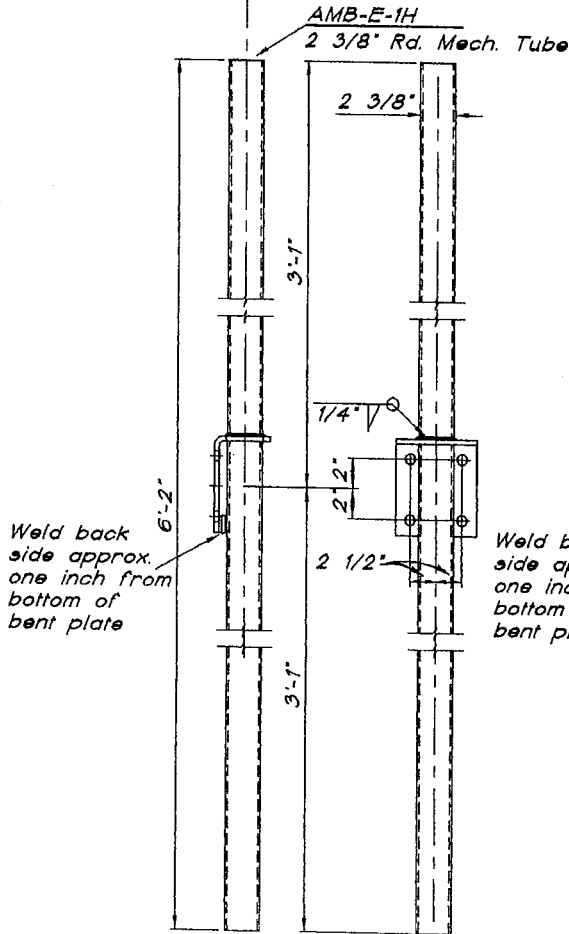
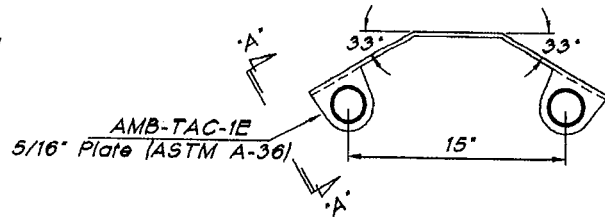
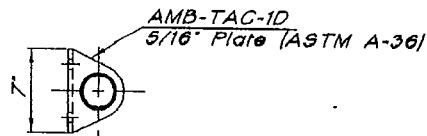
				Laminated Wood Systems, Inc.	
				E-LAM	
		P.O. BOX 386, SEWARD, NE 68434		1-800-949-ELAM	
1. Added Drilling for Steps		8-26-03		DRAWN D. Policky	
NO. REVISION		DATE		DATE 11-25-02	
ACAD DWG. FILE: NESC2306B1		CK.		DWG. NO. NESC-0023.06B1B	



AMB-ER44 Antenna Mtg. Bracket Assembly

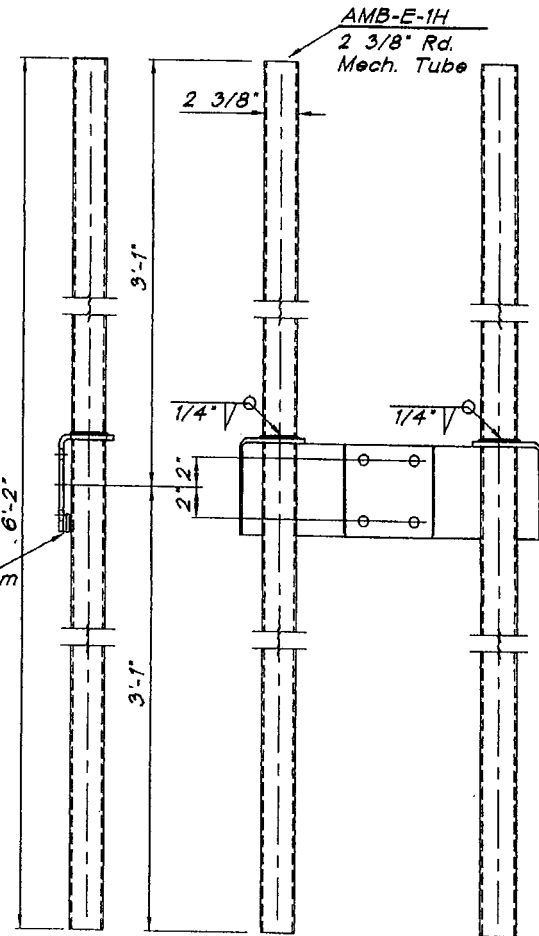
© LWS 5/98

				Laminated Wood Systems, Inc.	
				E-LAM	
				P.O. BOX 386, SEWARD, NE 68434	1-800-949-ELAM
1.	changed AMB-TAC-3C to AMB-TAC-7A	7/7/03		DRAWN	DATE
NO.	REVISION	DATE	CK.	C. Buettner	5-21-98
ACAD DWG. FILE: AMB-ER44				DWG. NO.	AMB-ER44



Weld back side approx. one inch from bottom of bent plate

Weld back side approx. one inch from bottom of bent plate



View "A-A"

AMB-ST-2A
Welded Single Pipe Unit

AMB-ST-2B
Welded Double Pipe Unit

Tolerances	
Hole Locations	±1/32"
Tube Lengths	±1/4"
Plate Dimensions	±1/4"

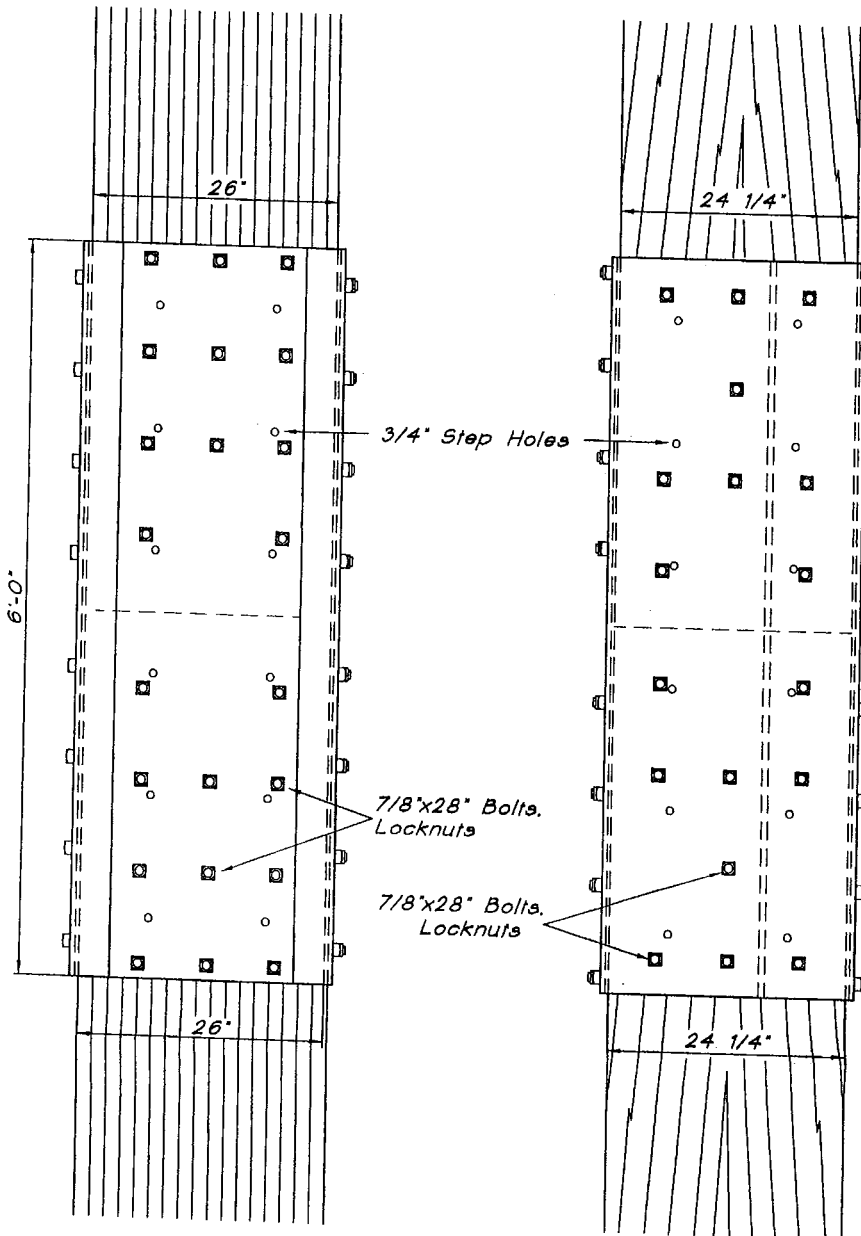
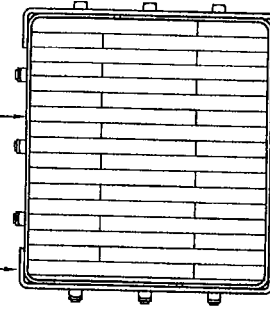
© LWS 8/97

