

CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0317043

Insp Area: 2

Thos Bros: 337 A2

Site Address: 7458 CASTANO WY SAC

Parcel No: 031-1130-001

Sub-Type: RES

Housing (Y/N): N

CONTRACTOR

ZIMMERMAN REROOFING CO.
3675 R ST.
SACRAMENTO, CA. 95816

OWNER

CHENG KATHERINE KA-SIU
7458 CASTANO WY
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: TEAR OFF, RESHEET & REROOF 29 SQ LT WT TILE FOR SFR

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 C-39 License Number 763169 Date 11-3-03 Contractor Signature Billy Coy

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 _____

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 herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 11-3-03 Applicant/Agent Signature Billy Coy

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 STATE FUND Policy Number 713-0002021 Exp Date: 11/01/2004

(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 I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 11-3-03 Applicant Signature Billy Coy

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.

Cheng



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

TEL: 916.961.3960
FAX: 916.961.6552

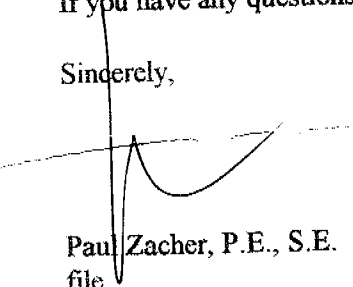
It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls that are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and 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

DESIGN LOADING:

Roof Pitch 6 in 12
Pitch Adjustment Factor 1.12

LOCATION: ROOF

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Tile	7.30	psf
Roofing felt	0.30	psf
1x4 skip sht'g	1.09	psf
1/2" OSB/ plywood	1.50	psf
2x8 rafters @ 24" oc	<u>1.32</u>	psf
Load	11.5	psf
Roof Pitch Adjustment	<u>1.36</u>	psf
Total Load	12.9	psf

LOCATION: VAULT

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Tile	7.30	psf
Roofing felt	0.30	psf
1x4 skip sht'g	1.09	psf
1/2" OSB/ plywood	1.50	psf
2x6 rafters @ 16 oc	1.51	psf
Batt/blown insul	0.50	psf
1/2" Gypboard	<u>2.50</u>	psf
Load	14.7	psf
Roof Pitch Adjustment	<u>1.74</u>	psf
Total Load	16.4	psf

The dead and live load on truss top chord is placed along the length of the top chord. Therefore, the live load is as follows:

Live Load on top chord 14.3

LOCATION: TOP CHORD

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Tile	7.30	psf
Roofing felt	0.30	psf
1/2" OSB/ plywood	1.50	psf
1x4 skip sht'g	1.09	psf
2x4 truss @ 24" oc	<u>0.64</u>	psf
Total Load	10.8	psf

LOCATION: BOTTOM CHORD

<u>MATERIAL</u>	<u>WEIGHT</u>	
Batt/blown insul	0.50	psf
2x4 truss @ 24" oc	1.28	psf
1/2" Gypboard	<u>2.50</u>	psf
Load	4.3	psf

Job #: 03-066

Date: 3/5/03

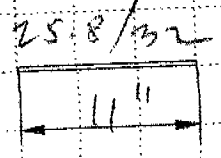
LOADING:

