

CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0313671

Insp Area: 2
Thos Bros: 337 A2

Site Address: 986 SUNWOOD WY SAC
Parcel No: 031-0730-074

Sub-Type: RES
Housing (Y/N): N

CONTRACTOR
MONARCH ROOFING INC
8250 ALPINE AV #H
SACRAMENTO, CA 95831

OWNER
MORI KENNETH KENICHI/NAOM
986 SUNWOOD WY
SACRAMENTO CA 95831

ARCHITECT

**Nature of Work: T/O WOOD SHAKE/INSTALL THERMO SHEATHING AND HAT CHANNEL
RE-ROOF WITH EAGLE LITE TILE**

CONSTRUCTION LENDING AGENCY: I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name _____ Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class C39 License Number 806787 Date 9-9-03 Contractor Signature [Signature]

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec. _____ B & PC for this reason: _____

Date _____ Owner Signature _____

PAID
CITY OF SACRAMENTO
SEP 09 2003

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 9-9-03 Applicant/Agent Signature [Signature]

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier AU INSURANCE SERVICE Policy Number 005-00012565 Exp Date 01/01/2004

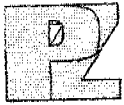
(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 9-9-03 Applicant Signature [Signature]

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.

Mori



Paul Zacher - Structural Engineers, Inc
4701 Lakeside Way
Fair Oaks, CA 95628

TEL: 916.961.3960
FAX: 916.961.6552

It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls that are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and are not an indication of a structural hazard or failure.

It shall be noted that some deflection of the rafters may be evident after installation of the tile. The existing roof framing has deflected but this may not be readily evident due to the uneven nature of the existing roofing material. Concrete tile is a very consistent and uniform product and when installed in an even plane, even small deflections can become apparent. This is only a cosmetic issue and not a structural concern.

The inspection consisted of visual observation only, made solely to determine the structural capacity of the existing roof. Analysis does not determine any effects on the overall structure under lateral forces or effects on the foundation unless specifically noted in the calculations and in this document. No warranties, expressed or implied, are made or intended in conjunction with this report. The inspection was made only to the portions that were accessible. The specific items noted were those that were observable and there may be defects that are not observable, or are hidden by architectural and structural materials.

If you have any questions on the above, do not hesitate to call.

Sincerely,

Paul Zacher, P.E., S.E.

file

P.K. Zacher, S.E.

Job #: 03_390

Date: 08/26/2003

4701 Lakeside Way
Fair Oaks, CA 95628
TEL: (916) 961-3960
FAX: (916) 961-6552

LOADING:

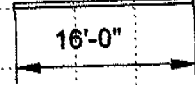
B1

Dr = 14.1 psf x 4'-0" = 56 plf

Lr = 16.0 psf x 4'-0" = 64 plf

4 x 12 #2

56 / 64



Paul Zacher - Structural Engr's
 4701 Lakeside Way
 Fair Oaks, CA 95628
 TEL: (916) 961-3960
 FAX: (916) 961-6552

Title :
 Dsgnr:
 Description :
 Scope :

Job #
 Date: 4:46PM, 26 AUG 03

Rev: 560100
 User: KW-0602844, Ver 5.6.1, 25-Oct-2002
 (c)1983-2002 ENERCALC Engineering Software

Timber Beam & Joist

c:\documents and settings\paul zacher\desktop

Description RAFTERS AND BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

Timber Section		B1
Beam Width	in	3.500
Beam Depth	in	11.250
Le: Unbraced Length	ft	0.00
Timber Grade		Douglas Fir - Larch,
Fb - Basic Allow	psi	875.0
Fv - Basic Allow	psi	95.0
Elastic Modulus	ksi	1,600.0
Load Duration Factor		1.250
Member Type		Sawn
Repetitive Status		No