				Laminated Wood Systems, Inc.	
				E-LAM	
				P.O. BOX 386, SEWARD, NE 68434 1-800-949-ELAM	
NO.	REVISION	DATE	CK.	DRAWN	DATE
				D. Pollock	8-7-97
ACAD DWG. FILE: AMB-ST-2				DWG. NO.	AMB-ST-2

Type "PSPEL-24-26S"
Pole Splice Detail
 (for 24 1/4"x26" Splice Section)

PSPEL-24-26-SP
 5/16" Pole Splice

PSPEL-24.2-1
 1/4" Splice
 Reinforcement



●LWS 11/02

NO.	REVISION	DATE	CK.

Laminated Wood Systems, Inc.

E-LAM

P.O. BOX 386, SEWARD, NE 68434

1-800-949-ELAM

DRAWN
 D. Policky

DATE
 11-25-02

DWG.
 NO.

PSPEL-24-26S

Element Label	pole dia. (ft)	Dist. Above Ground (ft)	Dist. From Diameter (ft)	Area (sq in)	Outset (in)	Area (sq in)	Area (sq in)
6020:ANT1	2.00	0.00					
6020:ANT2	12.00	0.00					
6020:R1	23.00	0.00					
6020:R2	32.00	0.00					
6020:R3	44.00	0.00					
6020:R4	56.00	0.00					

Detailed Laminated Wood Properties:

Element Label	Stock Weight (lb/ft)	Wind Area (sq ft)	Y-axis Area (sq in)	Z-axis Area (sq in)	Y-axis Moment of Inertia (in ⁴)	Z-axis Moment of Inertia (in ⁴)	Section Modulus (in ³)	Ultimate Capacity (lb/ft)	Modulus of Elasticity (ksi)	Creep Coefficient	Strength Class	Vertical Capacity (lb)	Design Capacity (lb)	Section Modulus (in ³)	Section Modulus (in ³)
6020	6020:111.00	0.00	12.00	291.00	3492.0	582.0	368.6	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:104.00	7.00	13.36	300.30	3837.7	619.8	420.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:94.00	12.00	14.30	342.36	4800.1	719.5	549.7	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:81.00	17.00	15.26	370.07	5711.2	825.7	679.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:69.00	20.00	15.84	394.02	6025.2	841.2	698.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:59.00	22.00	16.41	397.97	6332.2	858.5	732.5	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:50.00	25.00	17.27	418.90	6745.6	896.0	773.5	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:44.00	27.00	18.14	439.83	7207.5	939.6	816.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:39.00	29.00	19.14	459.83	7707.9	982.4	858.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:34.00	31.00	19.77	479.99	8207.9	1025.4	898.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:30.00	33.00	20.44	495.64	8707.9	1073.3	941.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:26.00	34.00	21.40	518.90	9207.9	1121.5	986.5	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:22.00	35.00	22.07	535.18	9707.9	1172.5	1031.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:18.00	36.00	22.74	551.46	10207.9	1221.5	1076.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:14.00	37.00	23.46	567.71	10707.9	1271.5	1121.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:10.00	38.00	24.16	584.02	11207.9	1321.5	1166.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:8.00	39.00	24.82	600.27	11707.9	1371.5	1211.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:6.00	40.00	25.62	621.22	12207.9	1421.5	1256.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:5.00	41.00	26.58	644.48	12707.9	1471.5	1301.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:4.00	42.00	27.54	667.73	13207.9	1521.5	1346.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:3.00	43.00	28.49	690.99	13707.9	1571.5	1391.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:2.00	44.00	29.45	714.24	14207.9	1621.5	1436.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:1.00	45.00	30.37	737.50	14707.9	1671.5	1481.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:0.00	46.00	31.31	760.76	15207.9	1721.5	1526.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:0.00	47.00	32.23	784.03	15707.9	1771.5	1571.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0
6020	6020:0.00	48.00	33.29	807.26	16207.9	1821.5	1616.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0

Equipment Library:

Equipment Property Label	Stock Weight (lb)	Wind Area (sq ft)	Y-axis Area (sq in)	Z-axis Area (sq in)	Y-axis Moment of Inertia (in ⁴)	Z-axis Moment of Inertia (in ⁴)	Section Modulus (in ³)	Ultimate Capacity (lb/ft)	Modulus of Elasticity (ksi)	Creep Coefficient	Strength Class	Vertical Capacity (lb)	Design Capacity (lb)	Section Modulus (in ³)	Section Modulus (in ³)
AMB-EM44	0.0	0.00	0.00	39.40	Square	9.15	4.00								
Platform	0.0	0.00	45.00	Square	12.00	4.00									

Equipment Connectivity:

Equipment Label	Attach Property Label
AMB-EM44	AMB-EM44
Platform	Platform

Devit Properties:

Devit Property Label	Stock Weight (lb)	Wind Area (sq ft)	Y-axis Area (sq in)	Z-axis Area (sq in)	Y-axis Moment of Inertia (in ⁴)	Z-axis Moment of Inertia (in ⁴)	Section Modulus (in ³)	Ultimate Capacity (lb/ft)	Modulus of Elasticity (ksi)	Creep Coefficient	Strength Class	Vertical Capacity (lb)	Design Capacity (lb)	Section Modulus (in ³)	Section Modulus (in ³)
DAVIT48	54	1000	100	69	9	6	1.6	1800	1 point			30000	30000	30000	30000
DAVIT 84	54	1000	100	69	9	6	1.6	1800	1 point			30000	30000	30000	30000
DAVIT114	54	1000	100	69	9	6	1.6	1800	1 point			30000	30000	30000	30000

