PRINCIPALS
Donald R. Buettner, Ph.D.
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COMPUTERIZED STRUCTURAL DESIGN, INC.

CONSULTING ENGINEERS

ASSOCIATES
John G. Fitzgerald
James R. Michalek
Thomas W. Whittow
James C. LaBelle, Doc.E.
Steven H. Schultz

April 21, 1992

Mr. John Waddington
8415 North Foxcroft Drive
Fox Point, WI 53217

RE: Roof Rafter Analysis
CSD 920341

Dear Mr. Waddington:

This letter is written to report my findings relative to the subject project. At your request, I analyzed the structural capacity of the roof rafters at your residence. This analysis included two site visits for gathering field measurements.

With regard to the garage rafters, my analysis shows that they are adequate to support the code prescribed live load of 30 psf. This analysis assumes the rafters are Douglas Fir-Larch No. 1 with an allowable bending stress of 1495 psi. My calculations are enclosed.

If you have any questions regarding this letter or if we may be of further service, please call me.

Sincerely,

COMPUTERIZED STRUCTURAL DESIGN, INC.

Brian M. Juedes

Brian M. Juedes, P.E.

BMJ/jrc

Encl.

8989 N. Port Washington Road • Milwaukee, WI 53217 • Phone 414-351-5588 • FAX 414-351-4617
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Milwaukee, WI 53217
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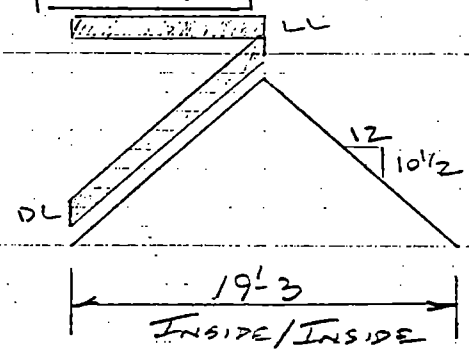
Project: ROOF RAFTERS
Job No. 920341 By BMJ
Date 13 APR 92 Page 1 of 2

SYSTEM ANALYSIS

GARAGE: 1½" x 5½" TER. RAFTERS @ 24" O.C.



DEAD LOAD:

3 ROOFING LAYERS	3(2.5)
3/4" ROOF BDS	2.5
2x6'S @ 24" O.C.	1.0
	11.0 PSF

LIVE LOAD:

SNOW, ZONE 2 30 PSF

UNIFORM BUILDING CODE

$$w_{pig} = 2.0\left(30 + \frac{11.0}{\cos 41.2^\circ}\right) = 89.2\ \#/FT$$

$$M = 89.2\left(\frac{9.625}{8}\right)^2 = 1033\ \#\text{-}'$$

$$S = \tfrac{1}{6}(1.5)(5.5)^2 = 7.56\ IN.^3$$

$$f_b = \frac{1033(12)}{7.56} = 1640\ PSI$$

ASSUME
DOUG-FIR No. 1 REF. $F_b = 1495$ PSI
LDF = 1.15

$$F_b = 1.15(1495) = 1719\ PSI$$

$$1640 < 1719\ PSI \quad \underline{OK}$$

$$\Delta_{LL} = \frac{.1(695)(12.5)^2(1728)}{20.3(1700000)} = 0.556\ IN$$

$$= L/270 > L/240 \quad \underline{OK}$$

DOUG. FIR-L

Douglas Fir-Larch Table 1

SIZE-ADJUSTED VALUES* FOR WESTERN DIMENSION LUMBER

2" to 4" thick by 2" and wider

Douglas Fir Western Larch

Apply other adjustments, Tables C through G, when appropriate. Refer to Page 8.

Grades described in Western Lumber Grading Rules '91, sections 40.00, 41.00, 42.00 & 62.00

Size 2" to 4" thick by:	Grade	Extreme Fiber Stress In Bending "Fb" 2" & 3" thick single	2" & 3" thick repetitive	4" thick single**	Tension Parallel to Grain "Ft"	Horizontal Shear "Fv"	Compression Perpendicular "Fc⊥"	Compression Parallel to Grain "Fc//"	Modulus of Elasticity "E"
2"-4" wide (2x2, 2x3, 3x3, & 3x4)	Select Structural	2175	2500	2175	1500	95	625	1955	1,900,000
	No. 1 & Btr	1725	1985	1725	1165	95	625	1725	1,800,000
	No. 1	1500	1725	1500	1015	95	625	1670	1,700,000
	No. 2	1315	1510	1315	865	95	625	1495	1,600,000
	No. 3	750	865	750	490	95	625	865	1,400,000
	Construction	1000	1150	1000	650	95	625	1600	1,500,000
	Standard	550	635	550	375	95	625	1350	1,400,000
	Utility (2x2, 2x3, 3x3)	110	125		70	95	625	525	1,300,000
	Utility (2x4, 3x4, 4x4)	275	315	275	175	95	625	875	1,300,000
	Stud	745	855	745	495	95	625	865	1,400,000
6" wide (2x6, 3x6 & 4x6)	Select Structural	1885	2170	1885	1300	95	625	1870	1,900,000
	No. 1 & Btr	1495	1720	1495	1010	95	625	1650	1,800,000
	No. 1	1300	1495	1300	880	95	625	1595	1,700,000
	No. 2	1140	1310	1140	750	95	625	1430	1,600,000
	No. 3	650	750	650	425	95	625	825	1,400,000
	Stud	675	775	675	450	95	625	825	1,400,000
8" wide (2x8, 3x8 & 4x8)	Select Structural	1740	2000	1885	1200	95	625	1785	1,900,000
	No. 1 & Btr	1380	1585	1495	930	95	625	1575	1,800,000
	No. 1	1200	1380	1300	810	95	625	1525	1,700,000
	No. 2	1050	1210	1140	690	95	625	1365	1,600,000
	No. 3	600	690	650	390	95	625	790	1,400,000
10" wide (2x10, 3x10 & 4x10)	Select Structural	1595	1835	1740	1100	95	625	1700	1,900,000
	No. 1 & Btr	1265	1455	1380	855	95	625	1500	1,800,000
	No. 1	1100	1265	1200	745	95	625	1450	1,700,000
	No. 2	965	1105	1050	635	95	625	1300	1,600,000
	No. 3	550	635	600	360	95	625	750	1,400,000
12" wide (2x12, 3x12 & 4x12)	Select Structural	1450	1670	1595	1000	95	625	1700	1,900,000
	No. 1 & Btr	1150	1325	1265	775	95	625	1500	1,800,000
	No. 1	1000	1150	1100	675	95	625	1450	1,700,000
	No. 2	875	1005	965	575	95	625	1300	1,600,000
	No. 3	500	575	550	325	95	625	750	1,400,000
14" & wider (2x14 & wider, 3x14 & wider & 4x14 & wider)	Select Structural	1305	1500	1450	900	95	625	1530	1,900,000
	No. 1 & Btr	1035	1190	1150	700	95	625	1350	1,800,000
	No. 1	900	1035	1000	610	95	625	1305	1,700,000
	No. 2	790	905	875	520	95	625	1170	1,600,000
	No. 3	450	520	500	295	95	625	675	1,400,000

* Design values in pounds per square inch.

** **If using 4" thick lumber** (4x6, 4x8, 4x10, 4x12, 4x14 and wider) **in repetitive systems**, then multiply the 4" thick single F_b value by 1.15 to yield the repetitive member value. **Example:** DF-L No. 1 4x8 repetitive F_b is 1300 X 1.15 = 1495 psi

Note: *Due to rounding to the nearest 5, some numbers are slightly different (in this table) than when the SIZE and REPETITIVE MEMBER adjustments (from Tables A and B in the WWPA Product Use Manual) are applied to BASE VALUES for dimension lumber.*

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April 21, 1992

Mr. John Waddington
8415 North Foxcroft Drive
Fox Point, WI 53217

Re: Roof Rafter Analysis
CSD 920341

Dear Mr. Waddington:

This letter is written to report my findings relative to the subject project. At your request, I analyzed the structural capacity of the roof rafters at your residence. This analysis included two site visits for gathering field measurements.

With regard to the house rafters, my analysis shows that they are inadequate to support the code prescribed live load of 30 psf. This conclusion was reached after several different analysis trials.

My first analysis assumed simple span rafters. This analysis produced a bending stress of 2069 psi which is approximately 20% over the allowable 1719 psi.

My second analysis attempted to take advantage of the steep roof pitch for snow load reduction. The American Society of Civil Engineers Standard 7-88 "Minimum Design Loads for Buildings and other Structures" contains a roof load calculation procedure which accounts for roof slope. This procedure also accounts for roof surface roughness, wind exposure and thermal effects. With this procedure, I calculated a design roof load of 19.1 psf in lieu of the code prescribed 30 psf. In my opinion, this 19.1 psf value is more representative of the actual snow loading to your home. Unfortunately, your local building inspector and the State of Wisconsin Dwelling Code officials have yet to recognize this or a similar procedure. Therefore, while your home rafters are adequate to support a live load of 19.1 psf this is not acceptable to your local building officials.

My third analysis included the second floor kneewalls, ceiling joists and floor joists. The second floor kneewalls and ceiling joists act to brace the roof rafters. The second floor joists act to support the kneewalls. This comprehensive analysis was a very representative structural model of your roof rafters. My analysis utilized a plane frame structural analysis computer program to solve the stiffness dependent problem. The results are dependent on the stiffeners of the rafters versus the stiffness of the floor joists. If the rafters are stiffer, the kneewalls act as tension members to support the floor joists. If the floor joists are stiffer, the kneewalls act as compression members to support the rafters.

Based on my field measurements, the second floor joists are 2 x 6's at 16" o.c. With this information, the analysis revealed that the floor joists act to support the roof rafters such that the roof rafters can support 30 psf. Unfortunately, at full loading the floor joists are overstressed. Clearly, this analysis accurately models the actual structural behavior of your home but it does not provide an acceptable load path for the code prescribed loadings.

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This analysis exhausted our methods for proving the house rafters adequate. Therefore, the structure needs either to be reinforced or reroofed to satisfy the local building officials. My calculations are enclosed.

If you have any questions, please call me.

Sincerely,

COMPUTERIZED STRUCTURAL DESIGN, INC.

Brian M. Juedes, P.E.

BMJ/jrc

Encl.

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8989 N. Port Washington Rd.
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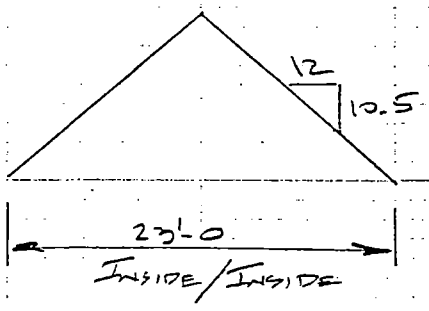
Project: Roof Rafters
Job No. 920341 By BMJ
Date 13 APR 92 Page 1 of

HOME: 1½" x 5¼" Tr. Rafters @ 19.2" O.C.