Center Span Data

Span	ft	16.00
Dead Load	#/ft	* 56.00
Live Load	#/ft	64.00

Results

Ratio = 0.5188

Mmax @ Center	in-k	46.08
@ X =	ft	8.00
f _b : Actual	psi	624.2
F _b : Allowable	psi	1,203.1
		Bending OK
f _v : Actual	psi	32.5
F _v : Allowable	psi	118.8
		Shear OK

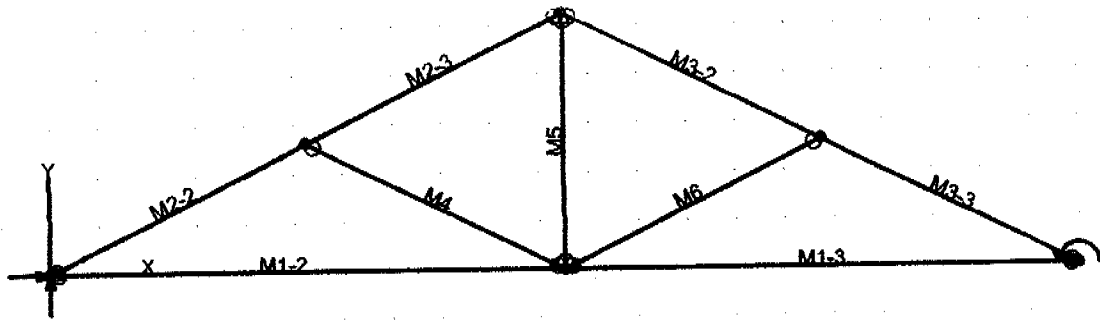
Reactions

@ Left End	DL	lbs	448.00
	LL	lbs	512.00
	Max. DL+LL	lbs	960.00
@ Right End	DL	lbs	448.00
	LL	lbs	512.00
	Max. DL+LL	lbs	960.00

Deflections

Ratio OK

Center DL Defl	in	-0.124
L/Defl Ratio		1,545.0
Center LL Defl	in	-0.142
L/Defl Ratio		1,351.9
Center Total Defl	in	-0.266
Location	ft	8.000
L/Defl Ratio		721.0



Truss 1

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Paul Zacher\Desktop\Mori03_390\Truss 1.vap

Nodes

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RZ
N1	0.00	0.00	Yes		Yes			No
N2	21.00	0.00	No		"			Yes
N3	10.50	5.25	"		No			No
N4	10.50	0.00	"		"			"
N5	5.25	2.63	"		"			"
N6	15.75	2.63	"		"			"

Member Elements

Member	Section	Material	Length ft
M1-2	SS2x4	Wood	10.50
M1-3	"	"	10.50
M2-2	"	"	5.87
M2-3	"	"	5.87
M3-2	"	"	5.87
M3-3	"	"	5.87
M4	"	"	5.87
M5	"	"	5.25
M6	"	"	5.87

Section Properties

Category	Section	Ax in ²	Iz in ⁴	Sz(+y) in ³	Sz(-y) in ³
Wood Sha	SS2x4	5.25	5.36	3.06	3.06

Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft ³
Wood	-NA-	1700000.00	0.36	40.47

Load Combination Summary

Equation Case: UBC97 12.8a

Combination: 1D+1Lr

Contributing Cases & Source

Dead Load (Dead loads)

Roof Live Load (Roof Live loads)

Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft
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N1	UBC97 12.8a	0.00	596.40	-NA-
N2	"	-NA-	596.40	0.00

Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1-2	928.54	-55.62	-109.95	0.01	-0.06
"	928.54	-25.52	32.01	0.01	-0.12
"	928.54	4.58	68.66	0.00	-0.13
"	928.54	34.68	0.00	0.00	0.00
M1-3	928.54	-34.68	0.00	0.03	0.00
"	928.54	-4.58	68.66	0.02	-0.13
"	928.54	25.52	32.01	0.02	-0.12
"	928.54	55.62	-109.95	0.01	-0.06
M2-2	-1081.7	87.16	0.00	0.00	0.00
"	-1044.0	11.72	96.67	-0.00	-0.07
"	-1006.2	-63.73	45.79	-0.01	-0.08
"	-968.56	-139.17	-152.64	-0.01	-0.06
M2-3	-759.80	139.17	-152.64	-0.01	-0.06
"	-722.08	63.73	45.79	-0.01	-0.09
"	-684.35	-11.72	96.67	-0.01	-0.11
"	-646.63	-87.16	0.00	-0.01	-0.06
M3-2	-759.80	-139.17	-152.64	0.03	-0.05
"	-722.08	-63.73	45.79	0.03	-0.08
"	-684.35	11.72	96.67	0.04	-0.09
"	-646.63	87.16	0.00	0.04	-0.04
M3-3	-1081.7	-87.16	0.00	0.02	0.01
"	-1044.0	-11.72	96.67	0.03	-0.06
"	-1006.2	63.73	45.79	0.03	-0.06
"	-968.56	139.17	-152.64	0.03	-0.05
M4	-347.93	0.00	0.00	0.04	-0.05
"	-347.93	0.00	0.00	0.04	-0.05
"	-347.93	0.00	0.00	0.04	-0.04
"	-347.93	0.00	0.00	0.04	-0.04
M5	422.44	0.00	0.00	-0.06	-0.01
"	422.44	0.00	0.00	-0.06	-0.01
"	422.44	0.00	0.00	-0.06	-0.01
"	422.44	0.00	0.00	-0.06	-0.01
M6	-347.93	0.00	0.00	-0.02	-0.06
"	-347.93	0.00	0.00	-0.02	-0.05
"	-347.93	0.00	0.00	-0.02	-0.05
"	-347.93	0.00	0.00	-0.01	-0.06

BENDING & COMP: TRUSS 1 - MEMBER 2-2

Design based on 1997 UBC 2321 Division V and ANSI/TPI 1-1995

Grading:

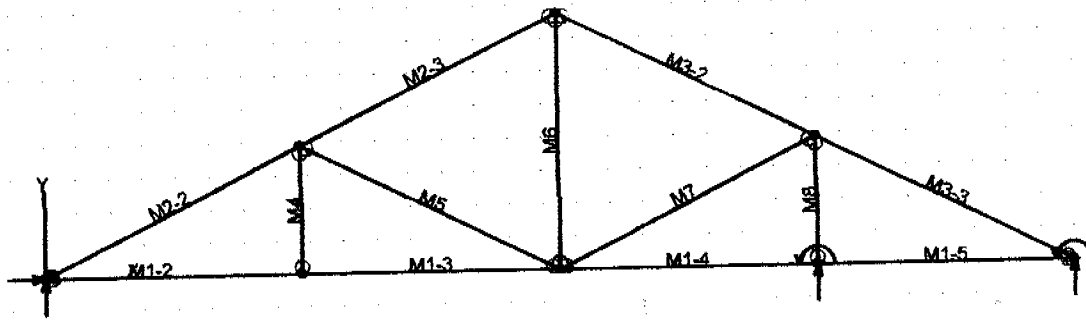
2x or 4x

Doug-fir larch: No. 2

Assumptions:

Solid sheathing on top chord of truss. Therefore,
continuous lateral support is provided along compression face
Maximum center-center spacing = 24"

Width, b	1.5 inches
Depth, d	3.5 inches
Length	5.87 feet
Max Axial Comp, C	968 lbs
Max Reaction, R	139 lbs
Max Moment, M	152 ft-lbs
Max LL Deflection	0.03 inches
Max TL Deflection	0.06 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
Size Factor, Cf bending	1.5 1.5 for 2x4, 1.3 for 2x6
Size Factor, Cf comp	1.15 1.15 for 2x4, 1.1 for 2x6
Buckling Factor, CT =	1.16
fc =	184 psi
Fce=	1463 psi
Fc*=	2084 psi
F'c=	1166 psi
fb=	596 psi
F'b=Fb*=	2156 psi
Shear D/C ratio	0.33 < 1.0, Member OK
Interaction equation: (fc/F'c) ² +	
fb/ (F'b(1-fc/Fce)) =	0.34 < 1.0, Member OK
Live Load defl ratio	0.10 < 1.0, Member OK
Total Load defl ratio	0.15 < 1.0, Member OK