Intermediate Points for Devit Property "DAVIT48":

Joint Horiz. Vert. Label Offset (ft)	Label Offset (ft)
end	4 0

Intermediate Points for Devit Property "DAVIT 84":

Joint Horiz. Vert. Label Offset (ft)	Label Offset (ft)
end	7 0

Intermediate Points for Devit Property "DAVIT114":

Joint Horiz. Vert. Label Offset (ft)	Label Offset (ft)
end	7 0

MCR	1714	0	0
BCL	1714	0	0
MCR	1714	0	0
ANT1	2000	0	346
ANT2	3000	0	720

Point Loads for Load Case "EXT. WIND E":

Label	Load (lbs)	Longitudinal Load (lbs)	Transverse Load (lbs)
SWL	264	547	0
SWR	264	547	0
TCL	729	1510	0
TCR	729	1510	0
MCL	729	1510	0
MCR	729	1510	0
BCL	729	1510	0
BCR	729	1510	0
ANT1	2000	1293	0
ANT2	3000	2694	0

Point Loads for Load Case "EXT. WIND W":

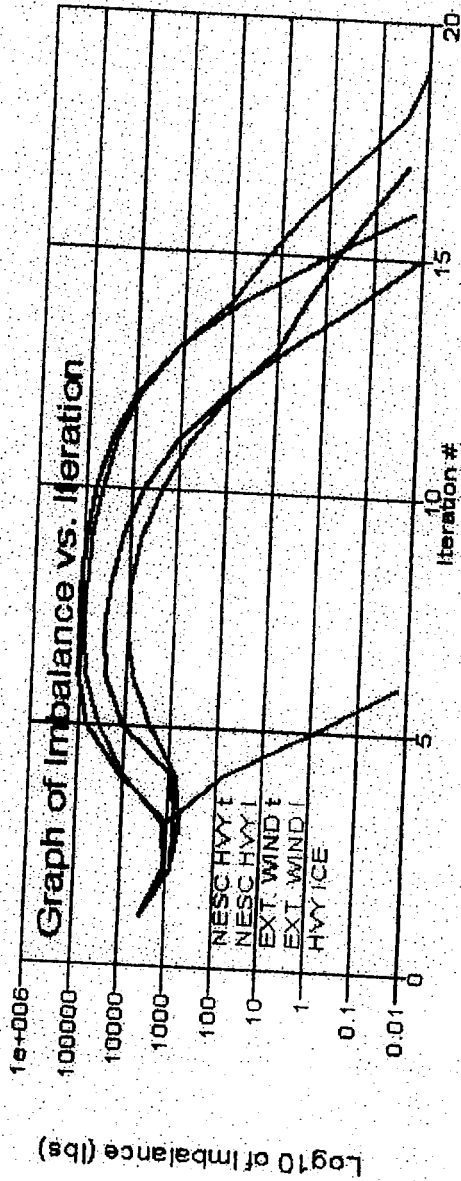
Label	Load (lbs)	Longitudinal Load (lbs)	Transverse Load (lbs)
SWL	264	0	0
SWR	264	0	0
TCL	729	0	0
TCR	729	0	0
MCL	729	0	0
MCR	729	0	0
BCL	729	0	0
BCR	729	0	0
ANT1	2000	0	1293
ANT2	3000	0	2694

Point Loads for Load Case "WY ICF":

Label	Load (lbs)	Longitudinal Load (lbs)	Transverse Load (lbs)
SWL	1440	0	0
SWR	1440	0	0
TCL	2435	0	0
TCR	2435	0	0
MCL	2435	0	0
MCR	2435	0	0
BCL	2435	0	0
BCR	2435	0	0
ANT1	2000	0	0
ANT2	3000	0	0

*** Analysis Results:

Maximum element utilization is 81.44% for Concrete Pole "6020" in load case "EXT. WIND E"
 Maximum insulator utilization is 6.72% for Suspension "ANT2" in load case "EXT. WIND E"



*** Analysis Results for Load Case No. 1 "NESC HWY I" - Number of Iterations in CASE 15

Equilibrium Joint Positions and Rotations:

Joint Label	X-Displ (ft)	Y-Displ (ft)	Z-Displ (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (ft)	Y-Pos (ft)	Z-Pos (ft)
6020t	0	0	0	0.0000	0.0000	0.0000	0	0	0
6020t	-7.256e-008	2.953	-0.05054	-2.3875	0.0000	-0.0000	-7.256e-008	2.953	110.9
6020t	3.184e-007	2.869	-0.0488	-2.3875	0.0000	-0.0000	3.184e-007	2.869	109
6020t	-1.328e-006	2.454	-0.04013	-2.3894	0.0000	-0.0000	-1.328e-006	2.454	98.96
6020t	3.407e-006	2.005	-0.03089	-2.2995	0.0000	-0.0000	3.407e-006	2.005	97.97
6020t	-3.859e-006	1.232	-0.02383	-2.1963	0.0000	-0.0000	-3.859e-006	1.232	97.38
6020t	3.678e-006	0.9258	-0.002266	-1.9814	0.0000	-0.0000	3.678e-006	0.9258	94.99
6020t	-2.692e-006	2.004	-0.05832	-2.3299	0.0000	-0.0000	-2.692e-006	2.004	94.99
6020t	2.329e-006	2.001	-0.2203	-2.3299	0.0000	-0.0000	2.329e-006	2.001	94.99
6020t	-0.03349	-2.2995	0.0000	-0.0000	-0.0000	-0.0000	-0.03349	-2.2995	94.99
6020t	0.1855	-2.2691	0.0000	0.0000	0.0000	-0.0000	0.1855	-2.2691	94.99
6020t	-0.328	-2.1959	0.0000	0.0000	0.0000	-0.0000	-0.328	-2.1959	94.99
6020t	0.055046	-2.3879	0.0000	0.0000	0.0000	-0.0000	0.055046	-2.3879	94.99
6020t	-7.034e-006	1.645	0.005046	-2.3879	0.0000	-0.0000	-7.034e-006	1.645	94.99
6020t	3.411e-006	1.652	-0.04311	-1.9814	0.0000	-0.0000	3.411e-006	1.652	94.99
6020t	-0.2572	-2.0023	0.0000	0.0000	0.0000	-0.0000	-0.2572	-2.0023	94.99
6020t	3.538e-007	1.222	-0.04311	-1.9814	0.0000	-0.0000	3.538e-007	1.222	94.99
6020t	-1.955e-006	1.205	-0.4135	-2.3365	0.0000	0.0001	-1.955e-006	1.205	94.99
6020t	3.864e-005	1.215	0.01378	-1.9814	0.0000	-0.0000	3.864e-005	1.215	94.99
6020t	5.713e-006	1.217	0.3023	-1.6244	0.0000	0.0001	5.713e-006	1.217	94.99

Laminated Wood Systems - nesc_6020

SWR 0.99 60.00 1.64
 SWL 0.99 60.00 1.66
 TCR 1.92 60.00 3.21
 TCR 1.92 60.00 3.21
 MCL 1.92 60.00 3.21
 MCL 1.92 60.00 3.21
 BCR 1.92 60.00 3.21
 BCL 1.92 60.00 3.21
 NMT1 2.03 60.00 3.38
 NMT2 3.09 60.00 5.14

