

**CITY OF SACRAMENTO**  
1231 I Street, Sacramento, CA 95814

**Permit No: 0011257**  
**Insp Area: 4**

**Site Address: 19 ROCK HILL CT SAC**  
Parcel No: 225-0683-006

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

CONTRACTOR

OWNER  
DIAZ JOSE L/GLORIA  
19 ROCK HILL CT  
SACRAMENTO CA 95833

ARCHITECT

**Nature of Work: REROOF, TEAR OFF, INSTALL LIGHT WEIGHT CONCRETE 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 \_\_\_\_\_ 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);

\_\_\_\_\_, 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 )

7/10 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 10-5-2000 Owner Signature Jose L. Diaz

**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 10-5-2000 Applicant/Agent Signature Jose L. Diaz

**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 EYEAP 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 10-5-2000 Applicant Signature Jose L. Diaz

**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.**

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
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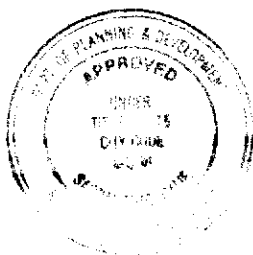
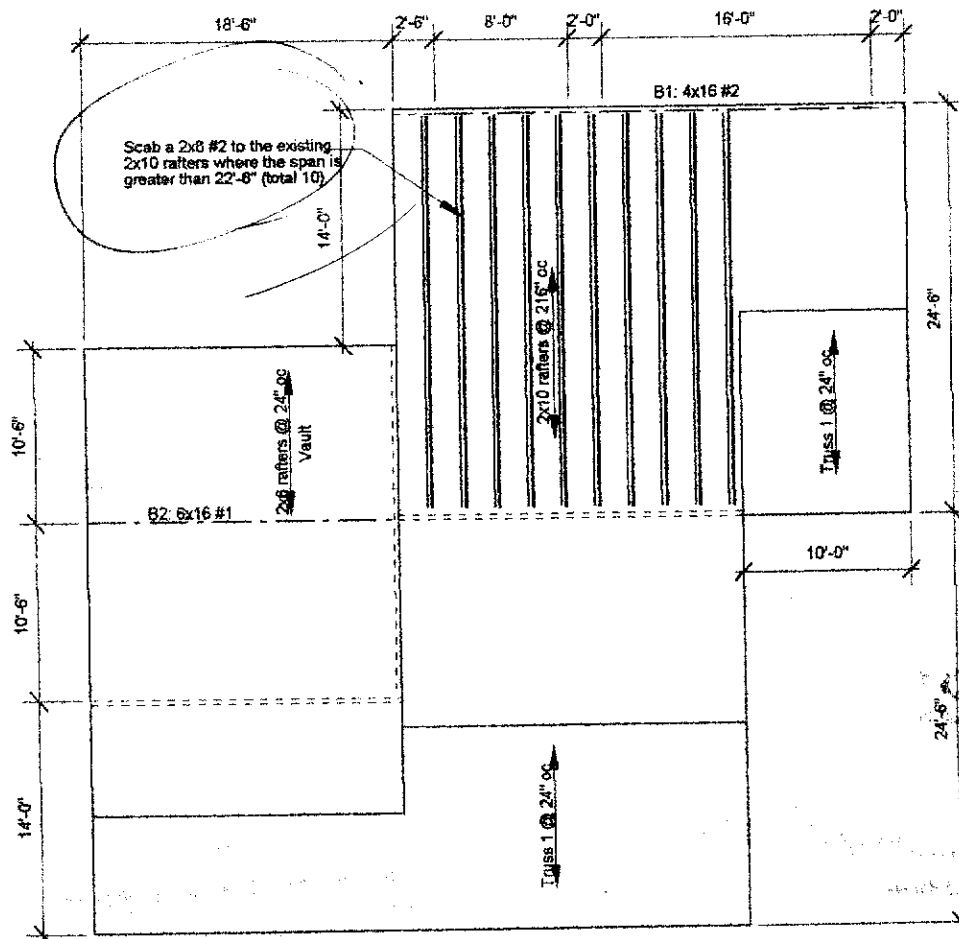
Signed Tose Pro Diaz \_\_\_\_\_

Job Address 19 Rock Hill Ct \_\_\_\_\_

Permit No: 001257 \_\_\_\_\_

ADDRESS: 19 ROCK HILL CT.

