CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0010910
Insp Area: 4

Site Address: 2935 AZEVEDO DR SAC
Parcel No: 225-0765-002

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

CONTRACTOR

OWNER
CHAVEZ JUAN & MARTHA
2935 AZEVEDO DR
SACRAMENTO CA 95833

ARCHITECT

Nature of Work: REROOF - STANDARD WEIGHT CONCRETE TILE OVER 1/2" SOLID SHEATHING

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'sAddress_____

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_____ License Number_____ Date_____ Contractor 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):

Such 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).

PAID
CITY OF SACRAMENTO

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

Date 9-15-00 Owner Signature J. Manuel Chavez SEP 15 2000

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 improvements to be constructed do 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.

NEIGHBORHOOD PLANNING AND DEVELOPMENT SERVICES

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 9-15-00 Applicant/Agent Signature J. Manuel Chavez

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 Policy Number Exp Date

_____ (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 9-15-00 Applicant Signature J. Manuel Chavez

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.

CITY OF SACRAMENTO
1231 I ST. ROOM 200
BUILDING INSPECTIONS DIVISION

PERMIT NO. 001090

AREA NO. 4

WHEN CORRECTIONS HAVE BEEN MADE, CALL **264-5191** FOR REINSPECTION OF WORK.

JOB LOCATION 2935 Azevedo DR

INSPECTION REQUESTED Frame

THE UNDERSIGNED ◉ BUILDING ○ PLUMBING ○ MECHANICAL ○ ELECTRICAL
INSPECTOR THIS DAY INSPECTED THIS STRUCTURE FOR THE REQUESTED INSPECTION AND FOUND THE FOLLOWING VIOLATIONS OF CITY AND/OR STATE LAWS GOVERNING SAME:

(1) Plans indicate Doubling 2x6 @ above, to the Rear of LH side Hip @ one Area, this has not been provided
(2) Jack Rafters are to be on MAX 24" C x C, Some Areas are over
(3) Rafters Adjacent to Doubling area are over 24" on ℄
(4) New Purlin Struts are over 6' on ℄
(5) Rafters are to be placed on opposite sides from each other.

INSPECTOR Richard Hess DATE 9/30/00

BUILDING INSPECTIONS 264-5716

INSPECTOR'S COPY

564 · 8504 000910

Chavez

Paul Zacher – Structural Engineers
4701 Lakeside Way
Fair Oaks, CA 95628
TEL: 916.961.3960
FAX: 916.961.6552

Paul Zacher Structural Engineers

September 8, 2000

CITY OF SACRAMENTO
PERMIT ASSISTANCE
SEP 14 2000
RECEIVED

REGISTERED PROFESSIONAL ENGINEER
PAUL ZACHER
No. S3878
Exp. 3-31-03
STRUCTURAL
STATE OF CALIFORNIA

Chavez
2935 Azevedo Drive
Sacramento, CA 95833
TEL:
FAX:

Attn.: Mr. Chavez,

re: Job 2000_306: CHAVEZ

Subject: Structural Investigation Report of the Roof for the Residence located at 2935 Azevedo Drive, Sacramento, CA 95833.

As requested by Mr. Chavez, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site September 8, 2000. The investigation was made to determine the existing condition of the structure. All information, data and analysis contained within this report are based on the 1997 Uniform Building Code.

The following is based on visual observations with no subsurface investigation being made.

DEPT. OF PLANNING & DEVELOPMENT
APPROVED
UNDER TITLE 15 CITY CODE
City of SACRAMENTO, CALIF.
BUILDING INSPECTION DIVISION

This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.
The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

DESCRIPTION:

Type of Facility:	Residence.
Year Built:	Estimated 1970's vintage.
Occupancy:	Residential.
No. of Stories:	One.
Dimensions:	Approximately 2000 square feet with a first story plate height of 8 feet.

