

CITY OF SACRAMENTO

Permit No: 9811325

1231 I Street, Sacramento, CA 95814

Insp Area: 4

Site Address: 1525 PEBBLEWOOD DR SAC

Sub-Type: RES

Parcel No: 2250463002

Housing (Y/N): N

CONTRACTOR

BRAZIL QUALITY ROOFING INC
POB7703
CITRUS HEIGHTS CA 95621

OWNER

WILEY MICHAEL R & SHERI A
1525 PEBBLEWOOD DR
SACRAMENTO CA 95833

ARCHITECT

Nature of Work: REROOF 19 SQR W/LIGHT WEIGHT TILE PER ENGINEER REPORT

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 747346 Date 11-13-98 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

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 11-13-98 Applicant/Agent Signature [Signature]

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

X 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 1497605-98 Exp Date 08/30/1999

(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 11-13-98 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.

Wiley

CITY

**Paul Zacher-Structural Engineers**

4701 Lakeside Way  
Fair Oaks, CA 95628

TEL: 916.961.3960  
FAX: 916.961.3960  
e-mail: pzacher@softcom.net

September 17, 1998

Brazil Roofing  
P.O. Box 7703  
Citrus Heights, CA 95621  
TEL: 916.725.5882  
FAX: 916.725.5882

Attn.: Mr. Mike Brazil,

re: Job 98218: WILEY

Subject: Structural Investigation Report of the Roof for the Residence located at 1525  
Pebblewood Drive, Sacramento, CA

As requested by Mr. Mike Brazil, 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 17, 1998. The investigation was made to determine the existing condition of the structure. All information, data and analysis contained within this report is based on the 1994 Uniform Building Code.

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

DESCRIPTION:

Type of Facility: Residence.  
Year Built: Estimated 1980's vintage.  
Occupancy: Residential.  
No. of Stories: Two.  
Dimensions: Approximately 2400 square feet with a first story plate height of 8 feet.

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 over the vaulted ceiling areas. The vaulted ceiling is constructed of 2x10 rafters spaced at 16" on center. The garage area is framed with pre-engineered wood trusses spaced at 24" on center.

1 / 14 ..

Wiley

CONCLUSIONS:

Roof:

The living and garage areas have sufficient structural capacity for the applied live and dead loads.

RECOMMENDATIONS:

None.

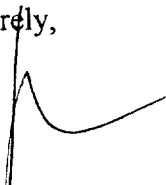
It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls which are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and 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 which 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>	
Monier Split Shake of Slate Flat		10.30	psf
Roofing felt		0.30	psf
1x4 skip sht'g		1.09	psf
1/2" OSB/ plywood		1.50	psf
2x6 rafters @ 24" oc		<u>1.00</u>	psf
	Load	14.2	psf
	Roof Pitch Adjustment	<u>0.77</u>	psf
	Total Load	15.0	psf

**LOCATION: VAULT**

<u>MATERIAL</u>		<u>WEIGHT</u>	
Monier Split Shake of Slate Flat		10.30	psf
Roofing felt		0.30	psf
1/2" OSB/ plywood		1.50	psf
1x4 skip sht'g		1.09	psf
2x8 rafters @ 24" oc		1.32	psf
Batt/blown insul		0.50	psf
1/2" Gypboard		<u>2.50</u>	psf
	Load	17.5	psf
	Roof Pitch Adjustment	<u>0.95</u>	psf
	Total Load	18.5	psf

**LOCATION: TOP CHORD**

<u>MATERIAL</u>		<u>WEIGHT</u>	
Monier Split Shake of Slate Flat		10.30	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>1.28</u>	psf
	Load	14.5	psf
	Roof Pitch Adjustment	<u>0.78</u>	psf
	Total Load	15.3	psf

**LOCATION: BOTTOM CHORD**

<u>MATERIAL</u>		<u>WEIGHT</u>	
Batt/blown insul		0.50	psf
2x4 truss @ 24" oc		0.64	psf
1/2" Gypboard		<u>2.50</u>	psf
	Load	3.6	psf

Title :  
 Dsgnr:  
 Description :

Job #  
 Date:

Scope :

Rev. 510001

**Timber Beam & Joist**

Page 1

**Description** RAFTERS AND BEAMS

**Timber Member Information**

		2x10 vault	4x10
Timber Section		2x10	4x10
Beam Width	in	1.500	3.500
Beam Depth	in	9.250	9.250
Le: Unbraced Length	ft	0.00	2.00
Timber Grade		Douglas Fir - Larch	Douglas Fir - Larch
Fb - Basic Allow	psi	875.0	875.0
Fv - Basic Allow	psi	95.0	95.0
Elastic Modulus	ksi	1,600.0	1,600.0
Load Duration Factor		1.250	1.250
Member Type		Sawn	Sawn
Repetitive Status		Repetitive	No