DEAD LOAD:

3 Roofing Layers	3(2.5)
¾" Roof Bdg.	2.5
2x6's @ 19" O.C.	1.25
	11.25 psf

LIVE LOAD:

Snow	30 psf

Uniform Dwelling Code

$$w_{proj} = \frac{19.2}{12}\left(30 + \frac{11.25}{\cos 41.2}\right) = 71.9 \ \#/FT.$$

$$M = 71.9\,\frac{(11.5)^2}{8} = 1133 \ \#\text{-}'$$

$$S = \tfrac{1}{6}(1.5)(5.25)^2 = 6.89 \ IN.^3$$

$$f_b = \frac{1133(12)}{6.89} = 2069 \ PSI$$

Assume
Douglas-Fir No. 1 Ref. $F_b = 1495$ PSI

LDF = 1.15

$$F_b = 1.15(1495) = 1719 \ PSI$$

2069 > 1719 NG

2x Rafters Are Overstressed As Ceiling Rafters

Table 7-38 For Snow

$$P_s = 0.7(L_e)(C_s)\,I\,p_g\,C_s$$
$$= 0.7(1.1)(1.0)(1.0)(35)(.71)$$
$$= 19.1 \ PSF \qquad M = 901 \ \#\text{-}' \qquad f_b = 1569 \ PSI < 1719$$

OK

COMPUTERIZED STRUCTURAL DESIGN, INC.
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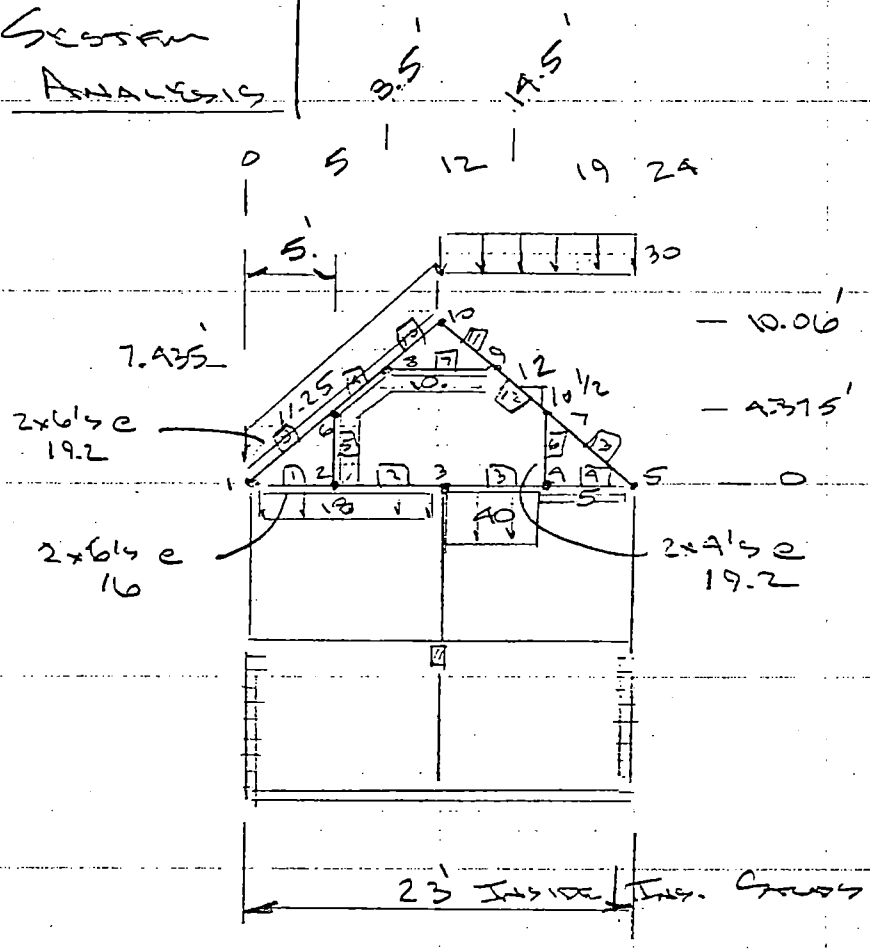
Project: Roof Rafters
Job No. 920341 By: SMJ
Date: 13 Aug 92 Page 2 of

System Analysis



Ceiling & Wall Dead Load:

Plaster 1" on Wood Lath	10.0 psf
2x4's @ 16	1.0
	11.0

Floor Dead Load:

Hardwood ½"	4.0
2x6's @ 16	1.6
Plaster	10.0
	15.6
Say	16.0 psf

Floor Live Load
40 psf

Attic Live Load
5 psf w/o Storage
20 psf w/ Storage

- Analyze Rafters, Kneewalls, Ceiling Ties, and Second Floor Joists as a System.
- Use KFX to Rel Member Ends for Accurate Model
- See Attached Computer Run Frame Analysis Top 19.2" o.c.

Roof Rafters:

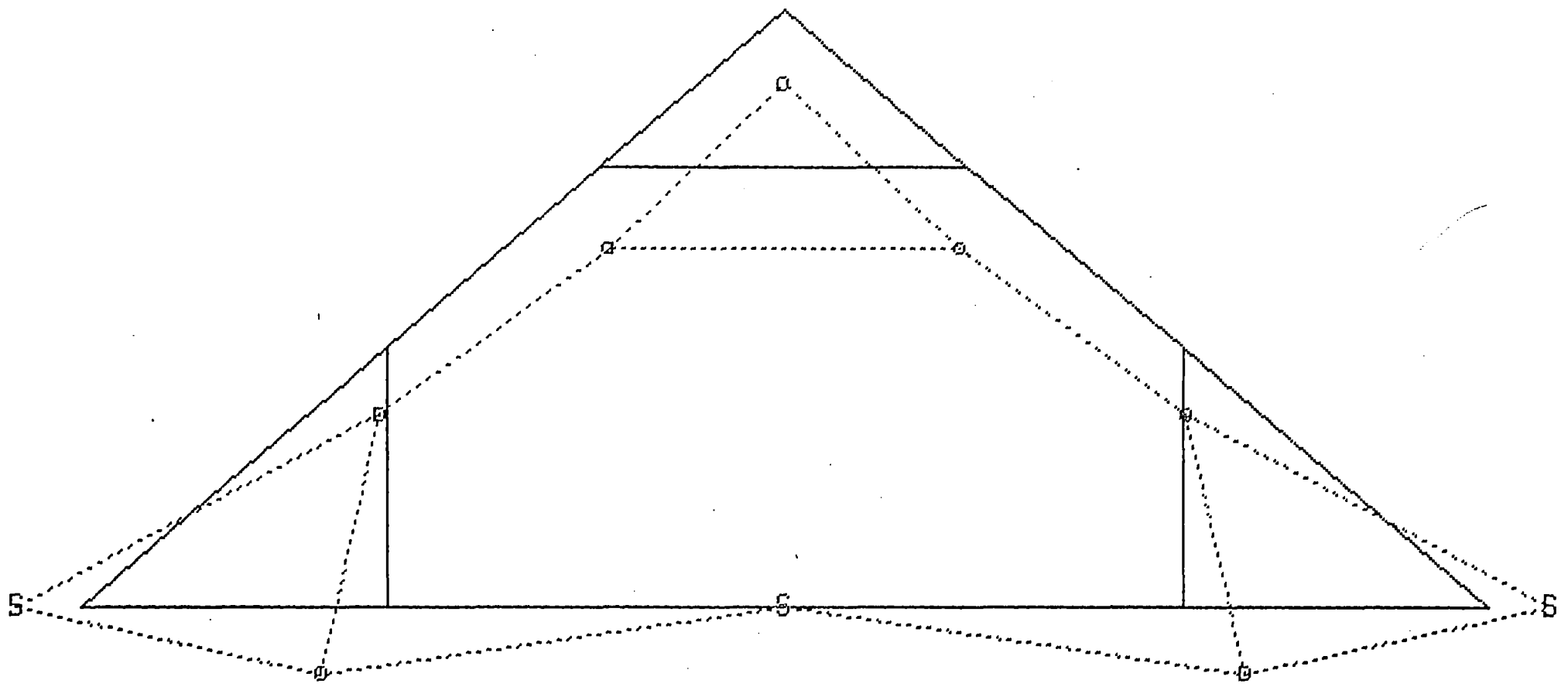
Mem 4: $M = 651^{\#-1}$ $f_b = 1134$ psi < 1719 psi OK

Floor Joists:

Mem 2: $M = 2296\left(\frac{16}{19.2}\right) = 1905^{\#-1}$ $f_b = 3024$ psi NG

**LOAD DL MAGN 11.516

2.7711 HORIZONTAL FT UNITS PER INCH
2.7711 VERTICAL FT UNITS PER INCH
ROTATION: Z 0.0 Y 0.0 X 0.0



ROOF RAFTERS

4

DOUG. FIR-L

Douglas Fir-Larch Table 1

SIZE-ADJUSTED VALUES* FOR WESTERN DIMENSION LUMBER

2" to 4" thick by 2" and wider

Douglas Fir-Western Larch

Apply other adjustments, Tables C through G, when appropriate. Refer to Page 8.

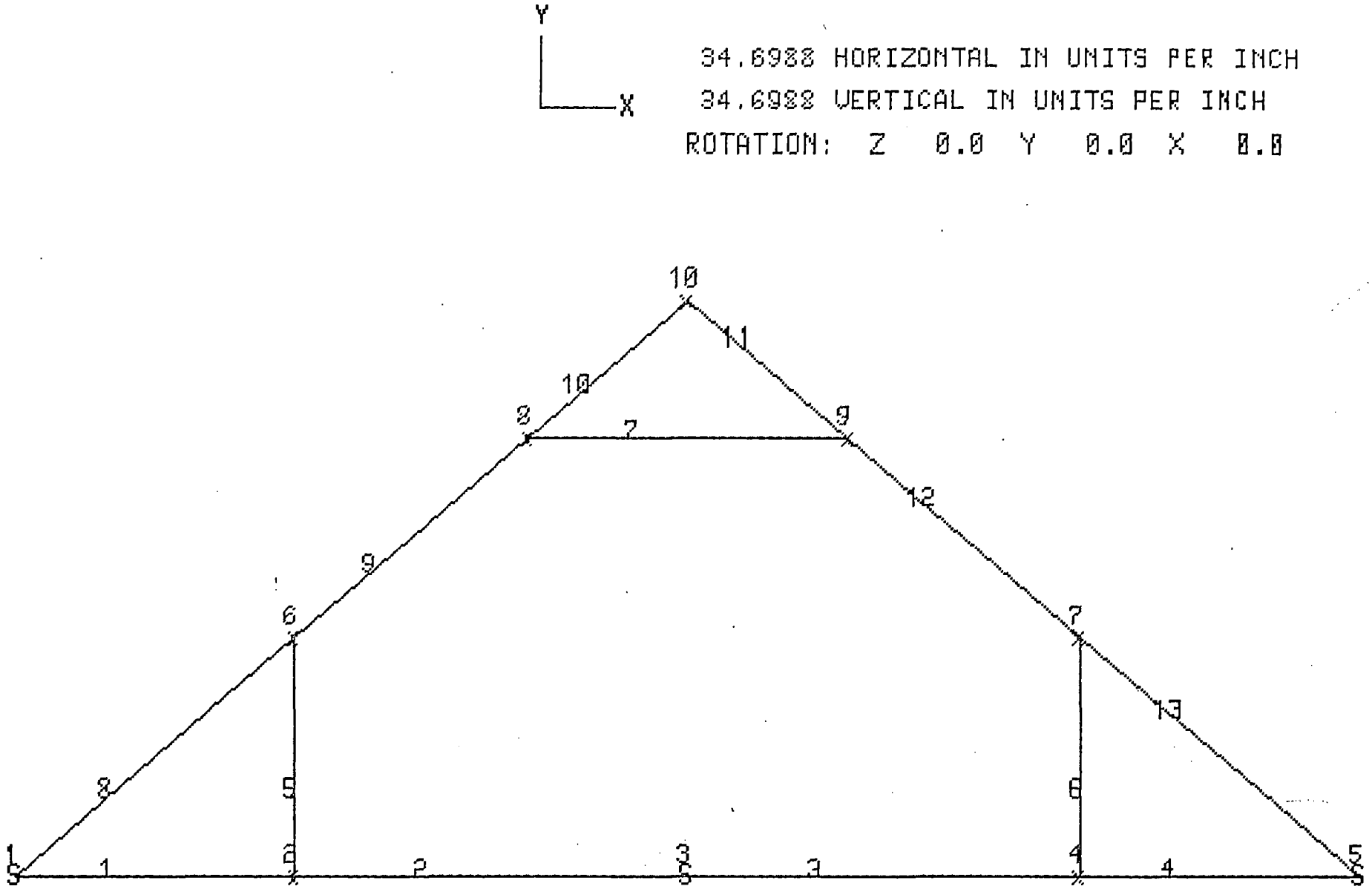
Grades described in Western Lumber Grading Rules '91, sections 40.00, 41.00, 42.00 & 62.00