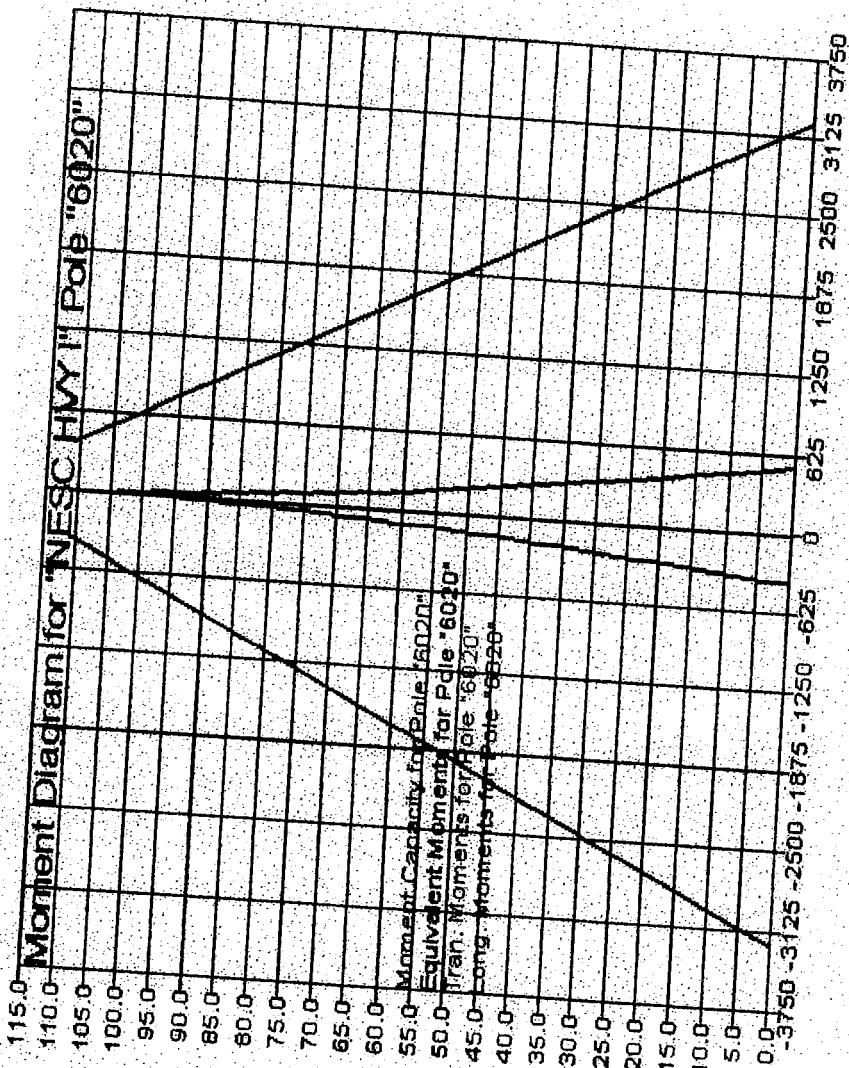
*** Analysis Results for Load Case No. 2 "NESC HY 1" - Number of Iterations in SACS 17

Equilibrium Joint Positions and Rotations:

Joint Label	X-Displ (ft)	Y-Displ (ft)	Z-Displ (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Disp (ft)	Y-Disp (ft)	Z-Disp (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Disp (ft)	Y-Disp (ft)	Z-Disp (ft)
6020:G	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6020:ANT1	1.928	-1.138e-005	-0.02141	0.0000	1.4373	0.0000	1.927	-1.138e-005	-0.02141	0.0000	1.437	0.0000	1.927	-1.138e-005	-0.02141
6020:ANT2	1.627	-1.057e-003	-0.01978	0.0000	1.4373	0.0000	1.627	-1.057e-003	-0.01978	0.0000	1.437	0.0000	1.627	-1.057e-003	-0.01978
6020:SW	1.354	-3.704e-006	-0.01443	0.0000	1.4320	0.0000	1.354	-3.704e-006	-0.01443	0.0000	1.432	0.0000	1.354	-3.704e-006	-0.01443
6020:BC	0.6083	-1.398e-006	-0.00811	0.0000	1.2678	0.0000	0.6083	-1.398e-006	-0.00811	0.0000	1.268	0.0000	0.6083	-1.398e-006	-0.00811
6020:MC	0.6083	-1.398e-006	-0.00811	0.0000	1.2678	0.0000	0.6083	-1.398e-006	-0.00811	0.0000	1.268	0.0000	0.6083	-1.398e-006	-0.00811
SW:End	1.354	-3.704e-006	-0.01443	0.0000	1.4320	0.0000	1.354	-3.704e-006	-0.01443	0.0000	1.432	0.0000	1.354	-3.704e-006	-0.01443
SW:Mid	1.354	-3.704e-006	-0.01443	0.0000	1.4320	0.0000	1.354	-3.704e-006	-0.01443	0.0000	1.432	0.0000	1.354	-3.704e-006	-0.01443
SW:End	1.354	-3.704e-006	-0.01443	0.0000	1.4320	0.0000	1.354	-3.704e-006	-0.01443	0.0000	1.432	0.0000	1.354	-3.704e-006	-0.01443
TCR:End	1.137	-8.024e-006	-0.01144	0.0000	1.3610	0.0000	1.137	-8.024e-006	-0.01144	0.0000	1.361	0.0000	1.137	-8.024e-006	-0.01144
TCR:Mid	1.137	-8.024e-006	-0.01144	0.0000	1.3610	0.0000	1.137	-8.024e-006	-0.01144	0.0000	1.361	0.0000	1.137	-8.024e-006	-0.01144
TCR:End	1.137	-8.024e-006	-0.01144	0.0000	1.3610	0.0000	1.137	-8.024e-006	-0.01144	0.0000	1.361	0.0000	1.137	-8.024e-006	-0.01144
MCR:End	0.8607	-7.388e-006	-0.00811	0.0000	1.2678	0.0000	0.8607	-7.388e-006	-0.00811	0.0000	1.268	0.0000	0.8607	-7.388e-006	-0.00811
MCR:Mid	0.8607	-7.388e-006	-0.00811	0.0000	1.2678	0.0000	0.8607	-7.388e-006	-0.00811	0.0000	1.268	0.0000	0.8607	-7.388e-006	-0.00811
MCR:End	0.8607	-7.388e-006	-0.00811	0.0000	1.2678	0.0000	0.8607	-7.388e-006	-0.00811	0.0000	1.268	0.0000	0.8607	-7.388e-006	-0.00811
BCL:End	0.6083	-1.398e-006	-0.00811	0.0000	1.2678	0.0000	0.6083	-1.398e-006	-0.00811	0.0000	1.268	0.0000	0.6083	-1.398e-006	-0.00811
BCL:Mid	0.6083	-1.398e-006	-0.00811	0.0000	1.2678	0.0000	0.6083	-1.398e-006	-0.00811	0.0000	1.268	0.0000	0.6083	-1.398e-006	-0.00811
BCL:End	0.6083	-1.398e-006	-0.00811	0.0000	1.2678	0.0000	0.6083	-1.398e-006	-0.00811	0.0000	1.268	0.0000	0.6083	-1.398e-006	-0.00811
ECL:End	0.6141	1.989e-005	-0.02189	0.0000	1.1334	0.0000	0.6141	1.989e-005	-0.02189	0.0000	1.133	0.0000	0.6141	1.989e-005	-0.02189

