

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0111094
Insp Area: 2
Thos Bros: 337B4

Site Address: 7733 EL DOURO DR SAC
Parcel No: 031-1260-021

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

CONTRACTOR
ZIMMERMAN ROOFING, INC
3675 R STREET
SACRAMENTO, CA 95816

OWNER
COUPAL JONATHAN M/CATHERINE
7733 EL DOURO DR
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: 34 SQ T/O SHAKE REROOF W PIONEER 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 C-39 License Number 557559 Date 9/12/01 Contractor Signature Kelly 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 hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 9/12/01 Applicant/Agent Signature Kelly 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 713-00-2021 Exp Date 10/01/2001

____ (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 9/12/01 Applicant Signature Kelly 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.

Coupal

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

TEL: 916.961.3960
FAX: 916.961.6552

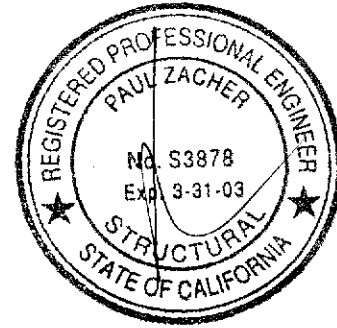
July 30, 2001

Zimmerman Roofing
3675 R Street
Sacramento, CA 95816
TEL: 916.454.3667
FAX: 916.455.3784

Attn.: Mr. Jeff Tucker,

re: Job 2001_203: COUPAL

Subject: Structural Investigation Report of the Roof for the Residence located at 7733 El Douro Way, Sacramento, CA 95831.



As requested by Mr. Jeff Tucker, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site July 25, 2001. 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 1980's vintage.
Occupancy: Residential.
No. of Stories: Two.
Dimensions: Approximately 3000 square feet with a first story plate height of 8 feet.

This set of plans and specifications must be used as shown and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.

Violation of any City Ordinance or State Law.

Paul Zacher 8/28/01

CONSTRUCTION:

Roof:

The roof covering will consist of a Light Weight Concrete Tile over 1/2" solid sheathing. The living area is conventionally framed with 2x6 rafters spaced at 24" on center except for the vaulted ceiling area. One of the vaulted ceilings is constructed of 2x10 rafters spaced at 24" on center supported at the ridge by a 3-1/2" beam. The other vaulted ceiling is inaccessible and is supported at mid span by a 5-1/4" beam. The garage area is framed with 2x6 rafters spaced at 24" on center.

CONCLUSIONS:

SEE RECOMMENDATIONS

Roof:

The living and garage areas have sufficient structural capacity for the applied live and dead loads except for the vaulted ceiling areas that are inaccessible. No conclusions are drawn for the vaulted ceiling areas that are inaccessible. See "Recommendations" for location and allowable sizes of rafters for the vaulted ceiling areas.

R

RECOMMENDATIONS

Coupal



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. After the roofing material has been removed, the contractor shall verify that the framing in the inaccessible portion of the structure does not exceed the following:

Vaulted Ceiling Portion:

- a. 2x8 @ 24" oc - max span = 13'-9"
- b. 2x10 @ 24" oc - max span = 17'-3"

If the framing differs from the above, the contractor shall supply the engineer with diagrams showing the member sizes and span lengths. The engineer shall then determine if the structure can adequately support the applied dead and live loads and a supplemental report shall be issued. See detail 1.

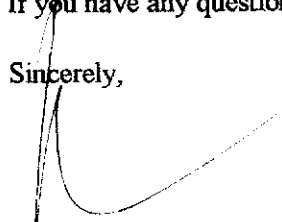
It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls that are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and 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 6 in 12
Pitch Adjustment Factor 1.12

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
2x6 rafters @ 24" oc	<u>1.00</u>	psf
Load	10.9	psf
Roof Pitch Adjustment	<u>1.29</u>	psf
Total Load	12.2	psf

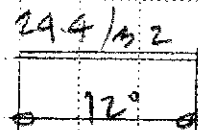
LOCATION: VAULT

<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
2x10 rafters @ 24" oc	1.69	psf
Batt/blown insul	0.50	psf
1/2" Gypboard	<u>2.50</u>	psf
Load	14.6	psf
Roof Pitch Adjustment	<u>1.72</u>	psf
Total Load	16.3	psf