Size 2" to 4" thick by:	Grade	Extreme Fiber Stress in Bending "Fb" 2" & 3" thick single	2" & 3" thick repetitive	4" thick single**	Tension Parallel to Grain "Ft"	Horizontal Shear "Fv"	Compression Perpendicular "Fc⊥"	Compression Parallel to Grain "Fc//"	Modulus of Elasticity "E"
2"-4" wide (2x2, 2x3, 3x3, & 3x4)	Select Structural	2175	2500	2175	1500	95	625	1955	1,900,000
	No. 1 & Btr	1725	1985	1725	1165	95	625	1725	1,800,000
	No. 1	1500	1725	1500	1015	95	625	1670	1,700,000
	No. 2	1315	1510	1315	865	95	625	1495	1,600,000
	No. 3	750	865	750	490	95	625	865	1,400,000
	Construction	1000	1150	1000	650	95	625	1600	1,500,000
	Standard	550	635	550	375	95	625	1350	1,400,000
	Utility (2x2, 2x3, 3x3)	110	125		70	95	625	525	1,300,000
	Utility (2x4, 3x4, 4x4)	275	315	275	175	95	625	875	1,300,000
	Stud	745	855	745	495	95	625	865	1,400,000
6" wide (2x6, 3x6 & 4x6)	Select Structural	1885	2170	1885	1300	95	625	1870	1,900,000
	No. 1 & Btr	1495	1720	1495	1010	95	625	1650	1,800,000
	No. 1	1300	1495	1300	880	95	625	1595	1,700,000
	No. 2	1140	1310	1140	750	95	625	1430	1,600,000
	No. 3	650	750	650	425	95	625	825	1,400,000
	Stud	675	775	675	450	95	625	825	1,400,000
8" wide (2x8, 3x8 & 4x8)	Select Structural	1740	2000	1885	1200	95	625	1785	1,900,000
	No. 1 & Btr	1380	1585	1495	930	95	625	1575	1,800,000
	No. 1	1200	1380	1300	810	95	625	1525	1,700,000
	No. 2	1050	1210	1140	690	95	625	1365	1,600,000
	No. 3	600	690	650	390	95	625	790	1,400,000
10" wide (2x10, 3x10 & 4x10)	Select Structural	1595	1835	1740	1100	95	625	1700	1,900,000
	No. 1 & Btr	1265	1455	1380	855	95	625	1500	1,800,000
	No. 1	1100	1265	1200	745	95	625	1450	1,700,000
	No. 2	965	1105	1050	635	95	625	1300	1,600,000
	No. 3	550	635	600	360	95	625	750	1,400,000
12" wide (2x12, 3x12 & 4x12)	Select Structural	1450	1670	1595	1000	95	625	1700	1,900,000
	No. 1 & Btr	1150	1325	1265	775	95	625	1500	1,800,000
	No. 1	1000	1150	1100	675	95	625	1450	1,700,000
	No. 2	875	1005	965	575	95	625	1300	1,600,000
	No. 3	500	575	550	325	95	625	750	1,400,000
14" & wider (2x14 & wider, 3x14 & wider & 4x14 & wider)	Select Structural	1305	1500	1450	900	95	625	1530	1,900,000
	No. 1 & Btr	1035	1190	1150	700	95	625	1350	1,800,000
	No. 1	900	1035	1000	610	95	625	1305	1,700,000
	No. 2	790	905	875	520	95	625	1170	1,600,000
	No. 3	450	520	500	295	95	625	675	1,400,000

* Design values in pounds per square inch.

** **If using 4" thick lumber** (4x6, 4x8, 4x10, 4x12, 4x14 and wider) **in repetitive systems**, then multiply the 4" thick single F_b value by 1.15 to yield the repetitive member value. **Example:** DF-L No. 1 4x8 repetitive F_b is 1300 X 1.15 = 1495 psi

Note: *Due to rounding to the nearest 5, some numbers are slightly different (in this table) than when the SIZE and REPETITIVE MEMBER adjustments (from Tables A and B in the WWPA Product Use Manual) are applied to BASE VALUES for dimension lumber.*



ROOF RAFTERS

PRI STR DATA

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****************************************
*  PROBLEM DATA FROM INTERNAL STORAGE  *
****************************************
```

JOB ID - 920341 JOB TITLE - ROOF RAFTERS

ACTIVE UNITS -	LENGTH	WEIGHT	ANGLE	TEMPERATURE	TIME
	FEET	LB	DEG	DEGF	SEC

********** STRUCTURAL DATA **********

JOINT COORDINATES----------/ STATUS---/

JOINT	X	Y	Z	CONDITION		
1	0.000	0.000	0.000	SUPPORT	ACTIVE	GLOBAL
2	5.000	0.000	0.000	FREE	ACTIVE	GLOBAL
3	11.500	0.000	0.000	SUPPORT	ACTIVE	GLOBAL
4	18.000	0.000	0.000	FREE	ACTIVE	GLOBAL
5	23.000	0.000	0.000	SUPPORT	ACTIVE	GLOBAL
6	5.000	4.375	0.000	FREE	ACTIVE	GLOBAL
7	18.000	4.375	0.000	FREE	ACTIVE	GLOBAL
8	8.500	7.435	0.000	FREE	ACTIVE	GLOBAL
9	14.500	7.435	0.000	FREE	ACTIVE	GLOBAL
10	11.500	10.060	0.000	FREE	ACTIVE	GLOBAL

JOINT RELEASES----------/ ELASTIC SUPPORT RELEASES /----------/

JOINT	FORCE	MOMENT	THETA 1	THETA 2	THETA 3	KFX	KFY	KFZ	KMX	KMY	KMZ	DAMPING
1	X		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	X		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

MEMBER INCIDENCES----------/ LENGTH------/ RELEASES----------/ STATUS--/

MEMBER	START	END	LOCAL COORD.	START FORCE	START MOMENT	END FORCE	END MOMENT			
1	1	2	5.000		Z			ACTIVE	PLANE	FRAME
2	2	3	6.500				Z	ACTIVE	PLANE	FRAME
3	3	4	6.500		Z			ACTIVE	PLANE	FRAME
4	4	5	5.000				Z	ACTIVE	PLANE	FRAME
5	2	6	4.375		Z		Z	ACTIVE	PLANE	FRAME
6	4	7	4.375		Z		Z	ACTIVE	PLANE	FRAME
7	8	9	6.000		Z		Z	ACTIVE	PLANE	FRAME
8	1	6	6.644		Z			ACTIVE	PLANE	FRAME
9	6	8	4.649					ACTIVE	PLANE	FRAME
10	8	10	3.986				Z	ACTIVE	PLANE	FRAME

11	10	9	3.986		ACTIVE	PLANE	FRAME
12	9	7	4.649		ACTIVE	PLANE	FRAME
13	7	5	6.644	Z	ACTIVE	PLANE	FRAME

MEMBER ELASTIC CONNECTIONS ----------

MEMBER	START						/ END					
	KX	KY	KZ	KMX	KMY	KMZ	KX	KY	KZ	KMX	KMY	KMZ
2	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.500E+04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
3	.500E+04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
7	.500E+04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00

MEMBER NONLINEAR CONNECTIONS----------

MEMBER	START CURVES						/ END CURVES					
	KX	KY	KZ	KMX	KMY	KMZ	KX	KY	KZ	KMX	KMY	KMZ

**** NO SHAPE DATA FOUND FOR MEMBER LIST SPECIFIED

MEMBER PROPERTIES----------/

MEMBER/SEG	TYPE	SEG.L	AX YD ID	AY ZD OD	AZ YC TH-PIPE	IX ZC SC	IY EY	IZ EZ	SY	SZ
1	PRISMATIC		0.069 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.001 0.000	0.000	0.000
2	PRISMATIC		0.069 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.001 0.000	0.000	0.000
3	PRISMATIC		0.069 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.001 0.000	0.000	0.000
4	PRISMATIC		0.069 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.001 0.000	0.000	0.000
5	PRISMATIC		0.036 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000
6	PRISMATIC		0.036 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000
7	PRISMATIC		0.036 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000
8	PRISMATIC		0.055 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.001 0.000	0.000	0.000
9	PRISMATIC		0.055 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.001 0.000	0.000	0.000
10	PRISMATIC		0.055	0.000	0.000	0.000	0.000	0.001	0.000	0.000

		0.000	0.000	0.000	0.000	0.000	0.000		
11	PRISMATIC	0.055	0.000	0.000	0.000	0.000	0.001	0.000	0.000
		0.000	0.000	0.000	0.000	0.000	0.000		
12	PRISMATIC	0.055	0.000	0.000	0.000	0.000	0.001	0.000	0.000
		0.000	0.000	0.000	0.000	0.000	0.000		
13	PRISMATIC	0.055	0.000	0.000	0.000	0.000	0.001	0.000	0.000
		0.000	0.000	0.000	0.000	0.000	0.000		

MEMBER END ECCENTRICITIES----------/ END JOINT SIZES-/

MEMBER	START X	START Y	START Z	END X	END Y	END Z	START	END

MEMBER CONSTANTS----------/

CONSTANT	STANDARD VALUE	DOMAIN	VALUE	MEMBER LIST
E	0.244800E+09	ALL		
G	0.000000E+00	ALL		
DENSITY	0.000000E+00	ALL		
CTE	0.100000E+01	ALL		
BETA	0.000000E+00	ALL		
POISSON	0.000000E+00	ALL		
DAMP STI	0.000000E+00	ALL		
DAMP INE	0.000000E+00	ALL		

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****************************************
*  END OF DATA FROM  INTERNAL STORAGE  *
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UNI IN
PRI MEM PROP

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*  PROBLEM DATA FROM INTERNAL STORAGE  *
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JOB ID - 920341 JOB TITLE - ROOF RAFTERS

ACTIVE UNITS -	LENGTH	WEIGHT	ANGLE	TEMPERATURE	TIME
	INCH	LB	DEG	DEGF	SEC

MEMBER PROPERTIES----------/

MEMBER/SEG	TYPE	SEG.L	AX YD ID	AY ZD OD	AZ YC TH-PIPE	IX ZC SC	IY EY	IZ EZ	SY	SZ
1	PRISMATIC		9.900 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	25.000 0.000	0.000	0.000
2	PRISMATIC		9.900 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	25.000 0.000	0.000	0.000
3	PRISMATIC		9.900 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	25.000 0.000	0.000	0.000
4	PRISMATIC		9.900 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	25.000 0.000	0.000	0.000
5	PRISMATIC		5.250 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	3.060 0.000	0.000	0.000
6	PRISMATIC		5.250 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	3.060 0.000	0.000	0.000
7	PRISMATIC		5.250 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	3.060 0.000	0.000	0.000
8	PRISMATIC		7.875 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	18.100 0.000	0.000	0.000
9	PRISMATIC		7.875 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	18.100 0.000	0.000	0.000
10	PRISMATIC		7.875 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	18.100 0.000	0.000	0.000
11	PRISMATIC		7.875 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	18.100 0.000	0.000	0.000
12	PRISMATIC		7.875 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	18.100 0.000	0.000	0.000
13	PRISMATIC		7.875 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	18.100 0.000	0.000	0.000

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****************************************
*  END OF DATA FROM  INTERNAL STORAGE  *
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PRI MEM CONSTANTS

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****************************************
*  PROBLEM DATA FROM INTERNAL STORAGE  *
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JOB ID - 920341       JOB TITLE - ROOF RAFTERS

ACTIVE UNITS -  LENGTH        WEIGHT        ANGLE       TEMPERATURE      TIME
                  INCH          LB            DEG           DEGF           SEC

MEMBER CONSTANTS-----------------------------------------------------------------------------------------------------/

CONSTANT   STANDARD VALUE   DOMAIN           VALUE       MEMBER LIST


   E         0.170000E+07    ALL

   G         0.000000E+00    ALL

DENSITY      0.000000E+00    ALL

  CTE        0.100000E+01    ALL

  BETA       0.000000E+00    ALL

POISSON      0.000000E+00    ALL

DAMP STI     0.000000E+00    ALL

DAMP INE     0.000000E+00    ALL



****************************************
*  END OF DATA FROM  INTERNAL STORAGE  *
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UNI FT
PRI LOADS

****************************************
*  PROBLEM DATA FROM INTERNAL STORAGE  *
****************************************

JOB ID - 920341       JOB TITLE - ROOF RAFTERS

ACTIVE UNITS -  LENGTH        WEIGHT        ANGLE       TEMPERATURE      TIME
                  FEET          LB            DEG           DEGF           SEC

         ********** LOADING DATA **********

LOADING - 1           ROOF DEAD LOAD 11.25 PSF                                STATUS - ACTIVE
```