**Center Span Data**

		ft	
Span	ft	19.00	8.50
Dead Load	#/ft	24.70	264.00
Live Load	#/ft	21.30	228.00

**Results**

Ratio = 0.8416 0.8176

Mmax @ Center	in-k	24.91	53.32
@ X =	ft	9.50	4.25
fb : Actual	psi	1,164.5	1,068.3
Fb : Allowable	psi	1,383.6	1,306.6
		Bending OK	Bending OK
fv : Actual	psi	43.5	79.8
Fv : Allowable	psi	118.8	118.8
		Shear OK	Shear OK

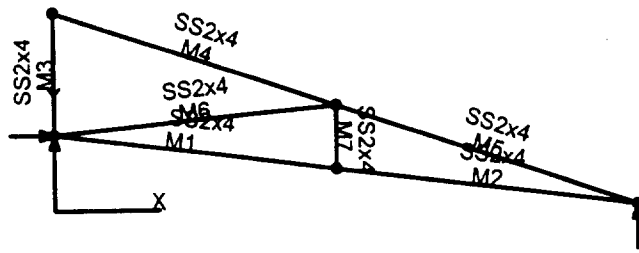
**Reactions**

@ Left End	DL	lbs	234.65	1,122.00
	LL	lbs	202.35	969.00
	Max. DL+LL	lbs	437.00	2,091.00
@ Right End	DL	lbs	234.65	1,122.00
	LL	lbs	202.35	969.00
	Max. DL+LL	lbs	437.00	2,091.00

**Deflections**

Center DL Defl	in	-0.458	-0.084
L/Defl Ratio		498.3	1,215.0
Center LL Defl	in	-0.395	-0.073
L/Defl Ratio		577.9	1,406.9
Center Total Defl	in	-0.852	-0.156
Location	ft	9.500	4.250
L/Defl Ratio		267.6	652.0

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# VisualAnalysis 3.12.c Report

September 17, 1998 3:01 PM

Project:

File: D:\Paul\d\_and\_d\aafolder\truss1.VAP

Engineer: Paul Zacher

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

## Nodes

Node	X ft	Y ft	Fix	DX Fix	DY Fix	RZ Fix
N1	0.00	1.83	Yes	Yes	No	
N2	7.00	0.95	No	No		
N3	14.50	0.00	"	Yes		
N4	0.00	4.83	"	No		
N5	7.00	2.50	"	"		

## Spring Elements

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

## Member Elements

Member	Section	Material	Length ft	Weight lbs	Theta deg
M1	SS2x4	Wood	7.06	10.41	0.00
M2	"	"	7.56	11.15	0.00
M3	"	"	3.00	4.43	0.00
M4	"	"	7.38	10.88	0.00
M5	"	"	7.91	11.66	0.00
M6	"	"	7.03	10.37	0.00
M7	"	"	1.55	2.29	0.00

## 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 ksi	Elasticity ksi	Poisson	Density lb/ft <sup>3</sup>	Therm. /F
Wood	-NA-	1700.00	0.36	40.47	0.00

## Plate Elements

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

# VisualAnalysis 3.12.c Report

September 17, 1998 3:01 PM

## Project:

File: D:\Paul\d\_and\_d\aafolder\truss1.VAP

Engineer: Paul Zacher

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

## Load Cases

Load Case	Strength	Service	Results
( 1)Service Case 1	Yes	Yes	1st Ord
( 2)Service Case 2	"	"	"
( 3)Equation Case 1	"	"	"

## Service Load Cases

Load Case	Load Source	Self Weight	Loads
Service Case 1	Dead loads	None	
Service Case 2	Roof Live 1	"	

## Load Combination Summary

Equation Case: Equation Case 1

Combination: +1D+1L+1Lr+1R+1W+1S+1E+1H+1F+1TS+1T+1TC+1I+1U+1LE

### Contributing Cases & Source

Service Case 1 (Dead loads)

Service Case 2 (Roof Live loads)