Truss 2

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Paul Zacher\Desktop\Mori03_390\Truss 2.vap

Nodes

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RZ
N1	0.00	0.00	Yes		Yes			No
N2	31.00	0.00	No		"			Yes
N3	15.50	7.75	"		No			No
N4	7.75	0.00	"		"			"
N5	15.50	0.00	"		"			"
N6	23.25	0.00	"		Yes			Yes
N7	7.75	3.88	"		No			No
N8	23.25	3.88	"		"			"

Member Elements

Member	Section	Material	Length ft
M1-2	SS2x4	Wood	7.75
M1-3	"	"	7.75
M1-4	"	"	7.75
M1-5	"	"	7.75
M2-2	"	"	8.66
M2-3	"	"	8.66
M3-2	"	"	8.66
M3-3	"	"	8.66
M4	"	"	3.88
M5	"	"	8.66
M6	"	"	7.75
M7	"	"	8.66
M8	"	"	3.88

Section Properties

Category	Section	Ax in ²	Iz in ⁴	Sz(+y) in ³	Sz(-y) in ³
Wood Sha	SS2x4	5.25	5.36	3.06	3.06

Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft ³
Wood	-NA-	1700000.00	0.36	40.47

Load Combination Summary

Equation Case: UBC97 12.8a

Combination: 1D+1Lr

Contributing Cases & Source

Dead Load (Dead loads)

Roof Live Load (Roof Live loads)

Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft
N1	UBC97 12.8a	0.00	615.60	-NA-
N2	"	-NA-	84.84	0.00
N6	"	-NA-	1060.37	8.89

Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1-2	893.62	-39.11	-44.81	0.01	-0.06
"	893.62	-16.89	27.50	0.01	-0.07
"	893.62	5.33	42.43	0.00	-0.06
"	893.62	27.54	0.00	0.00	0.00
M1-3	893.62	-32.36	-37.33	0.02	-0.04
"	893.62	-10.14	17.55	0.02	-0.06
"	893.62	12.07	15.05	0.01	-0.07
"	893.62	34.29	-44.81	0.01	-0.06
M1-4	-159.78	-35.69	-55.68	0.02	0.00
"	-159.78	-13.48	7.81	0.02	-0.02
"	-159.78	8.74	13.93	0.02	-0.03
"	-159.78	30.96	-37.33	0.02	-0.04
M1-5	-159.78	-24.99	0.00	0.02	0.00
"	-159.78	-2.78	35.85	0.02	-0.03
"	-159.78	19.44	14.33	0.02	-0.02
"	-159.78	41.66	-64.57	0.02	0.00
M2-2	-1062.2	126.33	0.00	0.00	0.00
"	-1006.5	14.96	203.91	-0.00	-0.24
"	-950.90	-96.41	86.28	-0.01	-0.20
"	-895.21	-207.78	-352.89	-0.01	-0.06
M2-3	-501.47	207.78	-352.89	-0.01	-0.06
"	-445.79	96.41	86.28	-0.01	-0.21
"	-390.10	-14.96	203.91	-0.01	-0.26
"	-334.42	-126.33	0.00	-0.02	-0.03
M3-2	-502.15	-209.13	-364.57	0.01	-0.00
"	-446.46	-97.76	78.49	0.01	-0.16
"	-390.78	13.61	200.02	0.01	-0.23
"	-335.09	124.98	0.00	0.02	-0.03
M3-3	116.15	-124.98	0.00	0.01	0.01
"	171.83	-13.61	200.02	0.01	-0.21
"	227.52	97.76	78.49	0.01	-0.14
"	283.20	209.13	-364.57	0.01	-0.00
M4	73.40	0.00	0.00	0.06	0.01
"	73.40	0.00	0.00	0.06	0.01
"	73.40	0.00	0.00	0.06	0.01
"	73.40	0.00	0.00	0.06	0.02
M5	-601.52	0.00	0.00	0.03	-0.02
"	-601.52	0.00	0.00	0.04	-0.04
"	-601.52	0.00	0.00	0.04	-0.04
"	-601.52	0.00	0.00	0.04	-0.03
M6	74.63	0.00	0.00	-0.04	-0.02
"	74.63	0.00	0.00	-0.04	-0.01
"	74.63	0.00	0.00	-0.04	-0.01
"	74.63	0.00	0.00	-0.04	0.00
M7	576.22	0.00	0.00	0.00	-0.04
"	576.22	0.00	0.00	0.00	-0.03
"	576.22	0.00	0.00	0.00	-0.02