REVIEWED BY: [signature] 9/15/00

CONSTRUCTION:

Roof:
The roof covering will consist of a Standard Weight Concrete Tile over 1/2" solid sheathing. The living area is framed with pre-engineered wood trusses spaced at 24" on center except for the vaulted ceiling areas. The vaulted ceiling is constructed of 2x6 rafters spaced at 24" on center supported at the ridge by a 4x beam. The garage area is framed with pre-engineered wood trusses spaced at 24" on center.

CONCLUSIONS:

Roof:
The living area lacks sufficient structural capacity for the applied live and dead loads. The garage has sufficient structural capacity for the applied live and dead loads.

Paul Zacher – Structural Engineers
4701 Lakeside Way
Fair Oaks, CA 95628
TEL: 916.961.3960
FAX: 916.961.6552

RECOMMENDATIONS:

If any of the following recommendations do not correspond to actual field conditions, the engineer of record shall be notified for further investigation and evaluation before continuing work.

Living Area:

1. Scab a 2x6 rafter to the existing 2x6 rafters with 16d's @ 12" on center where the span is greater than 11'-8". See detail 1.

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	4	in 12
Pitch Adjustment Factor	1.05	

LOCATION: ROOF

MATERIAL	WEIGHT	
Standard Weight Tile	9.30	psf
Roofing felt	0.30	psf
1x4 skip sht'g	1.09	psf
1/2" OSB/ plywood	1.50	psf
2x6 rafters @ 24" oc	1.00	psf
Load	13.2	psf
Roof Pitch Adjustment	0.71	psf
Total Load	13.9	psf

LOCATION: VAULT

MATERIAL	WEIGHT	
Standard Weight Tile	9.30	psf
Roofing felt	0.30	psf
1/2" OSB/ plywood	1.50	psf
1x4 skip sht'g	1.09	psf
2x6 rafters @ 24" oc	1.00	psf
Batt/blown insul	0.50	psf
1/2" Gypboard	2.50	psf
Load	16.2	psf
Roof Pitch Adjustment	0.88	psf
Total Load	17.1	psf

LOCATION: TOP CHORD

MATERIAL	WEIGHT	
Standard Weight Tile	9.30	psf
Roofing felt	0.30	psf
1/2" OSB/ plywood	1.50	psf
1x4 skip sht'g	1.09	psf
2x4 truss @ 24" oc	0.64	psf
Load	12.8	psf
Roof Pitch Adjustment	0.69	psf
Total Load	13.5	psf

LOCATION: BOTTOM CHORD

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

P.K. Zacher, S.E.
Job #: 00-306
Date: 9/9/00

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

LOADING

RAFTER

D_R = 13.9 psf × 2' = 27.8 plf
L_R = 16.0' × 2' = 32'

2×6 #2

27.8/32

11'8

VAULT

D_R = 17.1 psf × 2' = 34.2 plf
L_R = 16.0' × 2' = 32'

2×6 #2

34.2/32

10'4

#1

D_R = 17.8 psf × 4' = 71 plf
L_R = 16.0' × 4' = 64'

4×12 #2

71/64

16'0

#2

D_{R2} = 17.1 psf × 7' = 120 plf
L_R = 16.0' × 7' = 112'

4×12 #1

120/112

16'0

#3

D_R = 17.1 psf × 7' = 128 plf
L_R = 16.0' × 8' = 120'

4×12 #1

128/120

12'6

RAFTER

D_R = 13.9 psf × 2' = 27.8 plf
L_R = 16.0' × 2' = 32'

2×6

27.8/32

14'9

Paul Zacher - Structural Engineers
4701 Lakeside Way
Fair Oaks
TEL: (916) 961-3960
FAX: (916) 961-6552

Title :
Dsgnr:
Description :

Job #
Date: 1:29PM, 9 SEP 00

Scope :