POF102

$Dr = 12.9 \text{ p.s.f.} \times 2' = 25.8 \text{ p.s.f.}$

$Lr = 16.0 \text{ p.s.f.} \times 2' = 32 \text{ p.s.f.}$

2x6 #2

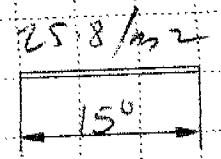


POF102

$Dr = 12.9 \text{ p.s.f.} \times 2' = 25.8 \text{ p.s.f.}$

$Lr = 16.0 \text{ p.s.f.} \times 2' = 32 \text{ p.s.f.}$

2x8 #2

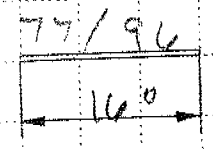


B1

$Dr = 12.9 \text{ p.s.f.} \times 6' = 77 \text{ p.s.f.}$

$Lr = 16.0 \text{ p.s.f.} \times 6' = 96 \text{ p.s.f.}$

4x12 #2

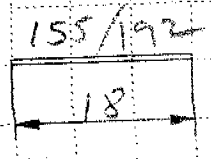


B2

$Dr = 12.9 \text{ p.s.f.} \times 12' = 155 \text{ p.s.f.}$

$Lr = 16.0 \text{ p.s.f.} \times 12' = 192 \text{ p.s.f.}$

6 3/4 x 15 GLB

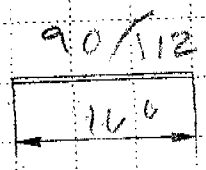


B3

$Dr = 12.9 \text{ p.s.f.} \times 7' = 90 \text{ p.s.f.}$

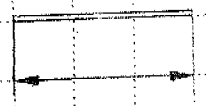
$Lr = 16.0 \text{ p.s.f.} \times 7' = 112 \text{ p.s.f.}$

6 3/4 x 9 GLB



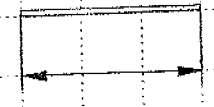
Dr =

Lr =



Dr =

Lr =



Paul Zacher - Structural Engr's
 4701 Lakeside Way
 Fair Oaks, CA 95628
 TEL: (916) 961-3960
 FAX: (916) 961-8552

Title :
 Dsgnr:
 Description :
 Scope :

Job #
 Date: 7:36PM, 5 MAR 03

Rev: 580100
 User: KW-0802944, Ver 5.6.1, 25-Oct-2002
 (c)1989-2002 ENERCALC Engineering Software

Timber Beam & Joist

c:\paulpk and assoc\test.ecw\Calculations

Description RAFTERS AND BEAMS

Calculations are designed to 1997 NDS and 1997 UBC Requirements

Timber Member Information

		rafter 2x6	rafter 2x8	B1 4x12	B2 6.75x16.0	B3 6.75x9.0
Timber Section						
Beam Width	in	1.500	1.500	3.500	6.750	6.750
Beam Depth	in	5.500	7.250	11.250	15.000	9.000
Le: Unbraced Length	ft	0.00	0.00	2.00	2.00	2.00
Timber Grade		Douglas Fir - Larch, Douglas Fir - Larch, Douglas Fir - Larch, Douglas Fir - Larch, Douglas Fir - Larch				
Fb - Basic Allow	psi	875.0	875.0	875.0	1,350.0	875.0
Fv - Basic Allow	psi	95.0	95.0	95.0	85.0	95.0
Elastic Modulus	ksi	1,600.0	1,600.0	1,600.0	1,600.0	1,600.0
Load Duration Factor		1.250	1.250	1.250	1.250	1.250
Member Type		Sawn	Sawn	Sawn	GluLam	GluLam
Repetitive Status		Repetitive	Repetitive	No	No	No

Center Span Data

		11.92	15.00	16.00	18.00	16.50
Span	ft					
Dead Load	#/ft	25.80	25.80	77.00	155.00	90.00
Live Load	#/ft	32.00	32.00	96.00	192.00	112.00

Results

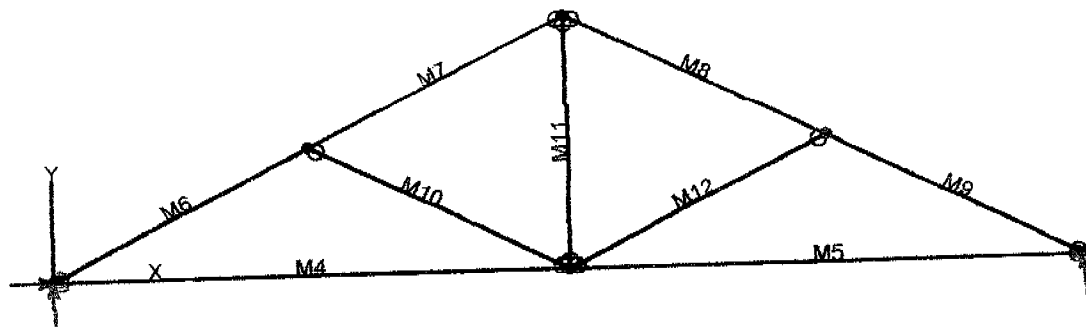
Ratio =		0.9962	0.9835	0.7510	0.4092	0.8281
Mmax @ Center	in-k	12.32	19.51	66.43	168.64	82.49
@ X =	ft	5.96	7.50	8.00	9.00	6.25
f _b : Actual	psi	1,628.9	1,484.5	899.8	666.2	905.3
F _b : Allowable	psi	1,635.2	1,509.4	1,198.1	1,628.1	1,093.1
		Bending OK	Bending OK	Bending OK	Bending OK	Bending OK
f _v : Actual	psi	58.1	55.0	46.8	40.0	37.5
F _v : Allowable	psi	118.8	118.8	118.8	106.3	118.8
		Shear OK	Shear OK	Shear OK	Shear OK	Shear OK