## Equation Case Combinations

Load Case	Cases	Equation
Equation Case 1	0.00	0.00

## Factored Case Combinations

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

## Nodal Loads

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

## Member Point Loads

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

## Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Off ft	Magnitude
Service Case 1	M1	DY proj.	0.00	7.06	-0.01 K/ft
"	M2	"	0.00	7.56	-0.01 K/ft
"	M4	"	0.00	7.38	-0.03 K/ft
"	M5	"	0.00	7.91	-0.03 K/ft
Service Case 2	M4	"	0.00	7.38	-0.03 K/ft
"	M5	"	0.00	7.91	-0.03 K/ft

## Member Linear Loads

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



# VisualAnalysis 3.12.c Report

September 17, 1998 3:01 PM

Project:

File: D:\Paul\d\_and\_d\aaafolder\truss1.VAP

Engineer: Paul Zacher

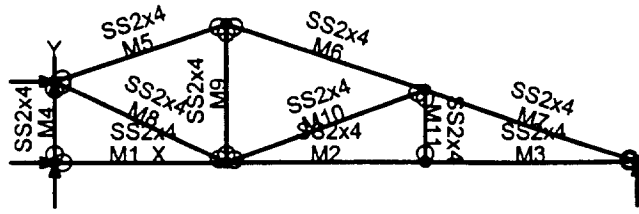
Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

## Load Cases

Load Case	Strength Service Results		
( 1)Service Case 1	Yes	Yes	1st Ord
( 2)Service Case 2	"	"	"
( 3)Equation Case 1	"	"	"

## Member Extreme Results

Member	Fx(lc) K	Fy(lc) K	Mz(lc) K-ft	fc max(lc) ksi	fc min(lc) ksi	Dx(lc) in	Dy(lc) in
M1	0.61( 2)	-0.02( 1)	-0.06( 3)	0.12( 2)	-0.03( 1)	0.00( 2)	-0.13( 3)
"	1.34( 3)	0.04( 3)	0.03( 3)	0.50( 3)	0.25( 3)	0.01( 3)	0.00( 2)
M2	0.66( 2)	-0.01( 1)	-0.07( 3)	0.14( 2)	-0.24( 3)	0.01( 2)	-0.17( 3)
"	<b>1.46( 3)</b>	0.05( 3)	0.13( 3)	0.80( 3)	<b>0.27( 3)</b>	0.03( 3)	0.00( 3)
M3	-0.18( 3)	-0.10( 3)	-0.20( 3)	-0.01( 3)	-0.81( 3)	0.00( 3)	-0.05( 3)
"	-0.09( 1)	-0.05( 2)	0.09( 3)	0.74( 3)	-0.03( 2)	0.00( 2)	0.00( 2)
M4	-0.17( 3)	<b>-0.22( 3)</b>	-0.26( 3)	-0.01( 1)	-1.06( 3)	0.02( 2)	-0.17( 3)
"	-0.01( 2)	0.20( 3)	0.15( 3)	<b>1.00( 3)</b>	-0.01( 2)	0.04( 3)	<b>0.01( 3)</b>
M5	<b>-1.59( 3)</b>	-0.20( 3)	<b>-0.32( 3)</b>	<b>-0.27( 3)</b>	<b>-1.54( 3)</b>	0.01( 2)	<b>-0.26( 3)</b>
"	-0.65( 2)	<b>0.25( 3)</b>	<b>0.22( 3)</b>	0.99( 3)	-0.13( 2)	0.04( 3)	0.01( 3)
M6	-1.24( 3)	0.00( 1)	-0.03( 3)	-0.23( 3)	-0.38( 3)	<b>-0.01( 3)</b>	-0.13( 3)
"	-0.56( 2)	0.01( 3)	0.04( 3)	-0.03( 2)	-0.11( 2)	0.00( 2)	0.00( 2)
M7	0.01( 2)	-0.12( 3)	-0.08( 3)	0.02( 2)	-0.37( 3)	0.06( 2)	0.00( 3)
"	0.09( 3)	-0.05( 2)	0.10( 3)	0.40( 3)	0.00( 1)	<b>0.13( 3)</b>	0.00( 3)



# VisualAnalysis 3.12.c Report

September 17, 1998 3:10 PM

## Project:

File: D:\Paul\d\_and\_d\aafolder\truss2.VAP

Engineer: Paul Zacher

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

## Nodes

Node	X ft	Y ft	Fix	DX Fix	DY Fix	RZ Fix
N1	0.00	0.00	Yes	Yes	No	No
N2	6.00	0.00	No	No	No	"
N3	13.00	0.00	"	"	"	"
N4	20.50	0.00	"	Yes	"	"
N5	0.00	2.83	Yes	"	"	"
N6	6.00	4.83	No	No	"	"
N7	13.00	2.50	"	"	"	"