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
"	576.22	0.00	0.00	0.01	-0.01
M8	-983.02	0.00	0.00	0.00	0.01
"	-983.02	0.00	0.00	0.00	0.01
"	-983.02	0.00	0.00	0.00	0.02
"	-983.02	0.00	0.00	0.01	0.01

BENDING & COMP: TRUSS 2 - MEMBER 2-2

Design based on 1997 UBC 2321 Division V and ANSI/TPI 1-1995

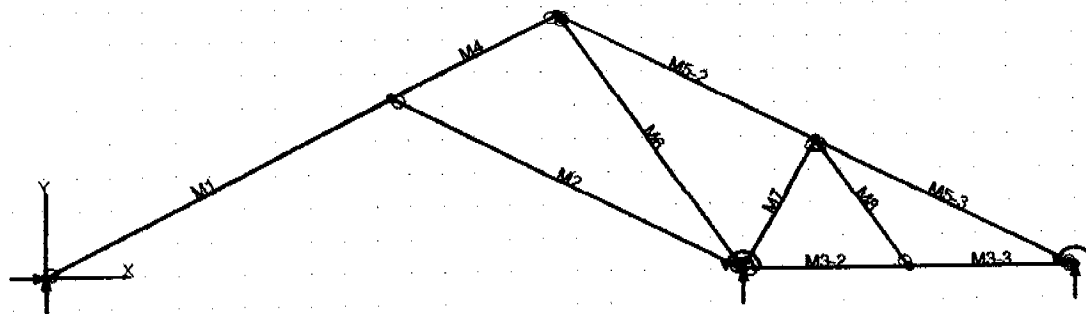
Grading:

2x or 4x Doug-fir larch: No. 2

Assumptions:

Solid sheathing on top chord of truss. Therefore,
continuous lateral support is provided along compression face
Maximum center-center spacing = 24"

Width, b	1.5 inches
Depth, d	3.5 inches
Length	8.66 feet
Max Axial Comp, C	895 lbs
Max Reaction, R	207 lbs
Max Moment, M	352 ft-lbs
Max LL Deflection	0.03 inches
Max TL Deflection	0.06 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
Size Factor, Cf bending	1.5 1.5 for 2x4, 1.3 for 2x6
Size Factor, Cf comp	1.15 1.15 for 2x4, 1.1 for 2x6
Buckling Factor, CT =	1.24
fc =	170 psi
Fce =	716 psi
Fc* =	2084 psi
F'c =	656 psi
fb =	1379 psi
F'b = Fb* =	2156 psi
Shear D/C ratio	0.50 < 1.0, Member OK
Interaction equation:	
(fc/F'c) ² +	
fb / (F'b(1-fc/Fce)) =	0.91 < 1.0, Member OK
Live Load defl ratio	0.07 < 1.0, Member OK
Total Load defl ratio	0.10 < 1.0, Member OK



Truss 3

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Paul Zacher\Desktop\Mori03_390\Truss 3.vap

Nodes

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RZ
N1	0.00	0.00	Yes		Yes			No
N2	31.00	0.00	No		"			Yes
N3	15.50	7.75	"		No			No
N4	21.00	0.00	"		Yes			Yes
N5	10.50	5.25	"		No			No
N6	23.25	3.88	"		"			"
N7	26.00	0.00	"		"			"