Rev: 510304
User: KW-0602844, Ver 5.1.3, 22-Jun-1999, Win32
(c) 1983-99 ENERCALC

Timber Beam & Joist

c:\enercalc\test.ecw:Calculations

Description RAFTERS AND BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

		rafter	vault	B1	B2	B3	rafter
Timber Section		2x6	2x6	4x12	4x12	4x12	2-2x6
Beam Width	in	1.500	1.500	3.500	3.500	3.500	3.000
Beam Depth	in	5.500	5.500	11.250	11.250	11.250	5.500
Le: Unbraced Length	ft	0.00	0.00	0.00	0.00	0.00	0.00
Timber Grade		ouglas Fir - Larch,	ouglas Fir - Larch	Douglas Fir - Larch,	Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch,
Fb - Basic Allow	psi	875.0	875.0	875.0	1,000.0	1,000.0	875.0
Fv - Basic Allow	psi	95.0	95.0	95.0	95.0	95.0	95.0
Elastic Modulus	ksi	1,600.0	1,600.0	1,600.0	1,700.0	1,700.0	1,600.0
Load Duration Factor		1.250	1.250	1.250	1.250	1.250	1.250
Member Type		Sawn	Sawn	Sawn	Sawn	Sawn	Sawn
Repetitive Status		Repetitive	Repetitive	No	No	No	Repetitive

Center Span Data

Span	ft	11.67	10.33	16.00	16.00	12.50	14.75
Dead Load	#/ft	27.80	34.20	71.00	120.00	128.00	27.80
Live Load	#/ft	32.00	32.00	64.00	112.00	120.00	32.00

Results

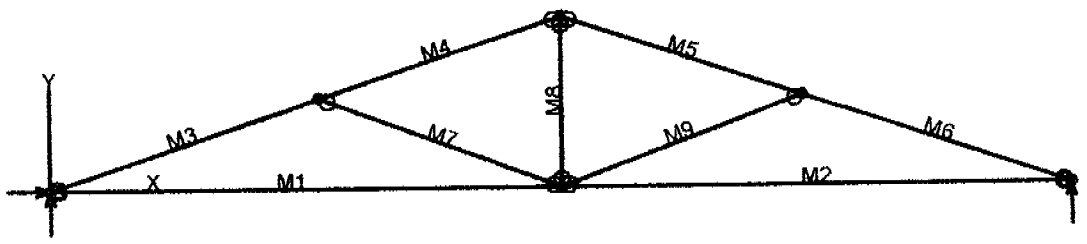
		Ratio =	0.9879	0.8569	0.5836	0.8776	0.5726	0.7891
Mmax @ Center	in-k		12.22	10.60	51.84	89.09	58.12	19.52
@ X =	ft		5.83	5.16	8.00	8.00	6.25	7.37
fb : Actual	psi		1,615.4	1,401.1	702.2	1,206.7	787.3	1,290.3
Fb : Allowable	psi		1,635.2	1,635.2	1,203.1	1,375.0	1,375.0	1,635.2
			Bending OK	Bending OK	Bending OK	Bending OK	Bending OK	Bending OK
fv : Actual	psi		58.9	56.7	36.5	62.8	50.5	37.8
Fv : Allowable	psi		118.8	118.8	118.8	118.8	118.8	118.8
			Shear OK	Shear OK	Shear OK	Shear OK	Shear OK	Shear OK

Reactions

@ Left End	DL	lbs	162.21	176.64	568.00	960.00	800.00	205.02
	LL	lbs	186.72	165.28	512.00	896.00	750.00	236.00
	Max. DL+LL	lbs	348.93	341.92	1,080.00	1,856.00	1,550.00	441.02
@ Right End	DL	lbs	162.21	176.64	568.00	960.00	800.00	205.02
	LL	lbs	186.72	165.28	512.00	896.00	750.00	236.00
	Max. DL+LL	lbs	348.93	341.92	1,080.00	1,856.00	1,550.00	441.02