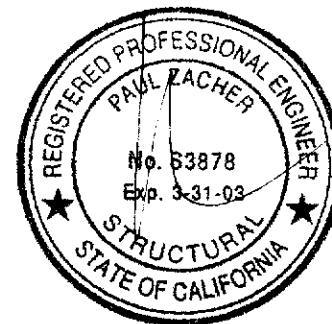
PERMIT # 001125712



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or additions from the same without written permission from the Building Inspection Division.

The approval of this plan and specification

REVIEWED BY:  
*[Signature]*  
10/5/00



**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 structural wood members that were observed appear to be in sound condition and without structural defect.

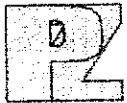
1

ROOF PLAN - DIAZ

Not to Scale



Diaz



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

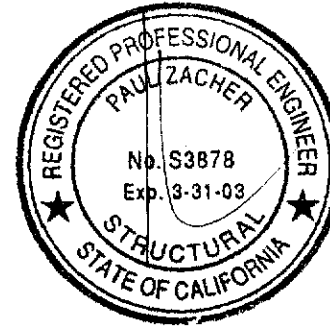
TEL: 916.961.3960  
FAX: 916.961.6552

October 2, 2000

Mr. Diaz  
19 Rock Hill Court  
Sacramento, CA 95833  
TEL: (916) 925-0670

Attn.: Mr. Diaz,

re: Job 2000\_326: DIAZ



Subject: Structural Investigation Report of the Roof for the Residence located at 5128 Sanicle Way, Sacramento, CA 95831.

As requested by Mr. Diaz, 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 29, 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.

**DESCRIPTION:**

Type of Facility: Residence.  
Year Built: Estimated 1970's vintage.  
Occupancy: Residential.  
No. of Stories: Two.  
Dimensions: Approximately 2500 square feet with a first story plate height of 8 feet.

**CONSTRUCTION:**

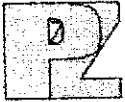
Roof:  
The roof covering will consist of a Light Weight Concrete Tile over 1/2" solid sheathing. The living area is framed with pre-engineered wood spaced at 24" on center except for the vaulted ceiling areas. The vaulted ceiling is constructed of 2x6 rafters spaced at 24" on center supported mid-span by a 6x beam. The garage area is framed with 2x10 rafters spaced at 16" on center.

**CONCLUSIONS:**

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

PERMISSION TO REPRODUCE THIS REPORT IS GRANTED BY THE AUTHOR FOR NON-COMMERCIAL USE ONLY. ALL RIGHTS RESERVED.

Diaz



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.

Garage:

1. Scab a 2x8 rafter to the existing 2x10 rafters with 16d's @ 12" on center where the span is greater than 22'-6". 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**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Tile	7.00	psf
Roofing felt	0.30	psf
1x4 skip sht'g	1.09	psf
1/2" OSB/ plywood	1.50	psf
2x10 rafters @ 16" oc	<u>2.54</u>	psf
Load	12.4	psf
Roof Pitch Adjustment	<u>0.67</u>	psf
Total Load	13.1	psf

**LOCATION: VAULT**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Tile	7.00	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	<u>2.50</u>	psf
Load	13.9	psf
Roof Pitch Adjustment	<u>0.75</u>	psf
Total Load	14.6	psf

**LOCATION: TOP CHORD**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Tile	7.00	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
Load	10.5	psf
Roof Pitch Adjustment	<u>0.57</u>	psf
Total Load	11.1	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 #: 00-326

Date: 10/2/00

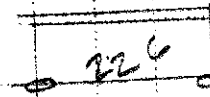
LOADING

RAFTER

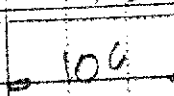
Op: 15.1 PSF x 4/3 = 17.5 PSF 2x10<sup>#2</sup>

Lp: 16.0 " " " 21.3 "

17.5/21.3



29.2/32

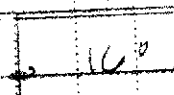


VAULT

Op: 14.6 PSF x 2.0 = 29.2 PSF 2x6<sup>#2</sup>

Lp: 16.0 " " " 32 "

16.0/32

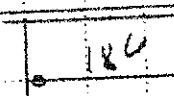


B2

Op: 15.1 PSF x 12.3 = 160 PSF 4x6<sup>#</sup>

Lp: 16.0 " " " 196 "

15.2/168

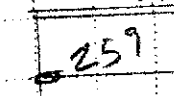


B2

Op: 14.6 PSF x 10.6 = 152 PSF 6x16<sup>#1</sup>

Lp: 16.0 " " " 168 "

17.5/21.3



RAFTER

Op: 15.1 PSF x 4/3 = 17.5 PSF 2x10<sup>#2</sup> +

Lp: 16.0 " " " 21.3 " 2x8<sup>#2</sup>

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

Title :  
 Dsgnr:  
 Description :