Reactions

			153.77	193.50	616.00	1,395.00	742.50
@ Left End	DL	lbs					
	LL	lbs	190.72	240.00	768.00	1,728.00	924.00
	Max. DL+LL	lbs	344.49	433.50	1,384.00	3,123.00	1,666.50
@ Right End	DL	lbs	153.77	193.50	616.00	1,395.00	742.50
	LL	lbs	190.72	240.00	768.00	1,728.00	924.00
	Max. DL+LL	lbs	344.49	433.50	1,384.00	3,123.00	1,666.50

Deflections

		Ratio OK	Deflection OK	Deflection OK	Deflection OK	Deflection OK
Center DL Defl	in	-0.352	-0.386	-0.171	-0.121	-0.229
L/Defl Ratio		406.1	466.8	1,123.6	1,792.2	865.5
Center LL Defl	in	-0.437	-0.478	-0.213	-0.149	-0.285
L/Defl Ratio		327.5	376.4	901.2	1,446.8	695.5
Center Total Defl	in	-0.789	-0.864	-0.384	-0.270	-0.513
Location	ft	5.960	7.500	8.000	9.000	8.250
L/Defl Ratio		181.3	208.4	500.1	800.5	385.6



0

VisualAnalysis 3.50.c Report

08/29/02 17:20:09

Project: truss 1

File: Untitled.Vap

Company: PK Associates Engineers

Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

Nodes

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RZ
N1	0.00	0.00	Yes		Yes		No	
N2	25.00	0.00	No		"		"	
N3	12.50	6.25	"		No		"	
N4	12.50	0.00	"		"		"	
N5	6.25	3.13	"		"		"	
N6	18.75	3.13	"		"		"	

Member Elements

Member	Section	Material	Length ft
M4	SS2x4	Wood	12.50
M5	"	"	12.50
M6	"	"	6.99
M7	"	"	6.99
M8	"	"	6.99
M9	"	"	6.99
M10	"	"	6.99
M11	"	"	6.25
M12	"	"	6.99

Section Properties

Category	Section	Ax in ²	Iz in ⁴	Sy+ in ³	Sy- 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: Equation Case 1
Combination: +1D+1L+1Lr
Contributing Cases & Source
Service Case 1 (Dead loads)
Service Case 2 (Roof Live loads)

Member Uniform Loads

This item is empty. Check the selection state, or report properties.

Nodal Reactions

Node	Load Case	FX lbs	FY lbs	MZ lb-ft
N1	Equation Case 1	-0.00	809.07	-NA-
N2	"	-NA-	809.07	-NA-