MEMBER AND ELEMENT LOADS----------/

MEMBER/ELEMENT

8	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-18.000	LA	0.000	LB	1.000
9	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-18.000	LA	0.000	LB	1.000
10	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-18.000	LA	0.000	LB	1.000
11	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-18.000	LA	0.000	LB	1.000
12	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-18.000	LA	0.000	LB	1.000
13	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-18.000	LA	0.000	LB	1.000

LOADING - 2 CEILING AND WALL DEAD LOAD 11 PSF STATUS - ACTIVE

MEMBER AND ELEMENT LOADS----------/

MEMBER/ELEMENT

5	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-17.600	LA	0.000	LB	1.000
6	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-17.600	LA	0.000	LB	1.000
7	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-17.600	LA	0.000	LB	1.000
9	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-17.600	LA	0.000	LB	1.000
12	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-17.600	LA	0.000	LB	1.000

LOADING - 3 FLOOR DEAD LOAD 16 PSF STATUS - ACTIVE

MEMBER AND ELEMENT LOADS----------/

MEMBER/ELEMENT

1	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-25.600	LA	0.000	LB	1.000
2	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-25.600	LA	0.000	LB	1.000
3	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-25.600	LA	0.000	LB	1.000
4	UNIFORM LOAD	GLOB	FORCE	Y	FR	W	-25.600	LA	0.000	LB	1.000

LOADING - 4 ROOF LIVE LOAD 30 PSF STATUS - ACTIVE

MEMBER AND ELEMENT LOADS----------/

MEMBER/ELEMENT

8	UNIFORM LOAD	PROJ	FORCE	Y	FR	W	-48.000	LA	0.000	LB	1.000
9	UNIFORM LOAD	PROJ	FORCE	Y	FR	W	-48.000	LA	0.000	LB	1.000
10	UNIFORM LOAD	PROJ	FORCE	Y	FR	W	-48.000	LA	0.000	LB	1.000
11	UNIFORM LOAD	PROJ	FORCE	Y	FR	W	-48.000	LA	0.000	LB	1.000
12	UNIFORM LOAD	PROJ	FORCE	Y	FR	W	-48.000	LA	0.000	LB	1.000
13	UNIFORM LOAD	PROJ	FORCE	Y	FR	W	-48.000	LA	0.000	LB	1.000