Deflections

		Ratio OK	Deflection OK	Deflection OK	Deflection OK	Deflection OK	Deflection OK
Center DL Defl	in	-0.349	-0.263	-0.158	-0.251	-0.100	-0.445
L/Defl Ratio		401.7	470.8	1,218.6	766.1	1,506.1	397.9
Center LL Defl	in	-0.401	-0.246	-0.142	-0.234	-0.093	-0.512
L/Defl Ratio		349.0	503.1	1,351.9	820.8	1,606.5	345.6
Center Total Defl	in	-0.750	-0.510	-0.300	-0.485	-0.193	-0.957
Location	ft	5.835	5.165	8.000	8.000	6.250	7.375
L/Defl Ratio		186.7	243.2	640.9	396.2	777.4	185.0


Y
X
M1
M2
M3
M4
M5
M6
M7
M8
M9

VisualAnalysis 3.50.c Report

09/09/00 13:33:40
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	9.50	0.00	No	No	"
N3	19.00	0.00	"	Yes	"
N4	5.00	1.67	"	No	"
N5	14.00	1.67	"	"	"
N6	9.50	3.17	"	"	"

Member Elements

Member	Section	Material	Length *ft*
M1	SS2x4	Wood	9.50
M2	"	"	9.50
M3	"	"	5.27
M4	"	"	4.74
M5	"	"	4.74
M6	"	"	5.27
M7	"	"	4.80
M8	"	"	3.17
M9	"	"	4.80

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**	**642.20**	-NA-
N3	"	-NA-	642.20	-NA-

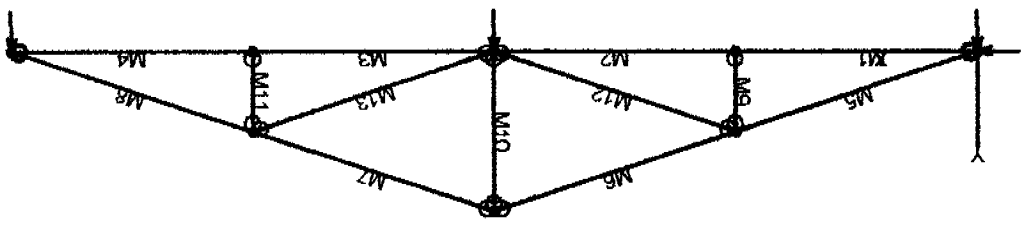
Member Results

Member	Axial lbs	Vy lbs	Mz lb-ft	Dy in
M1	1464.34	-48.97	-77.14	-0.1134
"	1464.34	-21.74	34.5944	**-0.1443**
"	1464.34	5.4963	60.3089	-0.1227
"	**1464.34**	32.7297	0.0000	-0.0000
M2	1464.34	-32.73	0.0000	-0.0000
"	1464.34	-5.4963	60.3089	-0.1227
"	1464.34	21.7370	34.5944	-0.1443
"	1464.34	48.9703	-77.14	-0.1134
M3	**-1582.00**	114.18	0.0000	-0.0000
"	-1550.84	20.9116	**118.28**	-0.0891
"	-1519.69	-72.36	73.0809	-0.1169
"	-1488.54	**-165.63**	**-135.60**	-0.1097
M4	-1091.50	154.52	-135.60	-0.1097
"	-1063.51	70.5657	42.0199	-0.1323
"	-1035.53	-13.39	87.2190	-0.1400
"	-1007.54	-97.35	-0.0000	-0.1117
M5	-1091.50	-154.52	-135.60	-0.0978
"	-1063.51	-70.57	42.0199	-0.1205
"	-1035.53	13.3928	87.2190	-0.1282
"	-1007.54	97.3513	0.0000	-0.0998
M6	-1582.00	-114.18	-0.0000	**0.0119**
"	-1550.84	-20.91	118.28	-0.0772
"	-1519.69	72.3569	73.0809	-0.1050
"	-1488.54	**165.63**	-135.60	-0.0978
M7	-509.55	0.0000	0.0000	-0.0998
"	-509.55	0.0000	0.0000	-0.0973
"	-509.55	0.0000	0.0000	-0.0948
"	-509.55	0.0000	0.0000	-0.0923
M8	452.51	-0.0000	-0.0000	-0.0187
"	452.51	-0.0000	0.0000	-0.0187
"	452.51	-0.0000	-0.0000	-0.0187
"	452.51	-0.0000	-0.0000	-0.0187
M9	-509.55	0.0000	0.0000	-0.1128
"	-509.55	0.0000	0.0000	-0.1103
"	-509.55	0.0000	0.0000	-0.1078
"	-509.55	0.0000	0.0000	-0.1053