Member Results

Member	Axial lbs	Vy lbs	Mz lb-ft	Dy in
M4	1267.92	-66.40	-158.17	-0.0968
"	1267.92	-30.57	43.4827	-0.2256
"	1267.92	5.2627	96.2075	-0.2507
"	1267.92	41.0960	0.0000	-0.0000
M5	1267.92	-41.10	0.0000	-0.0000
"	1267.92	-5.2627	96.2075	-0.2507
"	1267.92	30.5706	43.4827	-0.2255
"	1267.92	66.4040	-158.17	-0.0968
M6	-1477.51	119.86	0.0000	-0.0000
"	-1425.22	15.2775	156.78	-0.1423
"	-1372.93	-89.31	70.5607	-0.1441
"	-1320.64	-193.89	-258.64	-0.0935
M7	-1029.80	193.89	-258.64	-0.0935
"	-977.51	89.3059	70.5607	-0.1747
"	-925.22	-15.28	156.78	-0.2035
"	-872.93	-119.86	0.0000	-0.0918
M8	-1029.80	-193.89	-258.64	-0.0744
"	-977.51	-89.31	70.5607	-0.1556
"	-925.22	15.2775	156.78	-0.1844
"	-872.93	119.86	0.0000	-0.0728
M9	-1477.51	-119.86	0.0000	0.0191
"	-1425.22	-15.28	156.78	-0.1232
"	-1372.93	89.3059	70.5607	-0.1250
"	-1320.64	193.89	-258.64	-0.0744
M10	-484.72	0.0000	0.0000	-0.0770
"	-484.72	0.0000	0.0000	-0.0735
"	-484.72	0.0000	0.0000	-0.0701
"	-484.72	0.0000	0.0000	-0.0666
M11	566.36	0.0000	0.0000	-0.0213
"	566.36	0.0000	0.0000	-0.0213
"	566.36	0.0000	0.0000	-0.0213
"	566.36	0.0000	0.0000	-0.0213
M12	-484.72	-0.0000	0.0000	-0.0961
"	-484.72	-0.0000	-0.0000	-0.0926
"	-484.72	-0.0000	-0.0000	-0.0891
"	-484.72	-0.0000	-0.0000	-0.0857

BENDING & COMP: TRUSS 1 - MEMBER 6

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

Grading:

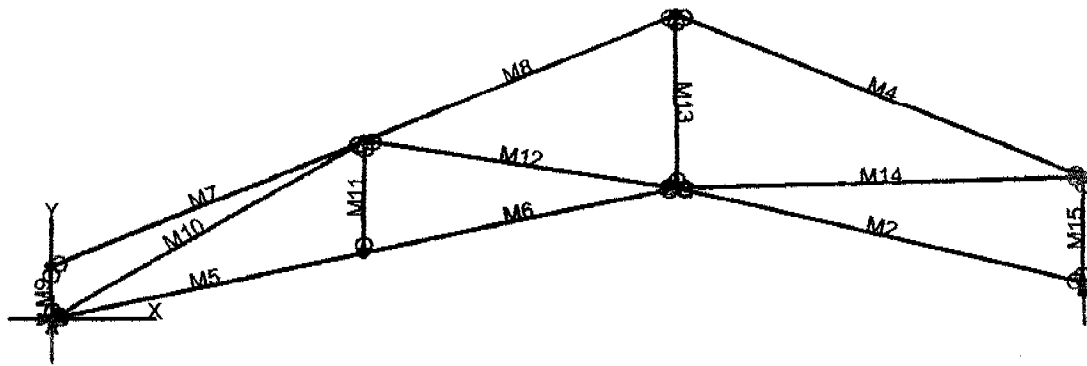
2x or 4x

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	6.99 feet
Max Axial Comp, C	1320 feet
Max Reaction, R	193 lbs
Max Moment, M	258 ft-lbs
Max LL Deflection	0.04 feet
Max TL Deflection	0.09 feet
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 =	1.19
fc =	251 psi
Fce =	1059 psi
Fc* =	2084 psi
F'c =	915 psi
fb =	1011 psi
F'b = Fb* =	2156 psi
Shear D/C ratio	0.46 < 1.0, Member OK
Interaction equation: (fc/F'c)^2 +	
fb / (F'b(1-fc/Fce)) =	0.69 < 1.0, Member OK
Live Load defl ratio	0.11 < 1.0, Member OK
Total Load defl ratio	0.19 < 1.0, Member OK