Joint Support Reactions:

Joint Label	X-Force (kips)	Y-Force (kips)	Z-Force (kips)	X-Rotation (deg)	Y-Rotation (deg)	Z-Rotation (deg)	X-Disp (ft)	Y-Disp (ft)	Z-Disp (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Disp (ft)	Y-Disp (ft)	Z-Disp (ft)
6020:G	-3.386	0.0	-0.000	0.0	46.987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.000	0.0	-0.000



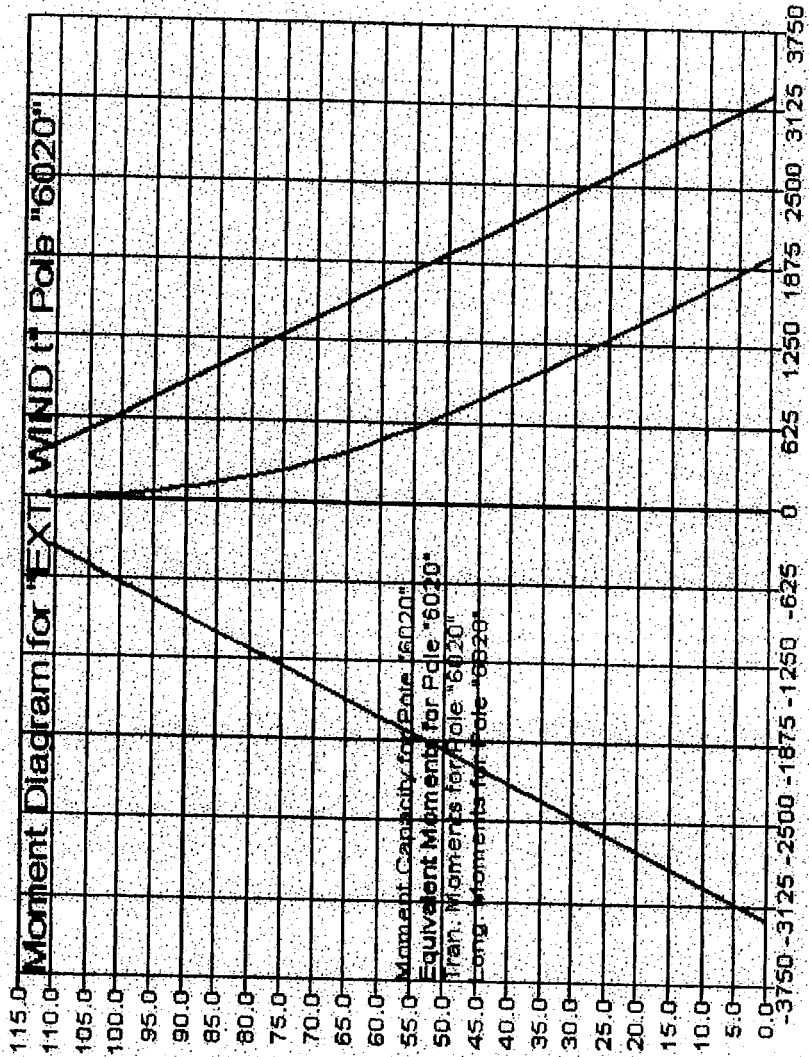
Height Above Ground (ft)

Moment (ft-k)

Detailed Laminated Wood Pole Ranges:

Element Label	Joint Label	Joint Position	Rel. Hgt. (ft)	Trans. Defl. (in)	Long. Defl. (in)	Vert. Trans. Defl. (in)	Long. Trans. Defl. (in)	Long. Force (kips)	Long. Mom. (ft-k)	Long. Force (kips)	Long. Mom. (ft-k)	Long. Force (kips)	Long. Mom. (ft-k)	Long. Force (kips)	Long. Mom. (ft-k)	Long. Force (kips)	Long. Mom. (ft-k)	Long. Force (kips)	Long. Mom. (ft-k)
6020	6020:1	Origin	0.00	-0.00	23.13	-0.26	0.00	0.00	0.00	-0.00	-0.00	-0.14	0.00	-0.04	0.00	-0.04	0.00	0.00	0.00
6020	6020:1	End	2.00	-0.00	23.13	-0.25	0.00	0.00	-0.07	-0.00	-0.14	0.00	-0.04	0.00	-0.04	0.00	-0.04	0.00	0.00
6020	6020:1	Origin	2.00	-0.00	23.13	-0.25	0.00	0.00	-0.07	-0.00	-0.14	0.00	-0.04	0.00	-0.04	0.00	-0.04	0.00	0.00
6020	6020:1	End	7.00	-0.00	21.03	-0.23	0.00	0.00	-2.86	-0.00	-2.65	0.00	-0.56	0.00	-0.56	0.00	-0.56	0.00	0.00
6020	6020:1	Origin	12.00	-0.00	19.93	-0.21	0.00	0.00	-6.86	-0.00	-3.42	0.00	-0.74	0.00	-0.74	0.00	-0.74	0.00	0.00
6020	6020:1	End	17.00	-0.00	18.03	-0.19	0.00	0.00	-6.56	-0.00	-3.42	0.00	-0.74	0.00	-0.74	0.00	-0.74	0.00	0.00
6020	6020:1	Origin	17.00	-0.00	18.03	-0.19	0.00	0.00	-15.13	-0.00	-7.23	0.00	-1.72	0.00	-1.72	0.00	-1.72	0.00	0.00
6020	6020:1	End	20.00	-0.00	17.14	-0.18	0.00	0.00	-20.71	-0.00	-7.93	0.00	-1.86	0.00	-1.86	0.00	-1.86	0.00	0.00
6020	6020:1	Origin	20.00	-0.00	17.14	-0.18	0.00	0.00	-20.71	-0.00	-7.93	0.00	-1.86	0.00	-1.86	0.00	-1.86	0.00	0.00
6020	6020:1	End	23.00	-0.00	16.25	-0.17	0.00	0.00	-26.62	-0.00	-8.49	0.00	-1.97	0.00	-1.97	0.00	-1.97	0.00	0.00
6020	6020:1	Origin	23.00	-0.00	16.25	-0.17	0.00	0.00	-26.62	-0.00	-8.49	0.00	-1.97	0.00	-1.97	0.00	-1.97	0.00	0.00
6020	6020:1	End	27.00	-0.00	14.94	-0.15	0.00	0.00	-36.74	-0.00	-11.02	0.00	-2.23	0.00	-2.23	0.00	-2.23	0.00	0.00
6020	6020:1	Origin	27.00	-0.00	14.94	-0.15	0.00	0.00	-36.74	-0.00	-11.02	0.00	-2.23	0.00	-2.23	0.00	-2.23	0.00	0.00
6020	6020:1	End	32.00	-0.00	13.64	-0.14	0.00	0.00	-47.58	-0.00	-11.32	0.00	-2.41	0.00	-2.41	0.00	-2.41	0.00	0.00
6020	6020:1	Origin	32.00	-0.00	13.64	-0.14	0.00	0.00	-47.58	-0.00	-11.32	0.00	-2.41	0.00	-2.41	0.00	-2.41	0.00	0.00
6020	6020:1	End	37.00	-0.00	12.23	-0.12	0.00	0.00	-61.77	-0.00	-16.56	0.00	-2.83	0.00	-2.83	0.00	-2.83	0.00	0.00
6020	6020:1	Origin	37.00	-0.00	12.23	-0.12	0.00	0.00	-61.77	-0.00	-16.56	0.00	-2.83	0.00	-2.83	0.00	-2.83	0.00	0.00
6020	6020:1	End	40.00	-0.00	11.27	-0.11	0.00	0.00	-72.21	-0.00	-17.49	0.00	-2.98	0.00	-2.98	0.00	-2.98	0.00	0.00
6020	6020:1	Origin	40.00	-0.00	11.27	-0.11	0.00	0.00	-72.21	-0.00	-17.49	0.00	-2.98	0.00	-2.98	0.00	-2.98	0.00	0.00