Member Elements

Member	Section	Material	Length ft
M1	SS2x8	Wood	11.74
M2	SS2x4	"	11.74
M3-2	"	"	5.00
M3-3	"	"	5.00
M4	SS2x8	"	5.59
M5-2	SS2x6	"	8.66
M5-3	"	"	8.66
M6	SS2x4	"	9.50
M7	"	"	4.48
M8	"	"	4.75

Section Properties

Category	Section	Ax in ²	Iz in ⁴	Sz (+y) in ³	Sz (-y) in ³
Wood Sha	SS2x4	5.25	5.36	3.06	3.06
"	SS2x6	8.25	20.80	7.56	7.56
"	SS2x8	10.88	47.63	13.14	13.14

Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft ³
Wood	-NA-	1700000.00	0.36	40.47

Load Combination Summary

Equation Case: UBC97 12.8a

Combination: 1D+1Lr

Contributing Cases & Source

Dead Load (Dead loads)

Roof Live Load (Roof Live loads)

Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft
N1	UBC97 12.8a	0.00	221.60	-NA-
N2	"	-NA-	-360.85	0.00
N4	"	-NA-	1809.75	0.00

Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1	-99.10	198.21	0.00	0.00	0.00
"	-23.66	47.32	480.15	-0.00	-0.17
"	51.79	-103.57	370.08	-0.00	-0.21
"	127.23	-254.46	-330.20	0.00	-0.13
M2	-597.31	-40.38	0.00	0.10	0.05
"	-583.85	-13.46	105.31	0.10	-0.27
"	-570.38	13.46	105.31	0.10	-0.32
"	-556.92	40.38	0.00	0.11	-0.08
M3-2	-1060.6	-28.95	-37.25	0.10	0.02
"	-1060.6	-14.62	-0.95	0.10	0.01
"	-1060.6	-0.28	11.46	0.11	0.00
"	-1060.6	14.05	0.00	0.11	0.00
M3-3	-1019.5	-14.05	0.00	0.10	0.00
"	-1019.5	0.28	11.46	0.10	0.00
"	-1019.5	14.62	-0.95	0.10	0.01
"	-1019.5	28.95	-37.25	0.10	0.02
M4	493.69	166.85	-330.20	0.00	-0.13
"	529.62	94.99	-86.30	0.00	-0.11
"	565.54	23.14	23.77	0.00	-0.10
"	601.47	-48.71	0.00	0.00	-0.08
M5-2	1338.02	-213.50	-402.39	0.08	0.05
"	1393.70	-102.13	53.28	0.07	-0.01
"	1449.39	9.25	187.41	0.07	-0.06
"	1505.07	120.62	0.00	0.07	-0.05
M5-3	1079.54	-120.62	0.00	0.09	0.04
"	1135.23	-9.25	187.41	0.08	-0.00
"	1190.91	102.13	53.28	0.08	0.02
"	1246.60	213.50	-402.39	0.08	0.05
M6	-1340.9	0.00	0.00	0.06	0.09
"	-1340.9	0.00	0.00	0.07	0.02
"	-1340.9	0.00	0.00	0.07	0.06
"	-1340.9	0.00	0.00	0.08	-0.01
M7	-461.30	0.00	0.00	0.05	-0.09
"	-461.30	0.00	0.00	0.05	-0.09
"	-461.30	0.00	0.00	0.05	-0.08
"	-461.30	0.00	0.00	0.05	-0.07
M8	71.00	0.00	0.00	0.05	0.08
"	71.00	0.00	0.00	0.05	0.08
"	71.00	0.00	0.00	0.05	0.09
"	71.00	0.00	0.00	0.05	0.09