BENDING & COMP: TRUSS 1 - MEMBER 3
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	5.27 feet	
Max Axial Comp, C	1488 lbs	
Max Reaction, R	165 lbs	
Max Moment, M	135 ft-lbs	
Max LL Deflection	0.04 inches	
Max TL Deflection	0.10 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 =	1.15	
fc =	283 psi	
Fce=	1789 psi	
Fc*=	2084 psi	
F'c=	1326 psi	
fb=	529 psi	
F'b=Fb*=	2156 psi	
Shear D/C ratio	0.40 < 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	0.15 < 1.0, Member OK	
Total Load defl ratio	0.28 < 1.0, Member OK	


M1
M2
M3
M4
M5
M6
M7
M8
M9
M10
M11
M12
M13

VisualAnalysis 3.50.c Report

09/09/00 13:40:30
Project: Truss 2
File: C:\Program Files\IES\VA35\truss 2.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	7.25	0.00	No	No	"
N3	14.50	0.00	"	Yes	"
N4	21.75	0.00	"	No	"
N5	29.00	0.00	"	Yes	"
N6	7.25	2.42	"	No	"
N7	21.75	2.42	"	"	"
N8	14.50	4.83	"	"	"

Member Elements

Member	Section	Material	Length *ft*
M1	SS2x4	Wood	7.25
M2	"	"	7.25
M3	"	"	7.25
M4	"	"	7.25
M5	"	"	7.64
M6	"	"	7.64
M7	"	"	7.64
M8	"	"	7.64
M9	"	"	2.42
M10	"	"	4.83
M11	"	"	2.42
M12	"	"	7.64
M13	"	"	7.64

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**	**281.12**	-NA-
N3	"	-NA-	**1398.16**	-NA-
N5	"	-NA-	281.12	-NA-

Member Results

Member	Axial *lbs*	Vy *lbs*	Mz *lb-ft*	Dy *in*
M1	280.38	-36.18	-36.27	-0.0283
"	280.38	-15.39	25.9209	-0.0475
"	280.38	5.3889	38.0109	-0.0425
"	280.38	26.1723	0.0000	-0.0000
M2	280.38	-32.64	-46.88	-0.0000
"	280.38	-11.86	6.7551	-0.0137
"	280.38	8.9277	10.2930	-0.0244
"	280.38	29.7110	-36.27	-0.0283
M3	280.38	-29.71	-36.27	-0.0283
"	280.38	-8.9277	10.2930	-0.0244
"	280.38	11.8556	6.7551	-0.0137
"	280.38	32.6390	-46.88	-0.0000
M4	280.38	-26.17	0.0000	-0.0000
"	280.38	-5.3889	38.0109	-0.0425
"	280.38	15.3944	25.9209	-0.0475
"	280.38	36.1777	-36.27	-0.0283
M5	-346.68	153.06	0.0000	-0.0000
"	-301.53	17.8105	**216.80**	-0.1894
"	-256.39	-117.44	89.8917	-0.1474
"	-211.24	-252.69	**-380.73**	-0.0286
M6	566.86	**252.79**	-380.73	-0.0286
"	611.84	117.49	89.8917	-0.1493
"	656.82	-17.82	216.80	**-0.1935**
"	**701.79**	-153.12	0.0000	-0.0062
M7	566.86	**-252.79**	-380.73	-0.0252
"	611.84	-117.49	89.8917	-0.1459
"	656.82	17.8179	216.80	-0.1900
"	701.79	153.12	0.0000	-0.0028
M8	-346.68	-153.06	0.0000	0.0035
"	-301.53	-17.81	216.80	-0.1860
"	-256.39	117.44	89.8917	-0.1439
"	-211.24	252.69	-380.73	-0.0252
M9	65.8888	-0.0000	-0.0000	0.0027
"	65.8888	-0.0000	-0.0000	0.0039
"	65.8888	-0.0000	-0.0000	0.0051
"	65.8888	-0.0000	0.0000	0.0064
M10	-733.36	0.0000	0.0000	0.0055
"	-733.36	0.0000	0.0000	0.0055
"	-733.36	0.0000	0.0000	0.0055
"	-733.36	0.0000	0.0000	0.0055
M11	65.8888	0.0000	0.0000	0.0046
"	65.8888	0.0000	0.0000	0.0058
"	65.8888	0.0000	0.0000	0.0070