Job #  
 Date: 10:46AM, 2 OCT 00

Scope :

Rev: 510304  
 User: KW-D602844, 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

Timber Section		rafter	vault	B1	B2	rafter
Beam Width	in	2x10	2x6	4x16	6x16	2x8 + 2x10
Beam Depth	in	1.500	1.500	3.500	5.500	2.310
Le: Unbraced Length	ft	9.250	5.500	15.250	15.500	9.250
Timber Grade		0.00	0.00	0.00	0.00	0.00
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	Sawn	Sawn
Repetitive Status		Repetitive	Repetitive	No	No	No

**Center Span Data**

Span	ft	22.50	10.50	16.00	18.50	25.75
Dead Load	#/ft	17.50	29.20	160.00	152.00	17.50
Live Load	#/ft	21.30	32.00	196.00	168.00	21.30

**Results** Ratio = 0.9955 0.8185 0.9213 0.4548 0.9737

Mmax @ Center	in-k	29.46	10.12	136.70	164.28	38.59
@ X =	ft	11.25	5.25	8.00	9.25	12.87
f <sub>b</sub> : Actual	psi	1,377.4	1,338.3	1,007.7	745.9	1,171.5
F <sub>b</sub> : Allowable	psi	1,383.6	1,635.2	1,093.8	1,640.2	1,203.1
		Bending OK	Bending OK	Bending OK	Bending OK	Bending OK
f <sub>v</sub> : Actual	psi	44.2	53.7	67.9	45.0	33.1
F <sub>v</sub> : Allowable	psi	118.8	118.8	118.8	106.3	118.8
		Shear OK	Shear OK	Shear OK	Shear OK	Shear OK

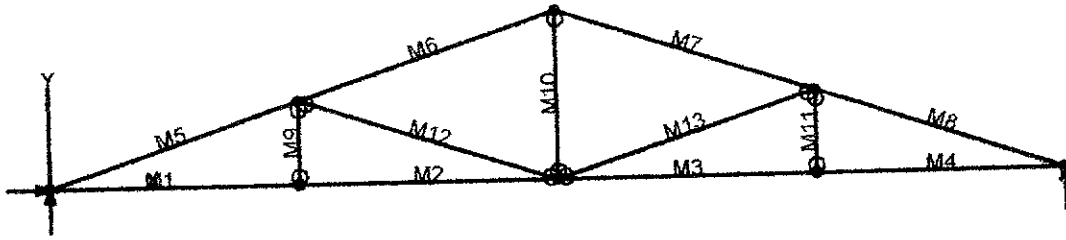
**Reactions**

@ Left End	DL	lbs	196.87	153.30	1,280.00	1,406.00	225.31
	LL	lbs	239.62	168.00	1,568.00	1,554.00	274.24
	Max. DL+LL	lbs	436.50	321.30	2,848.00	2,960.00	499.55
@ Right End	DL	lbs	196.87	153.30	1,280.00	1,406.00	225.31
	LL	lbs	239.62	168.00	1,568.00	1,554.00	274.24
	Max. DL+LL	lbs	436.50	321.30	2,848.00	2,960.00	499.55

**Deflections**

		Ratio OK	Deflection OK	Deflection OK	Deflection OK	Deflection OK
Center DL Defl	in	-0.636	-0.240	-0.143	-0.147	-0.710
L/Defl Ratio		423.5	525.0	1,346.9	1,513.4	435.1
Center LL Defl	in	-0.776	-0.263	-0.175	-0.162	-0.864
L/Defl Ratio		348.0	479.1	1,099.5	1,369.2	357.5
Center Total Defl	in	-1.413	-0.503	-0.317	-0.309	-1.574
Location	ft	11.250	5.250	8.000	9.250	12.875
L/Defl Ratio		191.0	250.5	605.4	718.9	196.3





# VisualAnalysis 3.50.c Report

10/02/00 10:54:37

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	6.00	0.00	No	No	"
N3	12.25	0.00	"	"	"
N4	18.50	0.00	"	"	"
N5	24.50	0.00	"	Yes	"
N6	6.00	2.00	"	No	"
N7	18.50	2.00	"	"	"
N8	12.25	4.08	"	"	"

## Member Elements

Member	Section	Material	Length ft
M1	SS2x4	Wood	6.00
M2	"	"	6.25
M3	"	"	6.25
M4	"	"	6.00
M5	"	"	6.32
M6	"	"	6.59
M7	"	"	6.59
M8	"	"	6.32
M9	"	"	2.00
M10	"	"	4.08
M11	"	"	2.00
M12	"	"	6.56
M13	"	"	6.56