Laminated Wood Systems - nesc_6020



Detailed Laminated Wood Pole Usage:

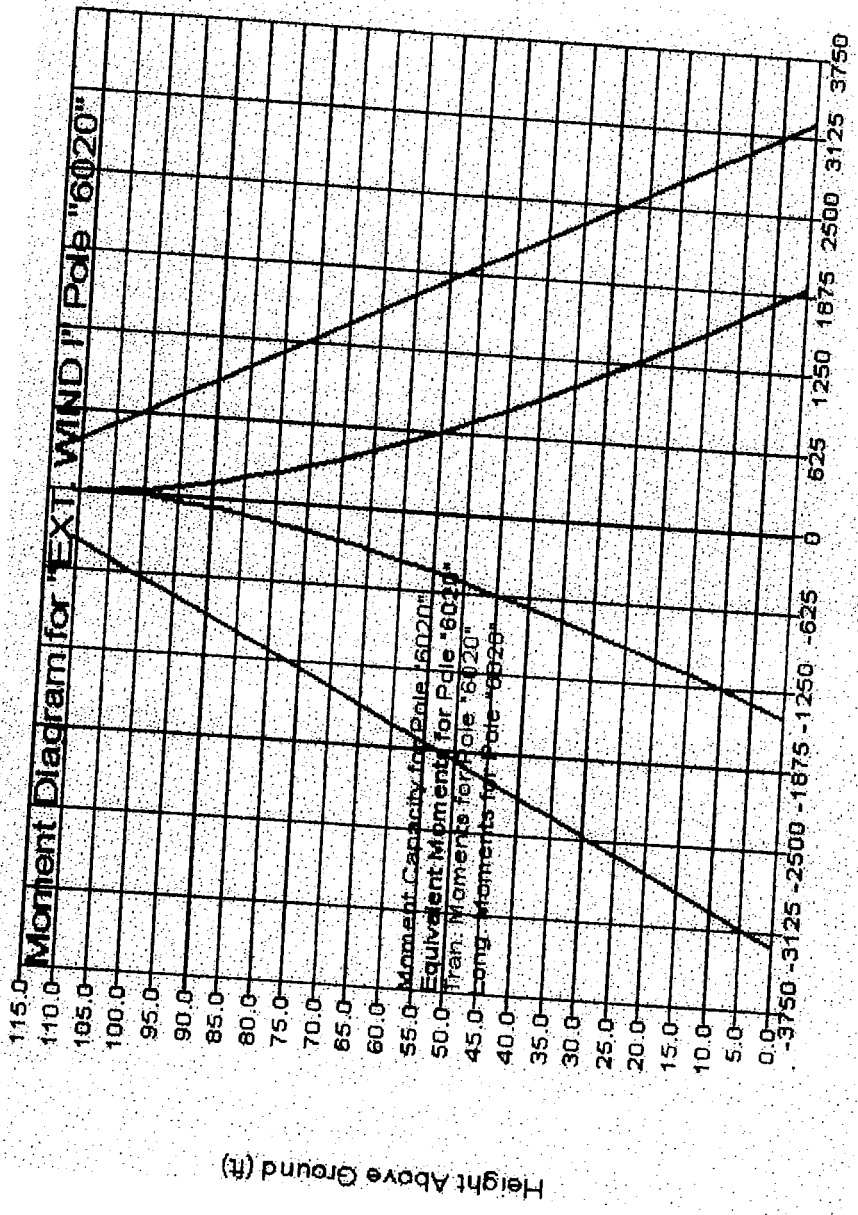
Element Label	Joint Label	Joint Position	Dist. (ft)	Max. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	Trans. Mom. (ft-k)	Long. Mom. (ft-k)	Tors. Mom. (ft-k)	Radial Force (kip)	Radial Shear (kip)	Trans. Shear (kip)	Long. Shear (kip)	Design %
6020	6020:1	Origin	0.00	87.31	0.00	-3.43	-0.00	0.00	0.00	0.00	-0.14	0.14	-0.00	0.0
6020	6020:AW1	End	2.00	84.77	0.00	-3.40	0.27	0.00	0.00	0.00	-2.51	2.14	-0.00	0.1
6020	6020:0	Origin	2.00	84.77	0.00	-3.16	10.82	0.00	0.00	0.00	-2.51	2.11	0.00	2.6
6020	6020:0	End	7.00	78.42	0.00	-3.16	10.82	0.00	0.00	0.00	-3.28	2.79	0.00	2.6
6020	6020:AW2	Origin	12.00	72.11	0.00	-2.83	24.78	0.00	0.00	0.00	-3.28	2.79	0.00	4.9
6020	6020:0	End	17.00	65.86	0.00	-2.50	57.12	0.00	0.00	0.00	-6.81	6.47	0.00	9.4
6020	6020:1	Origin	17.00	65.86	0.00	-2.50	57.12	0.00	0.00	0.00	-7.32	7.01	0.00	9.4
6020	6020:2	End	20.00	62.16	0.00	-2.31	78.17	0.00	0.00	0.00	-8.08	7.42	0.00	11.8
6020	6020:SW	Origin	20.00	62.16	0.00	-2.12	100.43	0.00	0.00	0.00	-8.08	7.42	0.00	13.9
6020	6020:0	End	23.00	58.52	0.00	-2.12	100.43	0.00	0.00	0.00	-9.43	9.09	0.00	17.5
6020	6020:SW	Origin	23.00	58.52	0.00	-1.86	141.33	0.00	0.00	0.00	-9.43	9.09	0.00	20.6
6020	6020:0	End	27.50	53.18	0.00	-1.86	141.33	0.00	0.00	0.00	-10.36	9.69	0.00	25.4
6020	6020:1	Origin	27.50	53.18	0.00	-1.86	141.33	0.00	0.00	0.00	-10.36	9.69	0.00	25.4
6020	6020:1	End	30.00	47.95	0.00	-1.61	184.93	0.00	0.00	0.00	-12.76	13.48	0.00	28.4
6020	6020:1	Origin	30.00	47.95	0.00	-1.35	252.36	0.00	0.00	0.00	-13.74	14.04	0.00	28.4
6020	6020:1	End	37.00	42.39	0.00	-1.35	252.36	0.00	0.00	0.00	-13.74	14.04	0.00	28.4
6020	6020:1	Origin	37.00	42.39	0.00	-1.18	301.48	0.01	0.00	0.00	-13.74	14.04	0.00	28.4
6020	6020:1	End	40.50	38.64	0.00	-1.18	301.48	0.01	0.00	0.00	-14.59	14.48	0.00	28.4
6020	6020:1	Origin	40.50	38.64	0.00	-1.18	301.48	0.01	0.00	0.00	-14.59	14.48	0.00	28.4