BENDING & COMP: TRUSS 3 - MEMBER 5-2

Design based on 1997 UBC 2321 Division V and ANSI/TPI 1-1995

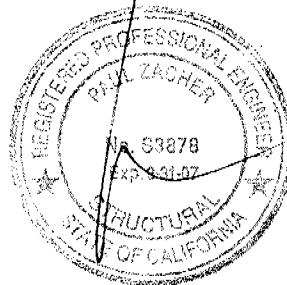
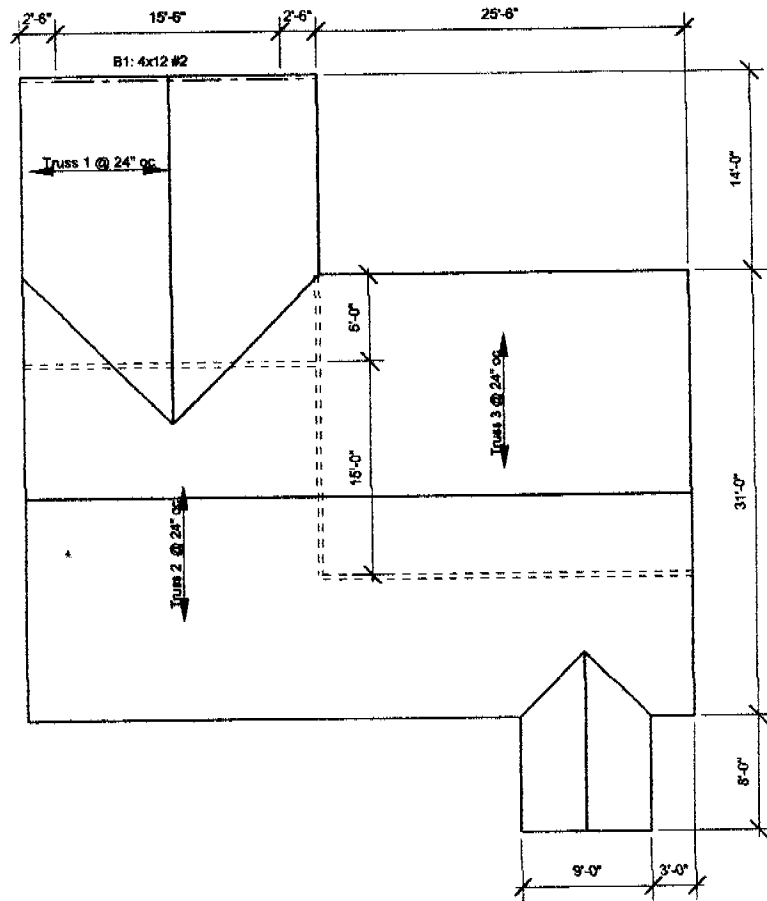
Grading:

2x or 4x Doug-fir larch: No. 2

Assumptions:

Solid sheathing on top chord of truss. Therefore,
 continuous lateral support is provided along compression face
 Maximum center-center spacing = 24"

Width, b	1.5 inches
Depth, d	5.5 inches
Length	8.66 feet
Max Axial Comp, C	1338 lbs
Max Reaction, R	213 lbs
Max Moment, M	402 ft-lbs
Max LL Deflection	0.03 inches
Max TL Deflection	0.05 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
Size Factor, Cf bending	1.3 1.5 for 2x4, 1.3 for 2x6
Size Factor, Cf comp	1.1 1.15 for 2x4, 1.1 for 2x6
Buckling Factor, CT =	1.24
fc =	162 psi
Fce=	1769 psi
Fc*=	1994 psi
F'c=	1293 psi
fb=	638 psi
F'b=Fb*=	1869 psi
Shear D/C ratio	0.33 < 1.0, Member OK
Interaction equation:	
(fc/F'c)^2 +	
fb/ (F'b(1-fc/Fce)) =	0.39 < 1.0, Member OK
Live Load defl ratio	0.07 < 1.0, Member OK
Total Load defl ratio	0.09 < 1.0, Member OK



Notes:

- A. This is a reroof project. The new roofing material shall be a Light Weight Concrete Tile. The tile shall weigh less than or equal to 7.3 psf.
- B. All structural wood members that were observed appear to be in sound condition and without structural defect.

1

ROOF PLAN - MORI

Not to Scale