LOADING - 5 FLOOR LIVE LOAD 40 PSF STATUS - ACTIVE

MEMBER AND ELEMENT LOADS----------/

MEMBER/ELEMENT

```
2          UNIFORM LOAD  GLOB  FORCE  Y  FR  W      -64.000  LA       0.000  LB       1.000
3          UNIFORM LOAD  GLOB  FORCE  Y  FR  W      -64.000  LA       0.000  LB       1.000

LOADING - 6            ATTIC LIVE LOAD 20 PSF                                        STATUS - ACTIVE

MEMBER AND ELEMENT LOADS-----------------------------------------------------------------------------------------/

MEMBER/ELEMENT

1          UNIFORM LOAD  GLOB  FORCE  Y  FR  W      -32.000  LA       0.000  LB       1.000
4          UNIFORM LOAD  GLOB  FORCE  Y  FR  W      -32.000  LA       0.000  LB       1.000

LOADING - DL + LL                                                                        STATUS - ACTIVE

         COMBINATION GIVEN -  1          1.000      2          1.000      3          1.000
                              4          1.000      5          1.000      6          1.000


****************************************
*  END OF DATA FROM  INTERNAL STORAGE  *
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LIST SUM OF REACTIONS


   ****************************
   *RESULTS OF LATEST ANALYSES*
   ****************************


    PROBLEM - 920341    TITLE - ROOF RAFTERS

    ACTIVE UNITS  FEET LB   DEG  DEGF SEC


   SUM OF REACTIONS ABOUT COORDINATE  X      0.000  Y      0.000  Z      0.000
                    /--------------------FORCE--------------------//-------------------MOMENT-------------------/
 LOADING                X FORCE          Y FORCE          Z FORCE        X MOMENT         Y MOMENT         Z MOMENT
 1                  -0.15104E-10       550.05        0.00000E+00      0.00000E+00      0.00000E+00       6325.6
 2                  -0.12891E-10       423.25        0.00000E+00      0.00000E+00      0.00000E+00       4867.3
 3                  -0.69145E-11       588.80        0.00000E+00      0.00000E+00      0.00000E+00       6771.2
 4                  -0.30319E-10       1104.0        0.00000E+00      0.00000E+00      0.00000E+00       12696.
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5	-0.10224E-10	832.00	0.00000E+00	0.00000E+00	0.00000E+00	9568.0
6	-0.35305E-11	320.00	0.00000E+00	0.00000E+00	0.00000E+00	3680.0
DL + LL	-0.78983E-10	3818.1	0.00000E+00	0.00000E+00	0.00000E+00	43908.

LIST REACT

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****************************
*RESULTS OF LATEST ANALYSES*
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PROBLEM - 920341 TITLE - ROOF RAFTERS

ACTIVE UNITS FEET LB DEG DEGF SEC

RESULTANT JOINT LOADS SUPPORTS

JOINT	LOADING		FORCE X FORCE	FORCE Y FORCE	FORCE Z FORCE	MOMENT X MOMENT	MOMENT Y MOMENT	MOMENT Z MOMENT
1	GLOBAL							
		1	0.00000	213.67694				0.00000
		2	0.00000	151.14386				0.00000
		3	0.00000	174.79507				0.00000
		4	0.00000	428.86414				0.00000
		5	0.00000	158.33334				0.00000
		6	0.00000	139.32716				0.00000
		DL + LL	0.00000	1266.14050				0.00000
3	GLOBAL							
		1	0.00000	122.69691				0.00000
		2	0.00000	120.95860				0.00000
		3	0.00000	239.20988				0.00000
		4	0.00000	246.27170				0.00000
		5	0.00000	515.33331				0.00000
		6	0.00000	41.34568				0.00000
		DL + LL	0.00000	1285.81604				0.00000
5	GLOBAL							
		1	0.00000	213.67694				0.00000
		2	0.00000	151.14386				0.00000
		3	0.00000	174.79507				0.00000
		4	0.00000	428.86414				0.00000
		5	0.00000	158.33334				0.00000
		6	0.00000	139.32716				0.00000
		DL + LL	0.00000	1266.14050				0.00000

LIST FOR

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****************************
*RESULTS OF LATEST ANALYSES*
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PROBLEM - 920341 TITLE - ROOF RAFTERS

ACTIVE UNITS FEET LB DEG DEGF SEC

MEMBER FORCES

MEMBER	LOADING	JOINT	FORCE AXIAL	FORCE SHEAR-Y	FORCE SHEAR-Z	MOMENT TORSIONAL	MOMENT BENDING-Y	MOMENT BENDING-Z
1	1	1	-88.14408	79.75300				0.00000
		2	88.14408	-79.75300				398.76497
	2	1	-74.20570	78.62309				0.00000
		2	74.20570	-78.62309				393.11544
	3	1	-38.86573	111.32642				0.00000
		2	38.86573	16.67358				236.63210
	4	1	-176.91557	160.07660				0.00000
		2	176.91557	-160.07660				800.38306
	5	1	-57.41906	64.56666				0.00000
		2	57.41906	-64.56666				322.83327
	6	1	-19.87263	106.87469				0.00000
		2	19.87263	53.12531				134.37346
	DL + LL	1	-455.42279	-601.22046				0.00000
		2	455.42279	-313.22046				2286.10254
2	1	2	-88.14408	-61.34846				-398.76497
		3	88.14408	61.34846				0.00000
	2	2	-74.20570	-60.47930				-393.11544
		3	74.20570	60.47930				0.00000
	3	2	-38.86573	46.79507				-236.63210
		3	38.86573	119.60494				0.00000
	4	2	-176.91557	-123.13585				-800.38306
		3	176.91557	123.13585				0.00000
	5	2	-57.41906	158.33334				-322.83327
		3	57.41906	257.66666				0.00000
	6	2	-19.87263	-20.67284				-134.37346
		3	19.87263	20.67284				0.00000
	DL + LL	2	-455.42279	-60.50805				-2286.10254
		3	455.42279	642.90808				0.00000
3	1	3	-88.14408	61.34846				0.00000
		4	88.14408	-61.34846				398.76497
	2	3	-74.20570	60.47929				0.00000

Tension In F. J.

		4	74.20570	-60.47929	393.11544
	3	3	-38.86573	119.60494	0.00000
		4	38.86573	46.79507	236.63206
	4	3	-176.91557	123.13585	0.00000
		4	176.91557	-123.13585	800.38306
	5	3	-57.41906	257.66666	0.00000
		4	57.41906	158.33334	322.83325
	6	3	-19.87263	20.67284	0.00000
		4	19.87263	-20.67284	134.37346
	DL + LL	3	-455.42279	642.90808	0.00000
		4	455.42279	-60.50803	2286.10254
4	1	4	-88.14408	-79.75300	-398.76497
		5	88.14408	79.75300	0.00000
	2	4	-74.20570	-78.62309	-393.11544
		5	74.20570	78.62309	0.00000
	3	4	-38.86573	16.67358	-236.63206
		5	38.86573	111.32642	0.00000
	4	4	-176.91557	-160.07660	-800.38306
		5	176.91557	160.07660	0.00000
	5	4	-57.41906	-64.56665	-322.83325
		5	57.41906	64.56665	0.00000
	6	4	-19.87263	53.12531	-134.37346
		5	19.87263	106.87469	0.00000
	DL + LL	4	-455.42279	-313.22046	-2286.10254
		5	455.42279	601.22046	0.00000
5	1	2	141.10146	0.00000	0.00000
		6	-141.10146	0.00000	0.00000
	2	2	139.10239	0.00000	0.00000
		6	-62.10238	0.00000	0.00000
	3	2	-63.46865	0.00000	0.00000
		6	63.46865	0.00000	0.00000
	4	2	283.21246	0.00000	0.00000
		6	-283.21246	0.00000	0.00000
	5	2	-93.76669	0.00000	0.00000
		6	93.76669	0.00000	0.00000
	6	2	-32.45247	0.00000	0.00000
		6	32.45247	0.00000	0.00000
	DL + LL	2	373.72855	0.00000	0.00000
		6	-296.72852	0.00000	0.00000
6	1	4	141.10146	0.00000	0.00000
		7	-141.10146	0.00000	0.00000
	2	4	139.10239	0.00000	0.00000
		7	-62.10238	0.00000	0.00000
	3	4	-63.46865	0.00000	0.00000
		7	63.46865	0.00000	0.00000
	4	4	283.21246	0.00000	0.00000
		7	-283.21246	0.00000	0.00000
	5	4	-93.76669	0.00000	0.00000
		7	93.76669	0.00000	0.00000
	6	4	-32.45247	0.00000	0.00000
		7	32.45247	0.00000	0.00000
	DL + LL	4	373.72855	0.00000	0.00000
		7	-296.72852	0.00000	0.00000
7	1	8	4.14108	0.00000	0.00000

COMP. IN KNEECAPS

		9	-4.14108	0.00000	0.00000
	2	8	21.30095	52.80000	0.00000
		9	-21.30095	52.80000	0.00000
	3	8	28.05560	0.00000	0.00000
		9	-28.05560	0.00000	0.00000
	4	8	8.31740	0.00000	0.00000
		9	-8.31740	0.00000	0.00000
	5	8	41.44851	0.00000	0.00000
		9	-41.44851	0.00000	0.00000
	6	8	14.34525	0.00000	0.00000
		9	-14.34525	0.00000	0.00000
	DL + LL	8	117.60878	52.80000	0.00000
		9	-117.60878	52.80000	0.00000
8	1	1	154.52472	42.74475	0.00000
		6	-75.77471	47.25525	-14.98350
	2	1	103.60075	5.71265	0.00000
		6	-103.60075	-5.71265	37.95393
	3	1	71.04384	22.17177	0.00000
		6	-71.04384	-22.17177	147.30571
	4	1	310.14038	85.78351	0.00000
		6	-152.09926	94.83490	-30.06802
	5	1	104.95805	32.75591	0.00000
		6	-104.95805	-32.75591	217.62506
	6	1	36.32578	11.33676	0.00000
		6	-36.32578	-11.33676	75.31961
	DL + LL	1	780.59363	200.50536	0.00000
		6	-543.80243	70.11308	433.15283
9	1	6	168.66681	59.00269	14.98350
		8	-113.58681	3.99731	112.87769
	2	6	144.47421	52.50793	-37.95392
		8	-90.61822	9.09207	138.87500
	3	6	29.25979	-25.58142	-147.30573
		8	-29.25979	25.58142	28.37659
	4	6	338.54807	118.44121	30.06803
		8	-227.97047	8.03642	226.57029
	5	6	43.22755	-37.79323	-217.62506
		8	-43.22755	37.79323	41.92272
	6	6	14.96097	-13.08016	-75.31961
		8	-14.96097	13.08016	14.50937
	DL + LL	6	739.13745	153.49702	-433.15279
		8	-519.62384	97.58062	563.13167
10	1	8	110.46870	-1.31637	-112.87770
		10	-63.21869	55.31637	0.00000
	2	8	39.81488	-34.83803	-138.87501
		10	-39.81488	34.83803	0.00000
	3	8	8.13545	-7.11852	-28.37659
		10	-8.13545	7.11852	0.00000
	4	8	221.70772	-2.65166	-226.57031
		10	-126.88304	111.02269	0.00000
	5	8	12.01907	-10.51669	-41.92273
		10	-12.01907	10.51669	0.00000
	6	8	4.15978	-3.63981	-14.50937
		10	-4.15978	3.63981	0.00000
	DL + LL	8	396.30563	-60.08107	-563.13171
		10	-254.23093	222.45210	0.00000

Comp. Int
C.J.

11	1	10	63.21869	55.31637	0.00001
		9	-110.46870	-1.31637	112.87769
	2	10	39.81488	34.83803	0.00001
		9	-39.81488	-34.83803	138.87500
	3	10	8.13545	7.11852	0.00000
		9	-8.13545	-7.11852	28.37659
	4	10	126.88304	111.02269	0.00002
		9	-221.70773	-2.65165	226.57031
	5	10	12.01907	10.51669	0.00000
		9	-12.01907	-10.51669	41.92273
	6	10	4.15978	3.63980	0.00000
		9	-4.15978	-3.63980	14.50937
	DL + LL	10	254.23093	222.45210	0.00004
		9	-396.30563	-60.08106	563.13167
12	1	9	113.58681	3.99731	-112.87769
		7	-168.66681	59.00269	-14.98349
	2	9	90.61822	9.09208	-138.87501
		7	-144.47421	52.50792	37.95393
	3	9	29.25979	25.58142	-28.37658
		7	-29.25979	-25.58142	147.30570
	4	9	227.97047	8.03642	-226.57031
		7	-338.54807	118.44122	-30.06801
	5	9	43.22755	37.79323	-41.92272
		7	-43.22755	-37.79323	217.62506
	6	9	14.96097	13.08016	-14.50937
		7	-14.96097	-13.08016	75.31960
	DL + LL	9	519.62384	97.58062	-563.13171
		7	-739.13745	153.49702	433.15283
13	1	7	75.77472	47.25525	14.98348
		5	-154.52472	42.74475	0.00000
	2	7	103.60075	-5.71265	-37.95393
		5	-103.60075	5.71265	0.00000
	3	7	71.04384	-22.17177	-147.30573
		5	-71.04384	22.17177	0.00000
	4	7	152.09927	94.83490	30.06800
		5	-310.14038	85.78351	0.00000
	5	7	104.95805	-32.75591	-217.62508
		5	-104.95805	32.75591	0.00000
	6	7	36.32578	-11.33676	-75.31961
		5	-36.32578	11.33676	0.00000
	DL + LL	7	543.80243	70.11306	-433.15287
		5	-780.59363	200.50537	0.00000

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*RESULTS OF LATEST ANALYSES*
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PROBLEM - 920341 TITLE - ROOF RAFTERS

ACTIVE UNITS INCH LB DEG DEGF SEC

RESULTANT JOINT DISPLACEMENTS SUPPORTS

JOINT	LOADING	DISPLACEMENT X DISP.	Y DISP.	Z DISP.	ROTATION X ROT.	Y ROT.	Z ROT.
1	GLOBAL						
	1	-0.21227	0.00000				0.00000
	2	-0.17870	0.00000				0.00000
	3	-0.09360	0.00000				0.00000
	4	-0.42605	0.00000				0.00000
	5	-0.13828	0.00000				0.00000
	6	-0.04786	0.00000				0.00000
	DL + LL	-1.09675	0.00000				0.00000
3	GLOBAL						
	1	0.00000	0.00000				0.00000
	2	0.00000	0.00000				0.00000
	3	0.00000	0.00000				0.00000
	4	0.00000	0.00000				0.00000
	5	0.00000	0.00000				0.00000
	6	0.00000	0.00000				0.00000
	DL + LL	0.00000	0.00000				0.00000
5	GLOBAL						
	1	0.21227	0.00000				0.00000