VisualAnalysis 3.50.c Report

09/24/02 15:42:40

Project: Truss 1

File: Untitled.Vap

Company: PK Associates Engineers

Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

Nodes

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RZ
N1	0.00	0.00	Yes		Yes		No	
N2	0.00	1.00	No		No			
N3	19.00	0.70	"		Yes			
N4	11.50	5.75	"		No			
N5	11.50	2.50	"		"			
N6	19.00	2.70	"		"			
N7	5.75	1.25	"		"			
N8	5.75	3.38	"		"			

Member Elements

Member	Section	Material	Length ft
M2	SS2x4	Wood	7.71
M4	"	"	8.10
M5	"	"	5.88
M6	"	"	5.88
M7	"	"	6.22
M8	"	"	6.22
M9	"	"	1.00
M10	"	"	6.67
M11	"	"	2.13
M12	"	"	5.82
M13	"	"	3.25
M14	"	"	7.50
M15	"	"	2.00

Section Properties

Category	Section	Ax in ²	Iz in ⁴	Sy+ in ³	Sy- 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: Equation Case 1

Combination: +1D+1L+1Lr

Contributing Cases & Source
 Service Case 1 (Dead loads)
 Service Case 2 (Roof Live loads)

Member Uniform Loads

This item is empty. Check the selection state, or report properties.

Nodal Reactions

Node	Load Case	FX lbs	FY lbs	MZ lb-ft
N1	Equation Case 1	0.00	599.47	-NA-
N3	"	-NA-	599.12	-NA-

Member Results

Member	Axial lbs	Vy lbs	Mz lb-ft	Dy in
M2	-7.7400	-32.25	-0.0000	0.0130
"	-2.5800	-10.75	55.1381	-0.0769
"	2.5800	10.7500	55.1381	-0.1035
"	7.7400	32.2500	0.0000	-0.0667
M4	-980.20	-188.25	-0.0000	0.0150
"	-929.16	-62.75	337.85	-0.4383
"	-878.12	62.7500	337.85	-0.4637
"	-827.09	188.25	0.0000	-0.0614
M5	1254.95	22.6827	0.0000	-0.0000
"	1258.54	6.1994	28.2444	-0.0494
"	1262.12	-10.28	24.2386	-0.0802
"	1265.70	-26.77	-12.02	-0.0952
M6	1254.07	26.7673	-12.02	-0.0952
"	1257.65	10.2839	24.2386	-0.1081
"	1261.23	6.1994	28.2444	-0.1052
"	1264.82	-22.68	0.0000	-0.0837
M7	-46.30	112.09	0.0000	-0.0005
"	-6.5570	15.8749	132.19	-0.1094
"	33.1846	-80.34	65.3417	-0.1241
"	72.9263	-176.56	-200.53	-0.0985
M8	-978.59	176.56	-200.53	-0.0985
"	-938.85	80.3417	65.3417	-0.1504
"	-899.11	-15.87	132.19	-0.1620
"	-859.37	-112.09	0.0000	-0.0794
M9	-121.28	-0.0000	-0.0000	-0.0000
"	-121.28	-0.0000	-0.0000	0.0003
"	-121.28	-0.0000	-0.0000	0.0006
"	-121.28	-0.0000	0.0000	0.0009
M10	-1427.54	-0.0000	-0.0000	0.0000
"	-1427.54	-0.0000	-0.0000	0.0326
"	-1427.54	-0.0000	-0.0000	0.0651
"	-1427.54	-0.0000	0.0000	0.0977
M11	54.7849	-0.0000	-0.0000	0.0300
"	54.7849	-0.0000	-0.0000	0.0328
"	54.7849	-0.0000	-0.0000	0.0356
"	54.7849	-0.0000	0.0000	0.0384
M12	-398.59	0.0000	0.0000	-0.0839
"	-398.59	0.0000	0.0000	-0.0796
"	-398.59	0.0000	0.0000	-0.0754
"	-398.59	0.0000	0.0000	-0.0711
M13	361.66	-0.0000	0.0000	-0.0373
"	361.66	-0.0000	-0.0000	-0.0329
"	361.66	-0.0000	-0.0000	-0.0284