"	65.8888	0.0000	0.0000	**0.0082**
M12	**-946.75**	-0.0000	0.0000	-0.0246
"	-946.75	-0.0000	-0.0000	-0.0158
"	-946.75	-0.0000	-0.0000	-0.0071
"	-946.75	-0.0000	-0.0000	0.0017
M13	-946.75	0.0000	0.0000	-0.0281
"	-946.75	0.0000	0.0000	-0.0193
"	-946.75	0.0000	0.0000	-0.0105
"	-946.75	0.0000	0.0000	-0.0017

BENDING & COMP: TRUSS 2 - MEMBER 5

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

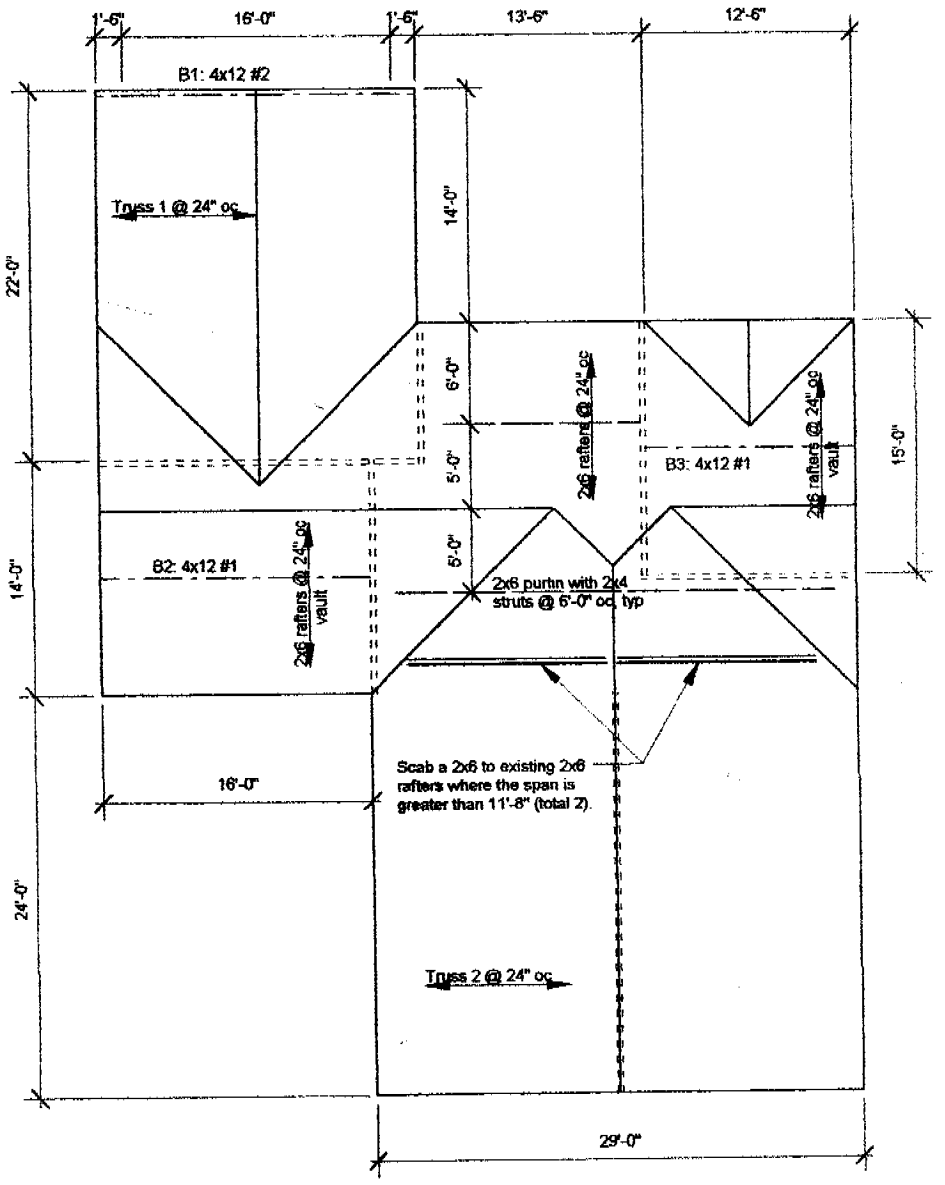
Grading:

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	7.64	feet
Max Axial Comp, C	211	lbs
Max Reaction, R	232	lbs
Max Moment, M	380	ft-lbs
Max LL Deflection	0.08	inches
Max TL Deflection	0.18	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 =	1.21	
fc =	40	psi
Fce=	900	psi
Fc*=	2084	psi
F'c=	800	psi
fb=	1489	psi
F'b=Fb*=	2156	psi
Shear D/C ratio	0.56	< 1.0, Member OK
Interaction equation:		
(fc/F'c)^2 +		
fb/ (F'b(1-fc/Fce)) =	0.73	< 1.0, Member OK
Live Load defl ratio	0.21	< 1.0, Member OK
Total Load defl ratio	0.35	< 1.0, Member OK



REGISTERED PROFESSIONAL ENGINEER
PAUL ZACHER
No. S3878
Exp. 8-31-03
STRUCTURAL
STATE OF CALIFORNIA

Notes:

1. 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 7.0 psf.
2. All rafters are 2x6 DF#2 and hips and valleys are 2x8 DF#2 unless otherwise noted.
3. All existing rafter, hips, valleys, rafter ties, and purlins are braced per UBC Section 2320.12 "Roof and Ceiling Framing" unless otherwise shown.
4. All structural wood members that were observed appear to be in sound condition and without structural defect.

1 ROOF PLAN - CHAVEZ

Not to Scale

OWNER-BUILDER VERIFICATION

ATTENTION PROPERTY OWNERS

An owner-builder building permit has been applied for in your name and bearing your signature.

Please complete and return this information in the envelope provided at your earliest opportunity to avoid unnecessary delay in processing and issuing your building permit. No building permit will be issued until this verification is received.

1. I personally plan to provide the major labor and materials for construction of the proposed Improvement (yes or no)_____
2. I (have/have not) _____signed an application for A building permit for the proposed work.
3. I have contracted with the following person (firm) to provide the proposed construction:

   Name_____Address_____

   City_____Telephone_____

   Contractors License No. _____
4. I plan to provide portions of the work, but I have hired the following person to coordinate, Supervise, and provide the major work.

   Name_____Address_____

   City_____Telephone_____

   Contractors License No._____
5. I will provide some of the work but I have contracted (hired) the following to provide the Work indicated:

Name	Address	Phone	Type of work

Signed J. Manuel Chavez

Job Address 2935 AZEVEDO DR. SACRAMENTO, CA. 95833

Permit No: 0010910