	2	0.17870	0.00000				0.00000
	3	0.09360	0.00000				0.00000
	4	0.42605	0.00000				0.00000
	5	0.13828	0.00000				0.00000
	6	0.04786	0.00000				0.00000
	DL + LL	1.09675	0.00000				0.00000

RESULTANT JOINT DISPLACEMENTS FREE JOINTS

JOINT	LOADING	DISPLACEMENT X DISP.	Y DISP.	Z DISP.	ROTATION X ROT.	Y ROT.	Z ROT.
2	GLOBAL						
	1	-0.21195	-0.17564				-0.03871
	2	-0.17844	-0.17316				-0.03816
	3	-0.09346	-0.15321				-0.04386
	4	-0.42542	-0.35255				-0.07769
	5	-0.13807	-0.22635				-0.11169
	6	-0.04779	-0.07834				0.00102
	DL + LL	-1.09513	-1.15924				-0.30908
4	GLOBAL						
	1	0.21195	-0.17564				0.03871
	2	0.17844	-0.17316				0.03816
	3	0.09346	-0.15321				0.04386
	4	0.42542	-0.35255				0.07769
	5	0.13807	-0.22635				0.11169

1 INCH KICK-OUT

	6	0.04779	-0.07834	-0.00102
	DL + LL	1.09513	-1.15924	0.30908
6 GLOBAL				
	1	-0.05876	-0.17647	-0.13260
	2	-0.02749	-0.17375	-0.14299
	3	0.03957	-0.15284	-0.05821
	4	-0.11794	-0.35421	-0.26616
	5	0.05846	-0.22580	-0.08600
	6	0.02023	-0.07815	-0.02976
	DL + LL	-0.08593	-1.16121	-0.71572
7 GLOBAL				
	1	0.05876	-0.17647	0.13260
	2	0.02749	-0.17375	0.14299
	3	-0.03957	-0.15284	0.05821
	4	0.11794	-0.35421	0.26616
	5	-0.05846	-0.22580	0.08600
	6	-0.02023	-0.07815	0.02976
	DL + LL	0.08593	-1.16121	0.71572
8 GLOBAL				
	1	0.00499	-0.25029	-0.04116
	2	0.02565	-0.23527	-0.00303
	3	0.03378	-0.14640	0.05129
	4	0.01001	-0.50236	-0.08260
	5	0.04991	-0.21628	0.07578
	6	0.01727	-0.07485	0.02623
	DL + LL	0.14160	-1.42545	0.02651
9 GLOBAL				
	1	-0.00499	-0.25029	0.04116
	2	-0.02565	-0.23527	0.00303
	3	-0.03378	-0.14640	-0.05129
	4	-0.01001	-0.50236	0.08260
	5	-0.04991	-0.21628	-0.07578
	6	-0.01727	-0.07485	-0.02623
	DL + LL	-0.14160	-1.42545	-0.02651
10 GLOBAL				
	1	0.00000	-0.24506	-0.03834
	2	0.00000	-0.20618	-0.07120
	3	0.00000	-0.10783	-0.06646
	4	0.00000	-0.49186	-0.07697
	5	0.00000	-0.15931	-0.09818
	6	0.00000	-0.05514	-0.03398
	DL + LL	0.00000	-1.26538	-0.38512

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*RESULTS OF LATEST ANALYSES*
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PROBLEM - 920341 TITLE - ROOF RAFTERS

ACTIVE UNITS FEET LB DEG DEGF SEC

INTERNAL MEMBER RESULTS

MEMBER SECTION FORCES

--- MEMBER 1 ---

LOADING 1 ROOF DEAD LOAD 11.25 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	88.14408	-79.75300				0.0000000E+00
0.100		88.14408	-79.75300				39.87650
0.200		88.14408	-79.75300				79.75300
0.300		88.14408	-79.75300				119.6295
0.400		88.14408	-79.75300				159.5060
0.500		88.14408	-79.75300				199.3825
0.600		88.14408	-79.75300				239.2590
0.700		88.14408	-79.75300				279.1355
0.800		88.14408	-79.75300				319.0120
0.900		88.14408	-79.75300				358.8885
1.000		88.14408	-79.75300				398.7650

LOADING 2 CEILING AND WALL DEAD LOAD 11 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	74.20570	-78.62309				-0.9473903E-14
0.100		74.20570	-78.62309				39.31154
0.200		74.20570	-78.62309				78.62309
0.300		74.20570	-78.62309				117.9346
0.400		74.20570	-78.62309				157.2462
0.500		74.20570	-78.62309				196.5577
0.600		74.20570	-78.62309				235.8693
0.700		74.20570	-78.62309				275.1808
0.800		74.20570	-78.62309				314.4923

0.900		74.20570	-78.62309				353.8039
1.000		74.20570	-78.62309				393.1154

LOADING 3 FLOOR DEAD LOAD 16 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	38.86573	-111.3264				0.0000000E+00
0.100		38.86573	-98.52641				52.46321
0.200		38.86573	-85.72642				98.52642
0.300		38.86573	-72.92641				138.1896
0.400		38.86573	-60.12642				171.4528
0.500		38.86573	-47.32641				198.3160
0.600		38.86573	-34.52641				218.7792
0.700		38.86573	-21.72641				232.8425
0.800		38.86573	-8.926411				240.5057
0.900		38.86573	3.873590				241.7689
1.000		38.86573	16.67359				236.6321

LOADING 4 ROOF LIVE LOAD 30 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	176.9156	-160.0766				0.1894781E-13
0.100		176.9156	-160.0766				80.03830
0.200		176.9156	-160.0766				160.0766
0.300		176.9156	-160.0766				240.1149
0.400		176.9156	-160.0766				320.1532
0.500		176.9156	-160.0766				400.1915
0.600		176.9156	-160.0766				480.2298
0.700		176.9156	-160.0766				560.2681
0.800		176.9156	-160.0766				640.3064
0.900		176.9156	-160.0766				720.3447
1.000		176.9156	-160.0766				800.3830

LOADING 5 FLOOR LIVE LOAD 40 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	57.41906	-64.56666				0.0000000E+00
0.100		57.41906	-64.56666				32.28333
0.200		57.41906	-64.56666				64.56666
0.300		57.41906	-64.56666				96.84998
0.400		57.41906	-64.56666				129.1333
0.500		57.41906	-64.56666				161.4166
0.600		57.41906	-64.56666				193.7000
0.700		57.41906	-64.56666				225.9833
0.800		57.41906	-64.56666				258.2666
0.900		57.41906	-64.56666				290.5500
1.000		57.41906	-64.56666				322.8333

LOADING 6 ATTIC LIVE LOAD 20 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	19.87263	-106.8747				0.9473903E-14
0.100		19.87263	-90.87469				49.43735
0.200		19.87263	-74.87469				90.87469
0.300		19.87263	-58.87469				124.3120
0.400		19.87263	-42.87469				149.7494
0.500		19.87263	-26.87469				167.1867
0.600		19.87263	-10.87469				176.6241
0.700		19.87263	5.125309				178.0614
0.800		19.87263	21.12531				171.4988
0.900		19.87263	37.12531				156.9361
1.000		19.87263	53.12531				134.3735

LOADING DL + LL

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	455.4228	-601.2205				0.1894781E-13
0.100		455.4228	-572.4205				293.4102
0.200		455.4228	-543.6204				572.4205
0.300		455.4228	-514.8204				837.0307
0.400		455.4228	-486.0204				1087.241
0.500		455.4228	-457.2205				1323.051
0.600		455.4228	-428.4204				1544.461
0.700		455.4228	-399.6205				1751.472
0.800		455.4228	-370.8204				1944.082
0.900		455.4228	-342.0204				2122.292
1.000		455.4228	-313.2204				2286.102

--- MEMBER 2 ---

LOADING 1 ROOF DEAD LOAD 11.25 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	88.14408	61.34846				398.7650
0.100		88.14408	61.34846				358.8885
0.200		88.14408	61.34846				319.0120
0.300		88.14408	61.34846				279.1355
0.400		88.14408	61.34846				239.2590
0.500		88.14408	61.34846				199.3825
0.600		88.14408	61.34846				159.5060
0.700		88.14408	61.34846				119.6295
0.800		88.14408	61.34846				79.75298

0.900	88.14408	61.34846				39.87648
1.000	88.14408	61.34846				-0.3773273E-04

LOADING 2 CEILING AND WALL DEAD LOAD 11 PSF

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	74.20570	60.47930				393.1154
0.100	74.20570	60.47930				353.8039
0.200	74.20570	60.47930				314.4923
0.300	74.20570	60.47930				275.1808
0.400	74.20570	60.47930				235.8692
0.500	74.20570	60.47930				196.5577
0.600	74.20570	60.47930				157.2462
0.700	74.20570	60.47930				117.9346
0.800	74.20570	60.47930				78.62309
0.900	74.20570	60.47930				39.31152
1.000	74.20570	60.47930				-0.3527279E-04

LOADING 3 FLOOR DEAD LOAD 16 PSF

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	38.86573	-46.79507				236.6321
0.100	38.86573	-30.15507				261.6409
0.200	38.86573	-13.51506				275.8337
0.300	38.86573	3.124939				279.2105
0.400	38.86573	19.76494				271.7713
0.500	38.86573	36.40495				253.5161
0.600	38.86573	53.04494				224.4448
0.700	38.86573	69.68494				184.5576
0.800	38.86573	86.32494				133.8544
0.900	38.86573	102.9650				72.33518
1.000	38.86573	119.6049				-0.6940679E-04

LOADING 4 ROOF LIVE LOAD 30 PSF

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	176.9156	123.1358				800.3831
0.100	176.9156	123.1358				720.3447
0.200	176.9156	123.1358				640.3065
0.300	176.9156	123.1358				560.2681
0.400	176.9156	123.1358				480.2298
0.500	176.9156	123.1358				400.1915
0.600	176.9156	123.1358				320.1532
0.700	176.9156	123.1358				240.1149
0.800	176.9156	123.1358				160.0766
0.900	176.9156	123.1358				80.03829
1.000	176.9156	123.1358				-0.4014069E-04

LOADING 5 FLOOR LIVE LOAD 40 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	57.41906	-158.3333				322.8333
0.100		57.41906	-116.7333				412.2299
0.200		57.41906	-75.13334				474.5866
0.300		57.41906	-33.53333				509.9033
0.400		57.41906	8.066676				518.1800
0.500		57.41906	49.66668				499.4166
0.600		57.41906	91.26668				453.6133
0.700		57.41906	132.8667				380.7699
0.800		57.41906	174.4667				280.8866
0.900		57.41906	216.0667				153.9632
1.000		57.41906	257.6667				-0.1990265E-03

LOADING 6 ATTIC LIVE LOAD 20 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	19.87263	20.67284				134.3735
0.100		19.87263	20.67284				120.9361
0.200		19.87263	20.67284				107.4988
0.300		19.87263	20.67284				94.06142
0.400		19.87263	20.67284				80.62408
0.500		19.87263	20.67284				67.18673
0.600		19.87263	20.67284				53.74939
0.700		19.87263	20.67284				40.31204
0.800		19.87263	20.67284				26.87469
0.900		19.87263	20.67284				13.43734
1.000		19.87263	20.67284				-0.9964523E-05

LOADING DL + LL

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	455.4228	60.50803				2286.102
0.100		455.4228	118.7480				2227.844
0.200		455.4228	176.9880				2131.730
0.300		455.4228	235.2281				1997.760
0.400		455.4228	293.4680				1825.933
0.500		455.4228	351.7081				1616.251
0.600		455.4228	409.9481				1368.713
0.700		455.4228	468.1881				1083.319
0.800		455.4228	526.4280				760.0684
0.900		455.4228	584.6681				398.9620
1.000		455.4228	642.9081				-0.3915441E-03

--- MEMBER 8 ---

LOADING 1 ROOF DEAD LOAD 11.25 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-154.5247	-42.74475				-0.1184238E-14
0.100		-146.6497	-33.74475				25.40921
0.200		-138.7747	-24.74475				44.83896
0.300		-130.8997	-15.74475				58.28926
0.400		-123.0247	-6.744753				65.76009
0.500		-115.1497	2.255245				67.25147
0.600		-107.2747	11.25525				62.76339
0.700		-99.39972	20.25525				52.29585
0.800		-91.52472	29.25525				35.84886
0.900		-83.64972	38.25525				13.42242
1.000		-75.77472	47.25525				-14.98349

LOADING 2 CEILING AND WALL DEAD LOAD 11 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-103.6008	-5.712648				0.4736952E-14
0.100		-103.6008	-5.712648				3.795393
0.200		-103.6008	-5.712648				7.590786
0.300		-103.6008	-5.712648				11.38618
0.400		-103.6008	-5.712648				15.18157
0.500		-103.6008	-5.712648				18.97696
0.600		-103.6008	-5.712648				22.77236
0.700		-103.6008	-5.712648				26.56775
0.800		-103.6008	-5.712648				30.36314
0.900		-103.6008	-5.712648				34.15854
1.000		-103.6008	-5.712648				37.95393

LOADING 3 FLOOR DEAD LOAD 16 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-71.04384	-22.17177				-0.2368476E-14
0.100		-71.04384	-22.17177				14.73057
0.200		-71.04384	-22.17177				29.46114
0.300		-71.04384	-22.17177				44.19172
0.400		-71.04384	-22.17177				58.92229
0.500		-71.04384	-22.17177				73.65285
0.600		-71.04384	-22.17177				88.38343
0.700		-71.04384	-22.17177				103.1140
0.800		-71.04384	-22.17177				117.8446
0.900		-71.04384	-22.17177				132.5751
1.000		-71.04384	-22.17177				147.3057

0.000	FR	-780.5935	-200.5053				0.2131628E-13
0.100		-756.9144	-173.4435				124.2228
0.200		-733.2353	-146.3817				230.4662
0.300		-709.5562	-119.3198				318.7302
0.400		-685.8771	-92.25797				389.0146
0.500		-662.1979	-65.19614				441.3196