"	361.66	-0.0000	-0.0000	-0.0240
M14	837.37	-0.0000	0.0000	-0.0786
"	837.37	-0.0000	-0.0000	-0.0533
"	837.37	-0.0000	-0.0000	-0.0280
"	837.37	-0.0000	-0.0000	-0.0027
M15	-565.95	-0.0000	0.0000	0.0437
"	-565.95	-0.0000	-0.0000	0.0478
"	-565.95	-0.0000	-0.0000	0.0518
"	-565.95	-0.0000	-0.0000	0.0559

BENDING & COMP: TRUSS 1 - MEMBER 4

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

Grading:

2x or 4x

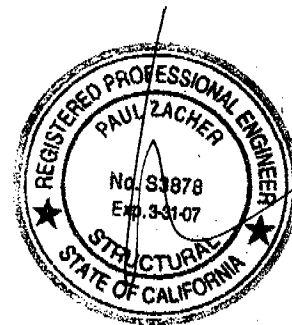
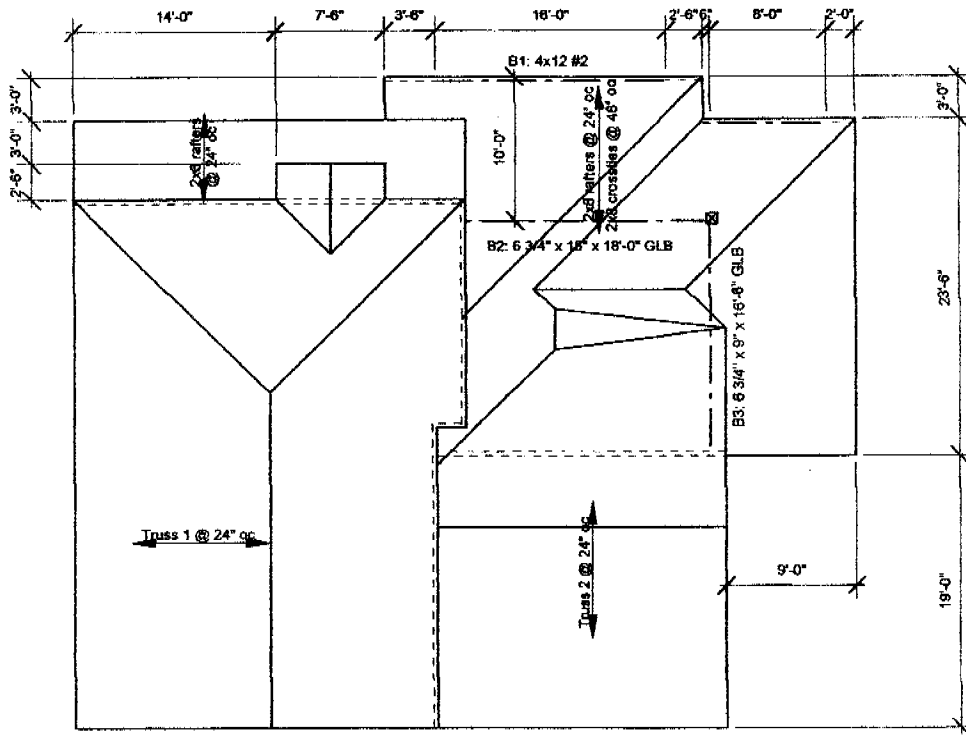
Doug-fir larch: No. 2

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	8.1 feet
Max Axial Comp, C	878 feet
Max Reaction, R	62 lbs
Max Moment, M	337 ft-lbs
Max LL Deflection	0.23 feet
Max TL Deflection	0.46 feet
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 =	1.22
fc =	167 psi
Fce =	809 psi
Fc* =	2084 psi
F'c =	730 psi
fb =	1320 psi
F*b = Fb* =	2156 psi
Shear D/C ratio	0.15 < 1.0, Member OK
Interaction equation:	
(fc/F'c)^2 +	
fb/(F*b(1-fc/Fce)) =	0.82 < 1.0, Member OK
Live Load defl ratio	0.57 < 1.0, Member OK
Total Load defl ratio	0.85 < 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.

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ROOF PLAN - CHENG

Not to Scale

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