## Spring Elements

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

## Member Elements

Member	Section	Material	Length ft	Weight lbs	Theta deg
M1	SS2x4	Wood	6.00	8.85	0.00
M2	"	"	7.00	10.33	0.00
M3	"	"	7.50	11.07	0.00
M4	"	"	2.83	4.18	0.00
M5	"	"	6.32	9.33	0.00
M6	"	"	7.38	10.88	0.00
M7	"	"	7.91	11.66	0.00
M8	"	"	6.63	9.79	0.00
M9	"	"	4.83	7.13	0.00
M10	"	"	7.43	10.97	0.00
M11	"	"	2.50	3.69	0.00

## 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 ksi	Elasticity ksi	Poisson	Density lb/ft <sup>3</sup>	Therm. /F
Wood	-NA-	1700.00	0.36	40.47	0.00

## Plate Elements

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

# VisualAnalysis 3.12.c Report

September 17, 1998 3:10 PM

## Project:

File: D:\Paul\d\_and\_d\aafolder\truss2.VAP

Engineer: Paul Zacher

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

## Load Cases

Load Case	Strength	Service	Results
( 1)Service Case 1	Yes	Yes	1st Ord
( 2)Service Case 2	"	"	"
( 3)Equation Case 1	"	"	"

## Service Load Cases

Load Case	Load Source	Self Weight	Loads
Service Case 1	Dead loads	None	
Service Case 2	Roof Live 1	"	

## Load Combination Summary

Equation Case: Equation Case 1

Combination: +1D+1L+1Lr+1R+1W+1S+1E+1H+1F+1TS+1T+1TC+1I+1U+1LE

### Contributing Cases & Source

Service Case 1 (Dead loads)

Service Case 2 (Roof Live loads)

## Equation Case Combinations

Load Case	Cases	Equation
Equation Case 1	0.00	0.00

## Factored Case Combinations

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

## Nodal Loads

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

## Member Point Loads

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

## Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Off ft	Magnitude
Service Case 1	M1	DY proj.	0.00	6.00	-0.01 K/ft
"	M2	"	0.00	7.00	-0.01 K/ft
"	M3	"	0.00	7.50	-0.01 K/ft
"	M5	"	0.00	6.32	-0.03 K/ft
"	M6	"	0.00	7.38	-0.03 K/ft
"	M7	"	0.00	7.91	-0.03 K/ft
Service Case 2	M5	"	0.00	6.32	-0.03 K/ft
"	M6	"	0.00	7.38	-0.03 K/ft
"	M7	"	0.00	7.91	-0.03 K/ft

# VisualAnalysis 3.12.c Report

September 17, 1998 3:10 PM

**Project:**

File: D:\Paul\d\_and\_d\aafolder\truss2.VAP

Engineer: Paul Zacher

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

## Load Cases

Load Case	Strength Service Results		
( 1)Service Case 1	Yes	Yes	1st Ord
( 2)Service Case 2	"	"	"
( 3)Equation Case 1	"	"	"