0.600		-638.5189	-38.13429				475.6452
0.700		-614.8397	-11.07245				491.9913
0.800		-591.1606	15.98939				490.3579
0.900		-567.4815	43.05122				470.7451
1.000		-543.8024	70.11307				433.1528

--- MEMBER 9 ---

LOADING 1 ROOF DEAD LOAD 11.25 PSF

DISTANCE FROM START		FORCE AXIAL	Y SHEAR	Z SHEAR	MOMENT TORSION	Y BENDING	Z BENDING
0.000	FR	-168.6668	-59.00269				-14.98350
0.100		-163.1588	-52.70269				10.98265
0.200		-157.6508	-46.40269				34.01991
0.300		-152.1428	-40.10268				54.12827
0.400		-146.6348	-33.80268				71.30773
0.500		-141.1268	-27.50269				85.55830
0.600		-135.6188	-21.20269				96.87997
0.700		-130.1108	-14.90268				105.2727
0.800		-124.6028	-8.602681				110.7366
0.900		-119.0948	-2.302679				113.2716
1.000		-113.5868	3.997314				112.8777

LOADING 2 CEILING AND WALL DEAD LOAD 11 PSF

DISTANCE FROM START		FORCE AXIAL	Y SHEAR	Z SHEAR	MOMENT TORSION	Y BENDING	Z BENDING
0.000	FR	-144.4742	-52.50793				37.95392
0.100		-139.0886	-46.34793				60.93318
0.200		-133.7030	-40.18793				81.04862
0.300		-128.3174	-34.02793				98.30026
0.400		-122.9318	-27.86793				112.6881
0.500		-117.5462	-21.70793				124.2121
0.600		-112.1606	-15.54793				132.8723
0.700		-106.7750	-9.387924				138.6687
0.800		-101.3894	-3.227922				141.6013
0.900		-96.00381	2.932081				141.6700
1.000		-90.61821	9.092074				138.8750

LOADING 3 FLOOR DEAD LOAD 16 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-29.25979	25.58142				147.3057
0.100		-29.25979	25.58142				135.4128
0.200		-29.25979	25.58142				123.5199
0.300		-29.25979	25.58142				111.6270
0.400		-29.25979	25.58142				99.73407
0.500		-29.25979	25.58142				87.84116
0.600		-29.25979	25.58142				75.94825
0.700		-29.25979	25.58142				64.05534
0.800		-29.25979	25.58142				52.16241
0.900		-29.25979	25.58142				40.26950
1.000		-29.25979	25.58142				28.37658

LOADING 4 ROOF LIVE LOAD 30 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-338.5481	-118.4412				-30.06803
0.100		-327.4903	-105.7934				22.05580
0.200		-316.4326	-93.14568				68.29962
0.300		-305.3748	-80.49792				108.6635
0.400		-294.3170	-67.85015				143.1473
0.500		-283.2593	-55.20238				171.7511
0.600		-272.2015	-42.55462				194.4749
0.700		-261.1437	-29.90685				211.3188
0.800		-250.0860	-17.25908				222.2826
0.900		-239.0282	-4.611314				227.3664
1.000		-227.9705	8.036438				226.5702

LOADING 5 FLOOR LIVE LOAD 40 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-43.22755	37.79323				217.6251
0.100		-43.22755	37.79323				200.0548
0.200		-43.22755	37.79323				182.4846
0.300		-43.22755	37.79323				164.9144
0.400		-43.22755	37.79323				147.3441
0.500		-43.22755	37.79323				129.7739
0.600		-43.22755	37.79323				112.2037
0.700		-43.22755	37.79323				94.63342
0.800		-43.22755	37.79323				77.06317
0.900		-43.22755	37.79323				59.49293
1.000		-43.22755	37.79323				41.92269

LOADING 6 ATTIC LIVE LOAD 20 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000	FR	-14.96097	13.08016				75.31961
0.100		-14.96097	13.08016				69.23859
0.200		-14.96097	13.08016				63.15756
0.300		-14.96097	13.08016				57.07654
0.400		-14.96097	13.08016				50.99551
0.500		-14.96097	13.08016				44.91449
0.600		-14.96097	13.08016				38.83347
0.700		-14.96097	13.08016				32.75245
0.800		-14.96097	13.08016				26.67142
0.900		-14.96097	13.08016				20.59039
1.000		-14.96097	13.08016				14.50937

LOADING DL + LL

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-739.1374	-153.4970				433.1528
0.100		-717.1860	-128.3893				498.6779
0.200		-695.2347	-103.2815				552.5302
0.300		-673.2833	-78.17371				594.7099
0.400		-651.3320	-53.06595				625.2168
0.500		-629.3806	-27.95819				644.0510
0.600		-607.4293	-2.850421				651.2126
0.700		-585.4778	22.25735				646.7014
0.800		-563.5265	47.36512				630.5175
0.900		-541.5751	72.47290				602.6608
1.000		-519.6238	97.58064				563.1315

Positive Bending Only

--- MEMBER 10 ---

LOADING 1 ROOF DEAD LOAD 11.25 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-110.4687	1.316370				112.8777
0.100		-105.7437	6.716370				111.2766
0.200		-101.0187	12.11637				107.5230
0.300		-96.29370	17.51637				101.6167
0.400		-91.56870	22.91637				93.55787
0.500		-86.84370	28.31637				83.34641
0.600		-82.11870	33.71637				70.98233
0.700		-77.39369	39.11637				56.46565
0.800		-72.66869	44.51637				39.79638
0.900		-67.94370	49.91637				20.97449
1.000		-63.21869	55.31637				0.3085022E-05

LOADING 2 CEILING AND WALL DEAD LOAD 11 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-39.81488	34.83803				138.8750
0.100		-39.81488	34.83803				124.9875
0.200		-39.81488	34.83803				111.1000
0.300		-39.81488	34.83803				97.21250
0.400		-39.81488	34.83803				83.32500
0.500		-39.81488	34.83803				69.43750
0.600		-39.81488	34.83803				55.54999
0.700		-39.81488	34.83803				41.66249
0.800		-39.81488	34.83803				27.77499
0.900		-39.81488	34.83803				13.88750
1.000		-39.81488	34.83803				-0.3101265E-05

LOADING 3 FLOOR DEAD LOAD 16 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-8.135448	7.118520				28.37659
0.100		-8.135448	7.118520				25.53893
0.200		-8.135448	7.118520				22.70127
0.300		-8.135448	7.118520				19.86362
0.400		-8.135448	7.118520				17.02595
0.500		-8.135448	7.118520				14.18829
0.600		-8.135448	7.118520				11.35063
0.700		-8.135448	7.118520				8.512976
0.800		-8.135448	7.118520				5.675317
0.900		-8.135448	7.118520				2.837658
1.000		-8.135448	7.118520				-0.6891084E-06

LOADING 4 ROOF LIVE LOAD 30 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-221.7077	2.651656				226.5703
0.100		-212.2253	13.48876				223.3533
0.200		-202.7428	24.32586				215.8162
0.300		-193.2603	35.16297				203.9592
0.400		-183.7778	46.00007				187.7822
0.500		-174.2954	56.83718				167.2851
0.600		-164.8129	67.67429				142.4681
0.700		-155.3304	78.51138				113.3311
0.800		-145.8480	89.34849				79.87405
0.900		-136.3655	100.1856				42.09702
1.000		-126.8830	111.0227				-0.1153875E-04

LOADING 5 FLOOR LIVE LOAD 40 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000	FR	-12.01907	10.51669					41.92273
0.100		-12.01907	10.51669					37.73045
0.200		-12.01907	10.51669					33.53818
0.300		-12.01907	10.51669					29.34591
0.400		-12.01907	10.51669					25.15364
0.500		-12.01907	10.51669					20.96136
0.600		-12.01907	10.51669					16.76909
0.700		-12.01907	10.51669					12.57682
0.800		-12.01907	10.51669					8.384545
0.900		-12.01907	10.51669					4.192273
1.000		-12.01907	10.51669					0.9196277E-06

LOADING 6 ATTIC LIVE LOAD 20 PSF

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-4.159776	3.639805				14.50937
0.100		-4.159776	3.639805				13.05844
0.200		-4.159776	3.639805				11.60750
0.300		-4.159776	3.639805				10.15656
0.400		-4.159776	3.639805				8.705624
0.500		-4.159776	3.639805				7.254686
0.600		-4.159776	3.639805				5.803748
0.700		-4.159776	3.639805				4.352811
0.800		-4.159776	3.639805				2.901874
0.900		-4.159776	3.639805				1.450936
1.000		-4.159776	3.639805				-0.1013103E-05

LOADING DL + LL

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-396.3056	60.08107				563.1317
0.100		-382.0981	76.31817				535.9453
0.200		-367.8907	92.55527				502.2862
0.300		-353.6832	108.7924				462.1545
0.400		-339.4757	125.0295				415.5503
0.500		-325.2682	141.2666				362.4734
0.600		-311.0608	157.5037				302.9239
0.700		-296.8533	173.7408				236.9018
0.800		-282.6458	189.9779				164.4072
0.900		-268.4384	206.2150				85.43987
1.000		-254.2309	222.4521				-0.1233758E-04

$

%GTVM-I-SUBSAVE, Subsystem STRUDL saved in file $DISK3:[WORKSPACE]BMJ.SAV;1

P. 53 C 053-1006 8415 N. Fox Croft Ln. 24-5-1

DOCUMENT NO. | REEL 471 IMAG 1095

WARRANTY DEED
STATE OF WISCONSIN—FORM 1

THIS SPACE RESERVED FOR RECORDING DATA

4454026
REGISTER'S OFFICE
Milwaukee County, Wis.
RECORDED AT 9:07 A.M.
on APR - 2 1969 in
Real 471 Image 1095
Milan Patter
Register of Deeds

RETURN TO

THIS INDENTURE, Made this 1st day of April, A. D. 1969, between THOMAS E. FLEMING and SUZANNE R. FLEMING, his wife,

part ies of the first part, and JOHN V. P. WADDINGTON and BARBARA L. WADDINGTON, his wife,

part ies of the second part,

Witnesseth, That the said part ies of the first part, for and in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration,

to them in hand paid by the said part ies of the second part, the receipt whereof is hereby confessed and acknowledged, have given, granted, bargained, sold, remised, released, aliened, conveyed and confirmed, and by these presents do give, grant, bargain, sell, remise, release, alien, convey, and confirm unto the said part ies of the second part, their heirs and assigns forever, the following described real estate, situated in the County of Milwaukee and State of Wisconsin, to-wit:

Parcel 1 of Certified Survey Map No. 868, of a Re-division of Lot 5, the vacated portion of West Dean Road adjoining, and part of Lot 6, in Fox Croft Highlands, being a Subdivision of part of the South West one-quarter (1/4) of the North East one-quarter (1/4) of Section Eight (8), in Township Eight (8) North, Range Twenty-two (22) East, in the Village of Fox Point, County of Milwaukee and State of Wisconsin, as recorded, Tax Key No. Part of 24-5, July 1, 1968, in Reel 427, Image 951 as Document No. 4401782.

APR--2-69 8740 • 4454026 B CA REC **2.00

(IF NECESSARY, CONTINUE DESCRIPTION ON REVERSE SIDE)

Together with all and singular the hereditaments and appurtenances thereunto belonging or in any wise appertaining; and all the estate, right, title, interest, claim or demand whatsoever, of the said parties of the first part, either in law or equity, either in possession or expectancy of, in and to the above bargained premises, and their hereditaments and appurtenances.

To Have and to Hold the said premises as above described with the hereditaments and appurtenances, unto the said part ies of the second part, and to their heirs and assigns FOREVER.

And the said THOMAS E. FLEMING and SUZANNE R. FLEMING, his wife, said parties of the first part, for their heirs, executors and administrators, do covenant, grant, bargain, and agree to and with the said part ies of the second part, their heirs and assigns, that at the time of the ensealing and delivery of these presents they are well seized of the premises above described, as of a good, sure, perfect, absolute and indefeasible estate of inheritance in the law, in fee simple, and that the same are free and clear from all incumbrances whatever, except municipal and zoning ordinances and recorded easements for public utilities and recorded building restrictions,

and that the above bargained premises in the quiet and peaceable possession of the said part ies of the second part, their heirs and assigns, against all and every person or persons lawfully claiming the whole or any part thereof, they will forever WARRANT AND DEFEND.

In Witness Whereof, the said part ies of the first part have hereunto set their hands and seals this 1st day of April, A. D. 1969.

SIGNED AND SEALED IN PRESENCE OF

John D. Morrisey