Equilibrium Joint Positions and Reactions:

Joint Label	X-Displ (ft)	Y-Displ (ft)	Z-Displ (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Moment (ft-k)	Y-Moment (ft-k)	Z-Moment (ft-k)	X-Disp (ft)	Y-Disp (ft)	Z-Disp (ft)
6020:G	0	0	0	0	0	0	0	0	0	0	0	0
6020:HT	7.16	-4.052e-005	-0.2575	0.0000	5.2643	0.0000	7.05	-4.069e-005	110.7	0	0	0
6020:MT1	6.867	-4.023e-005	-0.2575	0.0000	5.2642	0.0000	6.967	-4.024e-005	106.7	0	0	0
6020:MT2	5.95	-3.793e-005	-0.2169	0.0000	5.2642	0.0000	6.967	-4.024e-005	106.7	0	0	0
6020:SW	4.962	-3.493e-005	-0.1715	0.0000	5.1453	0.0000	4.962	-3.493e-005	99.78	0	0	0
6020:TC	4.157	-3.183e-005	-0.1362	0.0000	4.8606	0.0000	4.157	-3.183e-005	78.86	0	0	0
6020:BC	3.148	-2.673e-005	-0.09357	0.0000	4.6370	0.0000	3.148	-2.673e-005	56.91	0	0	0
6020:PC	2.226	-2.073e-005	-0.05795	0.0000	4.1441	0.0000	2.226	-2.073e-005	34.94	0	0	0
6020:SC	1.242	-1.473e-005	-0.3173	0.0000	3.1453	0.0000	1.242	-1.473e-005	11.94	0	0	0
SWL:End	4.952	-3.493e-005	-0.1715	0.0000	5.1453	0.0002	4.952	-3.493e-005	97.83	-0.684	87.83	0
SWL:Mid	4.954	-3.438e-005	-0.1724	0.0131	5.1453	0.0423	4.954	-3.438e-005	97.83	-0.684	87.83	0
TCR:End	4.157	-3.183e-005	-0.1362	0.0000	4.9806	0.0000	4.157	-3.183e-005	78.86	0	0	0
TCR:Mid	4.157	-3.183e-005	-0.1362	0.0000	4.9807	-0.1996	4.173	-3.183e-005	78.86	0	0	0
TCR:Start	4.157	-3.183e-005	-0.1362	0.0000	4.9806	0.0000	4.157	-3.183e-005	78.86	0	0	0
MC:End	3.148	-2.673e-005	-0.09357	0.0000	4.6370	0.0000	3.148	-2.673e-005	56.91	0	0	0
MC:Mid	3.148	-2.673e-005	-0.09357	0.0000	4.6370	0.0000	3.148	-2.673e-005	56.91	0	0	0
MC:Start	3.148	-2.673e-005	-0.09357	0.0000	4.6370	0.0000	3.148	-2.673e-005	56.91	0	0	0
ML:End	3.148	-2.673e-005	-0.09357	0.0000	4.6370	0.0000	3.148	-2.673e-005	56.91	0	0	0
ML:Mid	3.148	-2.673e-005	-0.09357	0.0000	4.6370	0.0000	3.148	-2.673e-005	56.91	0	0	0
ML:Start	3.148	-2.673e-005	-0.09357	0.0000	4.6370	0.0000	3.148	-2.673e-005	56.91	0	0	0
BC:End	2.226	-2.073e-005	-0.05795	0.0000	4.1441	0.0000	2.226	-2.073e-005	34.94	0	0	0
BC:Mid	2.242	-4.708e-005	-0.06739	0.0089	4.1442	-0.1888	2.242	-4.708e-005	34.94	0	0	0
BC:Start	2.242	-4.708e-005	-0.06739	0.0089	4.1442	-0.1888	2.242	-4.708e-005	34.94	0	0	0
SC:End	2.242	-4.708e-005	-0.06739	0.0089	4.1441	0.0000	2.242	-4.708e-005	34.94	0	0	0
SC:Mid	2.242	-4.708e-005	-0.06739	0.0089	4.1442	0.1887	2.242	-4.708e-005	34.94	0	0	0

Joint Support Reactions:

Joint Label	X-Force (kips)	Y-Force (kips)	Z-Force (kips)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Moment (ft-k)	Y-Moment (ft-k)	Z-Moment (ft-k)	X-Disp (ft)	Y-Disp (ft)	Z-Disp (ft)	
6020:G	-20.976	0.0	-0.000	0.0	40.818	0.0	0.0	-0.001	0.0	-1435.627	0.0	-0.001	0.0

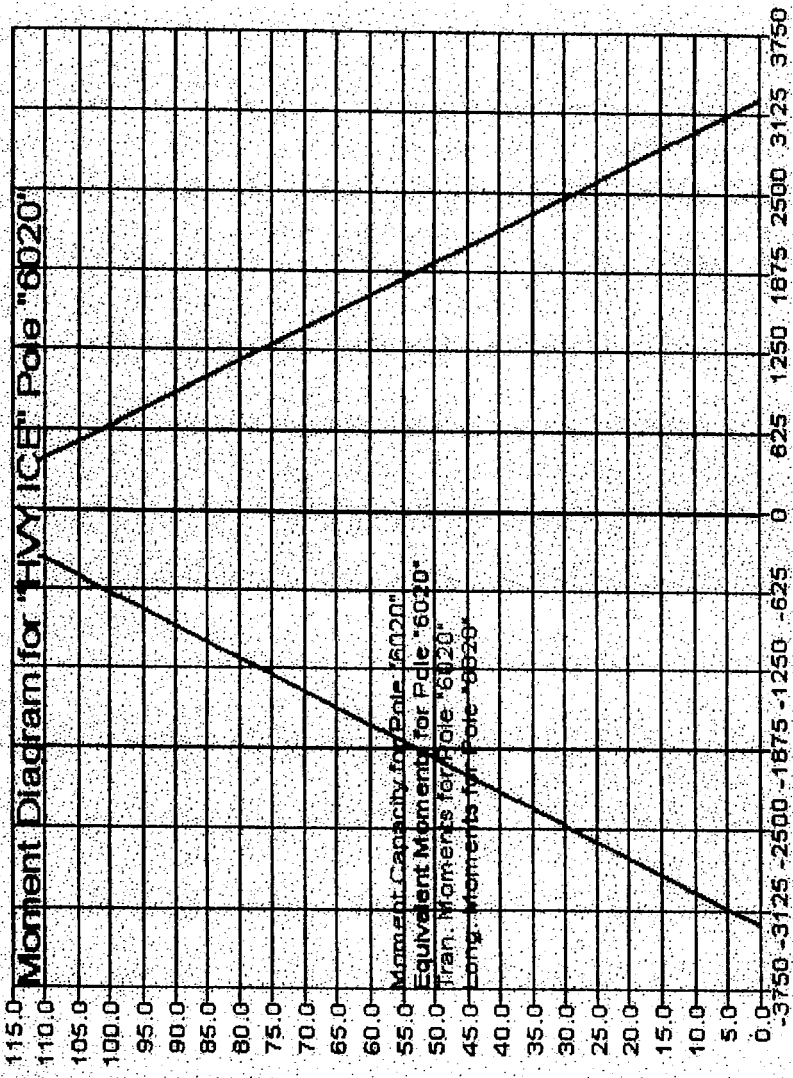


Moment Diagram for "EXT WIND" Pole "6020"