LOADING

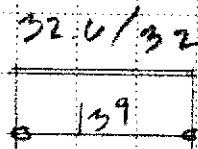
RAFTER

DR = 12.2 pLF \times 20 = 244 pLF 2 \times 6" \times 2
LR = 16.0 " " = 32



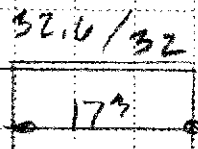
VAULT

DR = 16.3 pLF \times 20 = 326 pLF 2 \times 8" \times 2
LR = 16.0 " " = 32



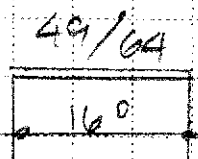
VAULT

DR = 16.3 pLF \times 20 = 326 2 \times 10" \times 2
LR = 16.0 " " = 32



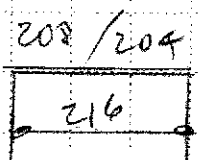
B1

DR = 12.2 pLF \times 40 = 49 pLF 4 \times 12" \times 2
LR = 16.0 " " = 64



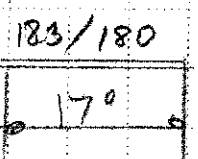
B2

DR = 16.3 pLF \times 12.9 = 208 pLF 5 1/4" \times 14 pSL
LR = 16.0 " " = 204



B3

DR = 16.3 pLF \times 11.3 = 183 pLF 3 1/2" \times 14 pSL
LR = 16.0 " " = 180



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

Title :
 Dsgnr:
 Description :

Job #
 Date: 11:18AM, 30 JUL 01

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	vault	B1	B2	B3
Timber Section	2x6	2x8	2x10	4x14	LVL:5.250x	LVL:3.500x
Beam Width	in 1.500	1.500	1.500	3.500	5.250	3.500
Beam Depth	in 5.500	7.250	9.250	13.250	14.000	14.000
Le: Unbraced Length	ft 0.00	0.00	0.00	0.00	0.00	0.00
Timber Grade	Douglas Fir - Larch, Douglas Fir - Larch, Douglas Fir - Larch, Douglas Fir - Larch, Russ Joist - MacMillan, Russ Joist - MacMillan					
Fb - Basic Allow	psi 875.0	875.0	875.0	875.0	2,600.0	2,600.0
Fv - Basic Allow	psi 95.0	95.0	95.0	95.0	285.0	285.0
Elastic Modulus	ksi 1,600.0	1,600.0	1,600.0	1,600.0	1,900.0	1,900.0
Load Duration Factor	1.250	1.250	1.250	1.250	1.250	1.250
Member Type	Sawn	Sawn	Sawn	Sawn	Manuf/Pine	Manuf/Pine
Repetitive Status	Repetitive	Repetitive	Repetitive	No	No	No

Center Span Data

Span	ft	12.00	13.75	17.25	16.00	21.50	17.00
Dead Load	#/ft	24.40	32.60	32.60	49.00	208.00	183.00
Live Load	#/ft	32.00	32.00	32.00	64.00	204.00	180.00