## Section Properties

Category	Section	Ax in <sup>2</sup>	Iz in <sup>4</sup>	Sy+ in <sup>3</sup>	Sy- in <sup>3</sup>
Wood Sha	SS2x4	5.25	5.36	3.06	3.06

## Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft <sup>3</sup>
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	805.16	-NA-
N5	"	-NA-	805.16	-NA-

## Member Results

Member	Axial lbs	Vy lbs	Mz lb-ft	Dy in
M1	1914.28	-40.26	-14.18	-0.1781
"	1914.28	-23.06	49.0618	-0.1611
"	1914.28	-5.8634	77.9886	-0.1090
"	<b>1914.28</b>	11.3366	72.6013	-0.0000
M2	1914.28	-29.51	-30.66	-0.1886
"	1914.28	-11.59	12.0691	-0.1940
"	1914.28	6.3219	17.5616	-0.1920
"	1914.28	24.2386	-14.18	-0.1781
M3	1914.28	-24.24	-14.18	-0.1781
"	1914.28	-6.3219	17.5616	-0.1920
"	1914.28	11.5947	12.0691	-0.1940
"	1914.28	29.5114	-30.66	-0.1886
M4	1914.28	-11.34	72.6013	-0.0000
"	1914.28	5.8634	77.9886	-0.1090
"	1914.28	23.0634	49.0618	-0.1611
"	1914.28	40.2634	-14.18	-0.1781
M5	<b>-2067.07</b>	147.74	-72.60	-0.0000
"	-2030.94	39.3377	<b>124.02</b>	-0.1405
"	-1994.80	-69.06	92.6896	-0.1924
"	-1958.67	<b>-177.46</b>	-166.60	-0.1819
M6	-1386.86	165.22	-166.60	-0.1819
"	-1349.29	52.3052	71.5907	<b>-0.2276</b>
"	-1311.71	-60.61	62.4718	-0.2264
"	-1274.13	-173.53	<b>-193.96</b>	-0.1864
M7	-1386.86	-165.22	-166.60	-0.1619
"	-1349.29	-52.31	71.5907	-0.2077
"	-1311.71	60.6115	62.4718	-0.2064
"	-1274.13	173.53	-193.96	-0.1665
M8	-2067.07	-147.74	-72.60	0.0199
"	-2030.94	-39.34	124.02	-0.1206
"	-1994.80	69.0623	92.6896	-0.1725
"	-1958.67	<b>177.46</b>	-166.60	-0.1619
M9	64.5020	-0.0000	-0.0000	0.0154
"	64.5020	-0.0000	-0.0000	0.0241
"	64.5020	-0.0000	-0.0000	0.0327
"	64.5020	-0.0000	0.0000	0.0413
M10	475.37	-0.0000	0.0000	0.0315
"	475.37	-0.0000	-0.0000	0.0315
"	475.37	-0.0000	-0.0000	0.0315
"	475.37	-0.0000	-0.0000	0.0315
M11	64.5020	0.0000	0.0000	0.0218
"	64.5020	0.0000	0.0000	0.0304
"	64.5020	0.0000	0.0000	0.0390
"	64.5020	0.0000	0.0000	<b>0.0476</b>

M12	-683.04	0.0000	0.0000	-0.1700
"	-683.04	0.0000	0.0000	-0.1656
"	-683.04	0.0000	0.0000	-0.1613
"	-683.04	0.0000	0.0000	-0.1569
M13	-683.04	-0.0000	0.0000	-0.1892
"	-683.04	-0.0000	-0.0000	-0.1849
"	-683.04	-0.0000	-0.0000	-0.1805
"	-683.04	-0.0000	-0.0000	-0.1761

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### BENDING & COMP: TRUSS 1 - 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	6.32 feet
Max Axial Comp, C	1958 lbs
Max Reaction, R	177 lbs
Max Moment, M	166 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 =	1.17
fc =	373 psi
Fce=	1275 psi
Fc*=	2084 psi
F'c=	1057 psi
fb=	650 psi
F*b=Fb*=	2156 psi
Shear D/C ratio	0.43 < 1.0, Member OK
Interaction equation: (fc/F'c)^2 +	
fb/ (F*b(1-fc/Fce)) =	0.55 < 1.0, Member OK
Live Load defl ratio	0.25 < 1.0, Member OK
Total Load defl ratio	0.43 < 1.0, Member OK