## Member Extreme Results

Member	Fx(1c) K	Fy(1c) K	Mz(1c) K-ft	fc max(1c) ksi	fc min(1c) ksi	Dx(1c) in	Dy(1c) in
M1	-1.01( 3)	-0.03( 3)	-0.03( 3)	-0.19( 3)	-0.32( 3)	-0.01( 3)	-0.05( 3)
"	-0.46( 2)	0.02( 1)	0.02( 1)	0.02( 1)	-0.09( 2)	0.00( 2)	0.00( 2)
M2	0.51( 2)	-0.03( 1)	-0.03( 3)	0.10( 2)	-0.01( 1)	-0.01( 3)	-0.09( 3)
"	1.12( 3)	0.03( 3)	0.02( 3)	0.34( 3)	0.21( 3)	0.00( 3)	-0.02( 2)
M3	0.51( 2)	-0.03( 3)	-0.03( 1)	0.10( 2)	-0.04( 1)	0.00( 2)	-0.10( 3)
"	1.12( 3)	0.03( 1)	0.04( 3)	0.38( 3)	0.21( 3)	0.01( 3)	0.00( 2)
M4	0.00( 3)	0.00( 2)	0.00( 1)	0.00( 3)	0.00( 3)	0.00( 3)	0.00( 3)
"	0.00( 2)	0.00( 3)	0.00( 3)	0.00( 2)	0.00( 2)	0.00( 2)	0.00( 3)
M5	-0.29( 3)	-0.18( 3)	0.00( 2)	-0.06( 3)	-1.15( 3)	0.00( 3)	-0.25( 3)
"	-0.07( 2)	0.18( 3)	<b>0.28( 3)</b>	1.06( 3)	-0.01( 2)	0.00( 3)	0.00( 2)
M6	-0.32( 3)	<b>-0.26( 3)</b>	<b>-0.39( 3)</b>	-0.04( 3)	-1.61( 3)	0.01( 2)	-0.22( 3)
"	-0.08( 2)	0.15( 3)	0.21( 3)	<b>1.49( 3)</b>	-0.01( 2)	0.03( 3)	-0.02( 2)
M7	<b>-1.24( 3)</b>	-0.17( 3)	-0.39( 3)	<b>-0.24( 3)</b>	<b>-1.75( 3)</b>	0.01( 2)	<b>-0.29( 3)</b>
"	-0.49( 2)	<b>0.27( 3)</b>	0.26( 3)	1.34( 3)	-0.11( 2)	0.03( 3)	0.00( 3)
M8	0.62( 2)	0.00( 2)	0.00( 1)	0.12( 2)	0.12( 2)	0.00( 2)	-0.04( 3)
"	<b>1.36( 3)</b>	0.00( 3)	0.00( 3)	0.26( 3)	<b>0.26( 3)</b>	0.01( 3)	0.00( 2)
M9	-0.20( 3)	0.00( 3)	0.00( 3)	-0.04( 3)	-0.04( 3)	<b>-0.05( 3)</b>	-0.01( 3)
"	-0.09( 1)	0.00( 2)	0.00( 1)	-0.02( 1)	-0.02( 1)	-0.02( 2)	<b>0.01( 3)</b>
M10	-0.95( 3)	0.00( 2)	0.00( 1)	-0.18( 3)	-0.18( 3)	-0.03( 3)	-0.08( 3)
"	-0.44( 2)	0.00( 3)	0.00( 3)	-0.08( 2)	-0.08( 2)	-0.01( 2)	-0.02( 2)
M11	0.00( 2)	0.00( 3)	0.00( 3)	0.00( 2)	0.00( 2)	0.04( 2)	0.00( 3)
"	0.06( 1)	0.00( 1)	0.00( 1)	0.01( 1)	0.01( 1)	<b>0.09( 3)</b>	0.00( 3)

Buckling Factor, CT is  
 negelected due to small contribution

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<b>BENDING &amp; COMP: TRUSS 1; MEMBER 5</b>	
<u>Grading:</u>	
2x or 4x	Doug-fir larch: No. 2
<u>Assumptions:</u>	
Lateral support at points of bearing	
SPS or gypboard attached to compression face	
Maximum center-center spacing = 24"	
Width, b	1.5 inches
Depth, d	3.5 inches
Length	7.91 feet
Max Axial Comp, C	1590 lbs
Max Reaction, R	200 lbs
Max Moment, M	320 ft-lbs
Max LL Deflection	0.16 inches
Max TL Deflection	0.26 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
fc =	303 psi
Fce=	1020 psi
Fc*=	1094 psi
F'c=	729 psi
fb=	104 psi
F'b=	1258 psi
Shear D/C ratio	0.48 < 1.0, Member OK
Interaction equation:	
$(fc/F'c)^2 +$	
fb/ (F'b(1-fc/Fce)) =	0.29 < 1.0, Member OK
Live Load defl ratio	0.40 < 1.0, Member OK
Total Load defl ratio	0.49 < 1.0, Member OK

<b>BENDING &amp; COMP: TRUSS 2; MEMBER 7</b>	
<u>Grading:</u>	
2x or 4x	Doug-fir larch: No. 2
<u>Assumptions:</u>	
Lateral support at points of bearing	
SPS or gypboard attached to compression face	
Maximum center-center spacing = 24"	
Width, b	1.5 inches
Depth, d	3.5 inches
Length	7.91 feet
Max Axial Comp, C	1240 lbs
Max Reaction, R	170 lbs
Max Moment, M	390 ft-lbs
Max LL Deflection	0.18 inches
Max TL Deflection	0.29 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
fc =	236 psi
Fce=	1020 psi
Fc*=	1094 psi
F'c=	729 psi
fb=	127 psi
F'b=	1258 psi
Shear D/C ratio	0.41 < 1.0, Member OK
Interaction equation:	
$(fc/F'c)^2 +$	
fb/ (F'b(1-fc/Fce)) =	0.24 < 1.0, Member OK
Live Load defl ratio	0.46 < 1.0, Member OK
Total Load defl ratio	0.55 < 1.0, Member OK