Decalated Laminated Wood Pole Design:

Element Label	Joint Label	Joint Position (ft)	Rad. Dist. (ft)	Trans. Dist. (ft)	Long. Dist. (ft)	Vert. Dist. (ft)	Trans. Moment (ft-k)	Long. Moment (ft-k)	Radial Force (kips)	Trans. Shear (kips)	Long. Shear (kips)	Design
6020	6020:1	Origin	0.00	-0.00	84.60	-3.21	0.00	0.00	-0.00	-0.14	0.00	-0.13
6020	6020:1	End	2.00	-0.00	82.40	-3.11	0.00	-0.27	-0.00	-2.53	0.00	-0.13
6020	6020:2	Origin	7.00	-0.00	76.90	-2.86	0.00	-10.64	-0.00	-2.53	0.00	-2.08
6020	6020:2	End	17.00	-0.00	71.40	-2.60	0.00	-24.94	-0.00	-3.30	0.00	-2.75
6020	6020:3	Origin	32.00	-0.00	65.90	-2.35	0.00	-54.35	-0.00	-3.30	0.00	-2.75
6020	6020:3	End	42.00	-0.00	62.67	-2.20	0.00	-56.32	-0.00	-6.87	0.00	-6.39
6020	6020:4	Origin	57.00	-0.00	59.43	-2.06	0.00	-77.11	-0.00	-7.57	0.00	-6.93
6020	6020:4	End	67.00	-0.00	54.81	-1.84	0.00	-99.12	-0.00	-8.13	0.00	-7.34
6020	6020:5	Origin	82.00	-0.00	49.88	-1.63	0.00	-136.34	-0.00	-9.55	0.00	-8.27
6020	6020:5	End	92.00	-0.00	44.73	-1.41	0.00	-176.33	-0.00	-10.46	0.00	-8.88
6020	6020:6	Origin	107.00	-0.00	41.21	-1.26	0.01	-227.82	-0.00	-13.08	0.00	-10.30
6020	6020:6	End	117.00	-0.00	41.21	-1.26	0.01	-265.84	-0.00	-14.04	0.00	-10.86
6020	6020:7	Origin	132.00	-0.00	41.21	-1.26	0.01	-265.84	-0.00	-14.86	0.00	-11.33
6020	6020:7	End	142.00	-0.00	41.21	-1.26	0.01	-265.84	-0.00	-14.86	0.00	-11.33

Laminated Wood Systems - nesc_6020



Moment (ft-k)

Detailed Laminated Wood Pole Usage:

Element Label	Joint Label	Joint Position	Dist. (ft)	Max. Trans. Dist. (in)	Long. Dist. (in)	Vert. Dist. (in)	Trans. Dist. (ft-k)	Long. Dist. (ft-k)	Y-axis Moment (ft-k)	Z-axis Moment (ft-k)	Long. Usage (ft-k)	%
6020	6020:1	Origin	0.00	0.00	0.00	-0.02	0.00	0.00	-0.0	-0.14	-0.00	0.0
6020	6020:2	End	2.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-0.14	-0.00	0.0
6020	6020:3	Origin	2.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-2.66	-0.00	0.0
6020	6020:4	End	7.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-2.66	-0.00	0.0
6020	6020:5	Origin	7.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-3.43	-0.00	0.0
6020	6020:6	End	12.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-3.43	-0.00	0.0
6020	6020:7	Origin	12.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-7.26	-0.00	0.0
6020	6020:8	End	17.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-7.26	-0.00	0.0
6020	6020:9	Origin	17.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-7.96	-0.00	0.0
6020	6020:10	End	20.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-7.96	-0.00	0.0
6020	6020:11	Origin	20.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-8.52	-0.00	0.0
6020	6020:12	End	23.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-8.52	-0.00	0.0
6020	6020:13	Origin	23.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-12.32	-0.00	0.0
6020	6020:14	End	27.50	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-12.32	-0.00	0.0
6020	6020:15	Origin	27.50	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-13.23	-0.00	0.0
6020	6020:16	End	32.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-13.23	-0.00	0.0
6020	6020:17	Origin	32.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-13.23	-0.00	0.0
6020	6020:18	End	37.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-13.23	-0.00	0.0
6020	6020:19	Origin	37.00	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-20.24	-0.00	0.0
6020	6020:20	End	40.50	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-20.24	-0.00	0.0
6020	6020:21	Origin	40.50	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-21.05	-0.00	0.0
6020	6020:22	End	40.50	0.00	-0.02	-0.02	-0.00	-0.00	-0.0	-21.05	-0.00	0.0

Summary of Laminated Wood Pole Usages:

Low Pole Maximum Load Usage	Maximum Load Case Segment Number	Weight (lbs)
6020	81.44 EXT. WIND t	25 24925.9

Summary of Davit Usages:

Davit Maximum Load Case Segment Label	Segment Number	Weight (lbs)
SNR	5.14	RVY ICE 1 69.0
SNL	5.14	RVY ICE 1 69.0
TCR	8.46	RVY ICE 1 69.0
TCL	8.46	RVY ICE 1 69.0
MCR	8.46	RVY ICE 1 69.0
MCL	8.46	RVY ICE 1 69.0
BCR	8.46	RVY ICE 1 69.0
BCL	8.46	RVY ICE 1 69.0

*** Maximum Stress Summary for Each Load Case

Summary of Maximum Stresses by Load Case:

Load Case Maximum Element Usage %	Element Label	Element Type
NESC RVY t	28.95	6020 Concrete Pole
NESC RVY l	20.14	6020 Concrete Pole
EXT. WIND t	80.01	6020 Concrete Pole
EXT. WIND l	80.01	6020 Concrete Pole
RVY ICE	8.46	BCL Davit

Summary of Laminated Wood Pole Usages by Load Case:

Load Case Maximum Element Usage %	Wood Pole Segment Label	Segment Number
NESC RVY t	38.95	6020 25
NESC RVY l	28.13	6020 25
EXT. WIND t	81.44	6020 25
EXT. WIND l	80.01	6020 25
RVY ICE	0.00	6020 15

Summary of Davit Usages by Load Case:

Load Case Maximum Element Usage %	Davit Segment Label	Segment Number
NESC RVY t	6.06	BCL 1
NESC RVY l	6.06	BCR 1
EXT. WIND t	5.03	TCR 1
EXT. WIND l	2.77	BCR 1
RVY ICE	8.46	BCL 1

Summary of Insulator Usages:

Insulator Maximum Element Usage %	Insulator Label	Load Case Weight (lbs)
SNR Suspension	2.40	RVY ICE 3.0
SNL Suspension	2.40	RVY ICE 3.0
TCR Suspension	4.06	RVY ICE 200.0
TCL Suspension	4.06	RVY ICE 200.0
MCR Suspension	4.06	RVY ICE 200.0
MCL Suspension	4.06	RVY ICE 200.0
BCR Suspension	4.06	RVY ICE 200.0
BCL Suspension	4.06	RVY ICE 200.0
RVY WIND t	6.72	EXT. WIND t 3.0
RVY WIND l	6.72	EXT. WIND l 3.0

*** Weight of structure (lbs):
 Weight of Davit Arms: 552.0
 Weight of Laminated Wood Poles: 24925.9
 Weight of Suspensions: 28693.9
 Total: 32121.8

*** End of Report