Results	Ratio =	0.9852	0.9237	0.9742	0.3874	0.5125	0.4235
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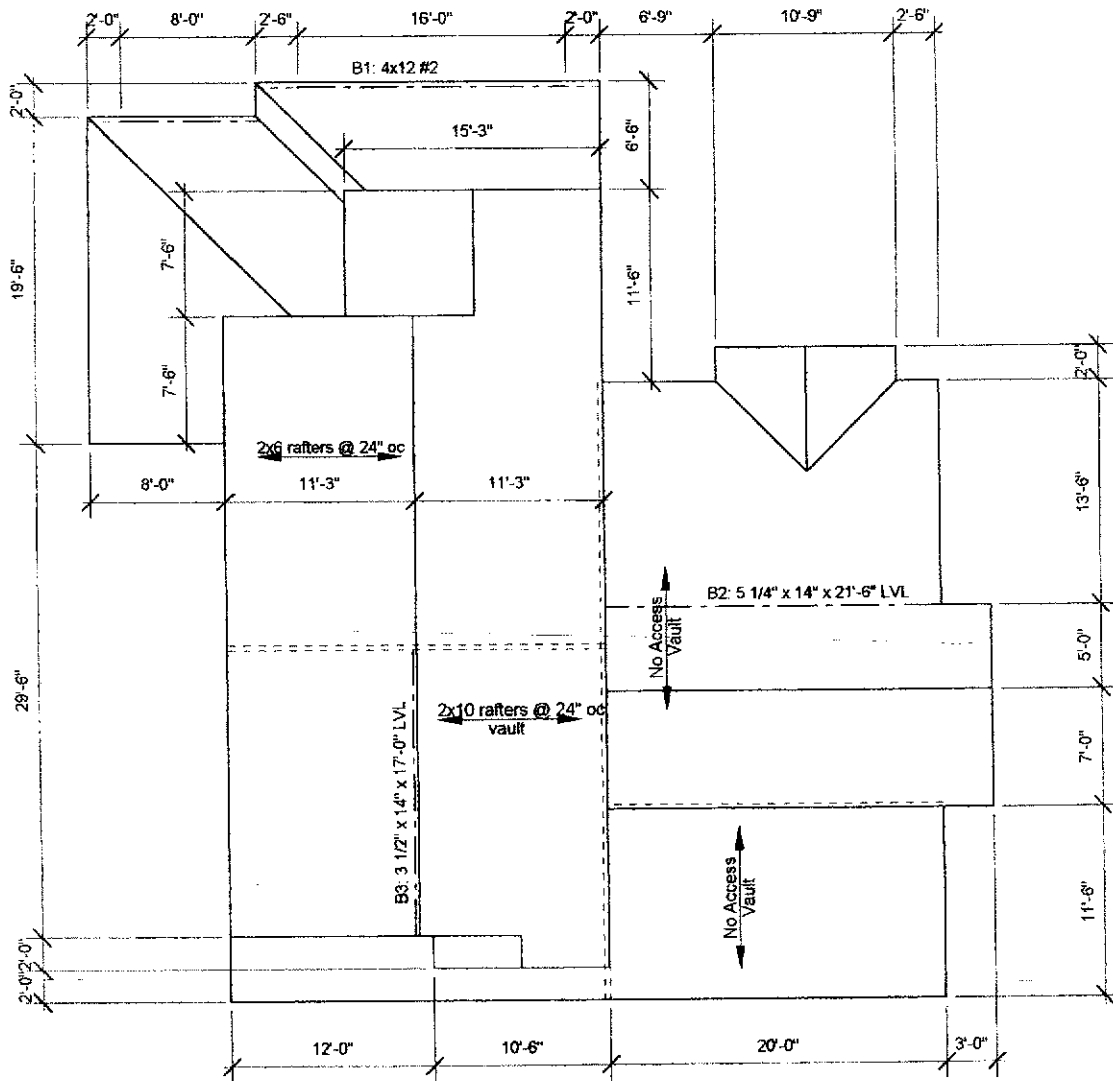
Mmax @ Center	in-k	12.18	18.32	28.83	43.39	285.67	157.36
@ X =	ft	6.00	6.87	8.62	8.00	10.75	8.50
fb : Actual	psi	1,610.9	1,394.2	1,348.0	423.7	1,665.7	1,376.3
Fb : Allowable	psi	1,635.2	1,509.4	1,383.6	1,093.8	3,250.0	3,250.0
		Bending OK	Bending OK	Bending OK	Bending OK	Bending OK	Bending OK
fv : Actual	psi	57.1	56.4	54.9	25.3	81.0	81.6
Fv : Allowable	psi	118.8	118.8	118.8	118.8	356.3	356.3
		Shear OK	Shear OK	Shear OK	Shear OK	Shear OK	Shear OK

Reactions

@ Left End	DL	lbs	146.40	224.12	281.17	392.00	2,236.00	1,555.50
	LL	lbs	192.00	220.00	276.00	512.00	2,193.00	1,530.00
	Max. DL+LL	lbs	338.40	444.12	557.17	904.00	4,429.00	3,085.50
@ Right End	DL	lbs	146.40	224.12	281.17	392.00	2,236.00	1,555.50
	LL	lbs	192.00	220.00	276.00	512.00	2,193.00	1,530.00
	Max. DL+LL	lbs	338.40	444.12	557.17	904.00	4,429.00	3,085.50

Deflections

	Ratio OK	Deflection OK	Deflection OK	Deflection OK	Deflection OK	Deflection OK	
Center DL Defl	in	-0.342	-0.344	-0.410	-0.067	-0.438	-0.226
L/Defl Ratio		420.9	479.7	504.5	2,884.8	588.5	902.1
Center LL Defl	in	-0.449	-0.338	-0.403	-0.087	-0.430	-0.222
L/Defl Ratio		320.9	488.6	514.0	2,208.6	600.0	917.1
Center Total Defl	in	-0.791	-0.682	-0.813	-0.153	-0.868	-0.449
Location	ft	6.000	6.875	8.625	8.000	10.750	8.500
L/Defl Ratio		182.1	242.1	254.6	1,250.9	297.1	454.8



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 7.0 psf.
- B. All rafters are 2x6 DF#2 and hips and valleys are 2x8 DF#2 unless otherwise noted.
- C. All existing rafter, hips, valleys, rafter ties, and purlins are braced per UBC Section 2320.1 "Roof and Ceiling Framing" unless otherwise shown.
- D. All structural wood members that were observed appear to be in sound condition and without structural defect.

1

ROOF PLAN - COUPAL

Not to Scale

6