Thomas E. Fleming (SEAL)
Thomas E. Fleming

Suzanne R. Fleming (SEAL)
Suzanne R. Fleming

(SEAL)

(SEAL)

State of Wisconsin, Milwaukee County. } Personally came before me, this 1st day of April, A. D., 1969, the above named THOMAS E. FLEMING and SUZANNE R. FLEMING, his wife,

to me known to be the persons who executed the foregoing instrument and acknowledged the same.

THIS INSTRUMENT WAS DRAFTED BY

John D. Morrisey,
Attorney at Law

NOTARY SEAL

James G. Dallmann
Notary Public, Milwaukee County, Wis.
My commission (expires) (is) August 20, 1972

(Section 59.51 (1) of the Wisconsin Statutes provides that all instruments to be recorded shall have plainly printed or typewritten thereon the names of the grantors, grantees, witnesses and notary. Section 59.513 similarly requires that the name of the person who, or governmental agency which, drafted such instrument, shall be printed, typewritten, stamped or written thereon in a legible manner.)

V4-5

REEL 440 IMAG 365 Easement No. 367 IDO TD-5424 - WO 41-369

FORM 597-6-65-2000-JT, IND.

**2.00

SEP-13-68 20511 4417198 LT CA REC

FOR AND IN CONSIDERATION of the sum of One Dollar ($1.00) to us in hand paid, the receipt whereof is hereby acknowledged, we do hereby give and grant to

WISCONSIN ELECTRIC POWER COMPANY

AND

WISCONSIN TELEPHONE COMPANY

their successors and assigns, the right, permission and authority to construct, install, operate, maintain and replace one (1) pole, together with the necessary crossarms and transformers, anchor, guy wire and other appliances necessary and usual in the conduct of their respective businesses, and to string, operate, maintain and replace wires and cables thereon, and to install, operate, maintain and replace conduit and cables underground, together with riser equipment, pedestals, terminals, markers, and other appurtenant equipment, all for the purpose of transmitting electrical energy for light, heat, power and signals, or for such other purpose as electric current is now or may hereafter be used, and for telephone service, upon, over, across, within and beneath certain easement areas described as follows:

the east eight (8) feet of the south thirty-five (35) feet, the south eight (8) feet and the east eight (8) feet of the west thirty-three (33) feet of the south forty-eight (48) feet, with an anchor and guy wire to extend not more than ten (10) feet easterly from the pole located within the easement strip and approximately forty-two (42) feet north of the south lot line, Certified Survey Map #868, of a redivision of Lot Five (5), the vacated portion of West Dean Road adjoining, and part of Lot Six (6), in FOX CROFT HIGHLANDS, being a subdivision of a part of the Southwest one-quarter (SW¼) of the Northeast one-quarter (NE¼) of Section Eight (8), Township Eight (8) North, Range Twenty-two (22) East, Village of Fox Point, Milwaukee County, Wisconsin.

The right, permission and authority is also granted said companies to trim and keep trimmed all trees now or hereafter existing along the said line in said subdivision so that they will clear wires and cables strung not less than thirteen (13) feet above the presently existing ground level, by as much as five (5) feet, and so that the trees will not be liable to interfere with the transmission of electricity or with telephone service over said line; also, the right to cut down certain trees where it is found impractical to maintain clearance by trimming, or where said trees interfere with the installation or maintenance of underground facilities or represent a hazard to such facilities.

Permission is also granted said companies to enter upon said premises for the purpose of exercising the rights herein acquired.

IN WITNESS WHEREOF, we have hereunto set our hand s and seal s this 20th day of August, 1968

In Presence of:

Russell F. Wiegan
Russell F. Wiegan

John Kassander
John Kassander

Thomas E. Fleming (SEAL)
Thomas E. Fleming

Suzanne Fleming (SEAL)
Suzanne Fleming

4417198

REGISTER'S OFFICE Milwaukee County, Wis. RECORDED AT 3:15 P.M. on SEP 13 1968 in Reel 440 Image 365

Melvin Potter
Register of Deeds

STATE OF WISCONSIN } SS
Milwaukee COUNTY.

Personally came before me this 20th day of August, 1968, the above named THOMAS E. FLEMING and SUZANNE FLEMING, his wife,

to me known to be the persons who executed the foregoing instrument and acknowledged the same.

Russell F. Wiegan
Russell F. Wiegan
Notary Public, Ozaukee Co., Wis.
My commission expires Feb. 13, 1972

APPROVED:

INITIALS	DATE
[illegible]	9/12/68

This instrument was drafted by R. F. Wiegan on behalf of Wisconsin Electric Power Company.

24-5-1 ✓
522W Bergen 24-11 fredrick

FNW:mjg 4 4-22 REEL 475 IMAGE 24 4/21/69 F.P.32

70X Pt

Mr. EUGENE G. HAEBERLE moved, and Mr. DANIEL W. HOWARD seconded that a resolution as hereinafter set forth for the vacation of a certain thirty (30) foot (more or less) street having been introduced at a meeting of the Village Board of the Village of Fox Point on February 25, 1969 and a hearing for passage of said resolution having been set for April 22, 1969, and notice of said hearing having been given, and a Lis Pendens having been recorded, and a public hearing having been held all as required by Wisconsin Statutes, the following resolution be and it hereby is adopted:

RESOLVED THAT:

WHEREAS, Parcel 1 and 2 of Certified Survey Map No. 868, a land division, and Fox Croft Highlands, a subdivision, being in the North East One-quarter (1/4) of Section Eight (8), Township Eight (8) North, Range Twenty-two (22) East in the Village of Fox Point, Milwaukee County, Wisconsin, established a thirty (30) foot street along the West boundary line of Parcel 1 and 2 of said Certified Survey Map, and Lots 6, 7, 8, 9, 10 and 11 of said subdivision, and

WHEREAS, as lands in the said land division and said subdivision and adjacent thereto have been and are being developed, it appears unnecessary and undesirable to improve said street, and that therefore the same should be vacated and discontinued, and

WHEREAS, the lands affected by such vacation and discontinuance are:

Parcel 1 and 2 of Certified Survey Map No. 868, a recorded land division, and lots 6, 7, 8, 9, 10 and 11 of Fox Croft Highlands, a recorded subdivision, being part of the North East One-quarter (1/4) of Section Eight (8), Town Eight (8) North, Range

4458092

APR-23-69 94172 • 4458092 • $5.00

REGISTER'S OFFICE Milwaukee County, Wis. RECORDED AT 8:14 AM on APR 23 1969 in Reel 475 Image 24 Kent
Mike Potter Register of Deeds

5.00

8-8-22

REEL 475 IMAG 25

24-5
to
24-11

Twenty-two (22) East in the Village of Fox Point, Milwaukee County, Wisconsin, being adjacent to said street on the East; and U. S. Highway 141 being adjacent to said street on the West.

NOW, THEREFORE, it is hereby resolved that since the public interest requires it, the following street is hereby vacated and discontinued:

All of North Sixth Street, being a thirty (30) foot dedicated street lying within the Village of Fox Point and West of and adjacent to Parcel 1 and 2 of Certified Survey Map #868, and Lots 6, 7, 8, 9, 10, and 11 of Fox Croft Highlands Subdivision,

being a recorded land division and Subdivision in the North East One-quarter (1/4) of Section Eight (8), Town Eight (8) North, Range Twenty-two (22) East in the Village of Fox Point, Milwaukee County, Wisconsin.

AND IT IS FURTHER RESOLVED that a certified copy hereof, accompanied by a map showing the location of the land affected by said vacation and discontinuance, be recorded in the office of the Register of Deeds of Milwaukee County, Wisconsin.

I hereby certify that the above has been compared by me with the original thereof and is a true copy of a resolution duly adopted at a meeting of the Village Board of the Village of Fox Point, Milwaukee County, Wisconsin on April 22, 1969.

Isabelle Galewski

Isabelle Galewski, Village Clerk
Village of Fox Point
Milwaukee County, Wisconsin

VILLAGE OF FOX POINT
INCORPORATED
(VILLAGE SEAL)
FEB. 15, 1926
MILWAUKEE CO. WIS.

Drafted by:
Fraley N. Weidner
827 Wells Building
Milwaukee, Wisconsin 53202

NAME CHANGE

DOCUMENT NO.

REEL 2781 IMAGE 1868

STATE BAR OF WISCONSIN FORM 1 — 1982

WARRANTY DEED

053-1006

THIS SPACE RESERVED FOR RECORDING DATA

6611748

REGISTER'S OFFICE } ss
Milwaukee County, WI
RECORDED AT 8 00 AM
MAY 18 1992
REEL 2781 IMAGE 1868
Walter Bergah REGISTER OF DEEDS

RETURN TO
Scott & Kathleen Waddington
8415 Foxcroft Lane
Fox Point, WI 53217

This Deed, made between John V.P. Waddington and Barbara L. Waddington, husband and wife, Grantor,

and Scott E. Waddington and Kathleen M. Waddington, husband and wife, Grantee,

Witnesseth, That the said Grantor, for a valuable consideration conveys to Grantee the following described real estate in Milwaukee County, State of Wisconsin:

AA-17850

Tax Parcel No: 053-1006-000

8415 N. Fox Croft Lane

Parcel 1 of Certified Survey Map No. 868, of a Re-division of Lot 5, the vacated portion of West Dean Road adjoining, and part of Lot 6, in Fox Croft Highlands, being a Subdivision of part of the South West 1/4 of the North East 1/4 of Section 8, in Township 8 North, Range 22 East, in the Village of Fox Point, County of Milwaukee and State of Wisconsin, as recorded, Tax Key No. Part of 24-5, July 1, 1968, in Reel 427, Image 951, as Document No. 4401782.

TRANSFER FEE $ 300.00

NOTE: Deed Descr does not include ~~xxxxxxxx~~ part vacated N. 6th St. adj sd lot on W .

6611748
RECORD 10.00
RTX 300.00

NAME CHANGE

This is (is) ~~xxxxx~~ homestead property.

Together with all and singular the hereditaments and appurtenances thereunto belonging;

And said grantors warrants that the title is good, indefeasible in fee simple and free and clear of encumbrances except municipal and zoning ordinances, recorded easements for public utilities serving the property, recorded building and use restrictions and covenants, and general taxes.

and will warrant and defend the same.

Dated this 24th day of April, 19 92

(SEAL) John V.P. Waddington (SEAL)

(SEAL) [X] her mark (SEAL)
Barbara L. Waddington

AUTHENTICATION

Signature(s) John V.P. Waddington and Barbara L. Waddington

authenticated this 24th day of April, 19 92

Steven W. Moglowsky

TITLE: MEMBER STATE BAR OF WISCONSIN

(If not, authorized by § 706.06, Wis. Stats.)

THIS INSTRUMENT WAS DRAFTED BY

Steven W. Moglowsky

(Signatures may be authenticated or acknowledged. Both are not necessary.)

ACKNOWLEDGMENT

STATE OF WISCONSIN } ss.
County.

Personally came before me this day of, 19 the above named

to me known to be the person who executed the foregoing instrument and acknowledge the same.

Notary Public County, Wis.
My Commission is permanent. (If not, state expiration date: , 19)

*Names of persons signing in any capacity should be typed or printed below their signatures. AA-17850

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