

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 9909184
Insp Area: 2

Site Address: 42 YUBA RIVER CR SAC
Parcel No: 031-0320-021

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

CONTRACTOR
YANCEY BROS
8250 ALPINE AV #D
SACRAMENTO CA 95826

OWNER
ALLEN FRANCIS E
42 YUBA RIVER CR
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: 45SQ TEAR OFF AND REROOF WITH 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.

X License Class _____ License Number 7000 Date 5-17-99 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.

X Date 5-17-99 Applicant/Agent Signature [Signature]

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 VILLANOVA INS CO Policy Number WC2-0983698 Exp Date 11/01/1999

____ (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.

X Date _____ Applicant 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.

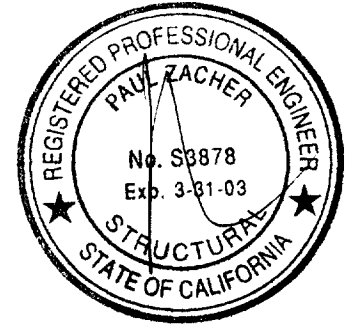
42 Yuba River Ct
990918AR

Paul Zacher - Structural Engineers
200 Lakeside Way
Sacramento, CA 95628

TEL: 916.961.3960
FAX: 916.961.3960

Date: 1000

Yancey Brothers Roofing
8250 Alpine Ave, Suite A
Sacramento, CA 95826
TEL: (916) 457-5113
FAX: (916) 457-5427



Attn: Mr. Tom Yancey

re: Job 00149 ALLEN

subject: Structural Investigation Report of the Roof for the Residence located at 42 Yuba River Circle, Sacramento, CA 95831

As requested by Mr. Tom Yancey, 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 1, 1999. 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 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	One
Dimensions	Approximately 2500 square feet with a first story plate height of 8 feet.

CONSTRUCTION:

Roof

The roof covering will consist of Bartile Light Weight Concrete Tile over 1/2" solid sheathing. The living area is conventionally framed with 2x6 rafters spaced at both 16" and 24" on center with 2x6 purlins supported at no more than 6'-0" on center by 2x4 struts bearing on walls below except for the vaulted ceiling area. The vaulted ceiling is constructed of 2x8 rafters spaced at 16" on center over 2x8 ceiling joists spaced at 24" on center. The garage area is framed with 2x6 rafters spaced at 24" on center and 2x6 cross ties spaced at 4'-0" on center.

CONCLUSIONS:

Roof

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

work req'd per skt. 5.
1/5 Matt P 8/17/99

File#

Paul Zacher – Structural Engineers
4701 Lakeside Way
San Diego, CA 95628

TEL: 916.961.3960
FAX: 916.961.3960

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. Add a 2x12 DF#2 x 14'-6" long purlin and wedge it between the rafters and the ceiling joists. Attach it to each rafter and ceiling joist with 2-10d's toe nailed. See detail 1.

Garage

2. Provide a double 2x4 strut from the existing valley/ ridge connection to the bearing wall below. The unbraced length of the struts shall not exceed 8'-0". See detail 1.


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	6	in 12
Pitch Adjustment Factor	1.12	

LOCATION: ROOF

<u>MATERIAL</u>	<u>WEIGHT</u>	
Battled Light Weight	7.00	psf
Roofing felt	0.30	psf
1x4 skip sh't'g	1.09	psf
1/2" OSB plywood	1.50	psf
1x6 ratters @ 24" oc	1.00	psf
Load	10.9	psf
Roof Pitch Adjustment	1.29	psf
Total Load	12.2	psf

LOCATION: VAULT

<u>MATERIAL</u>	<u>WEIGHT</u>	
Battled Light Weight	7.00	psf
Roofing felt	0.30	psf
1/2" OSB plywood	1.50	psf
1x4 skip sh't'g	1.09	psf
2x8 ratters @ 16" oc	1.99	psf
Batt/blown insul	0.50	psf
1/2" Gypboard	2.50	psf
Load	14.9	psf
Roof Pitch Adjustment	1.76	psf
Total Load	16.6	psf

Timber Beam & Joist

Description RAFTERS AND BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

		2x6 rafter	vault	patio
Timber Section		2x6	2x8	4x14
Beam Width	in	1.500	1.500	3.500
Beam Depth	in	5.500	7.250	13.250
Unbraced Length	ft	2.00	0.00	0.00
Timber Grade		Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch
F _b Basic Allow	psi	875.0	875.0	875.0
E _{min} Basic Allow	psi	95.0	95.0	95.0
Elastic Modulus	ksi	1,600.0	1,600.0	1,600.0
Load Duration Factor		1.250	1.250	1.250
Member Type		Sawn	Sawn	Sawn
Repetitive Status		Repetitive	Repetitive	No

Center Span Data

	ft	11.75	18.00	14.50
Span				
Dead Load	#/ft	24.40	13.30	86.00
Live Load	#/ft	32.00	12.80	112.00

Results

Ratio = 0.9626 0.6395 0.5575

M _{max} @ Center	in-k	11.68	12.68	62.44
@ X =	ft	5.87	9.00	7.25
F _b Actual	psi	1,544.5	965.3	609.7
F _b Allowable	psi	1,604.5	1,509.4	1,093.8
		Bending OK	Bending OK	Bending OK
V _{max} Actual	psi	55.9	30.3	39.4
V _{max} Allowable	psi	118.8	118.8	118.8
		Shear OK	Shear OK	Shear OK

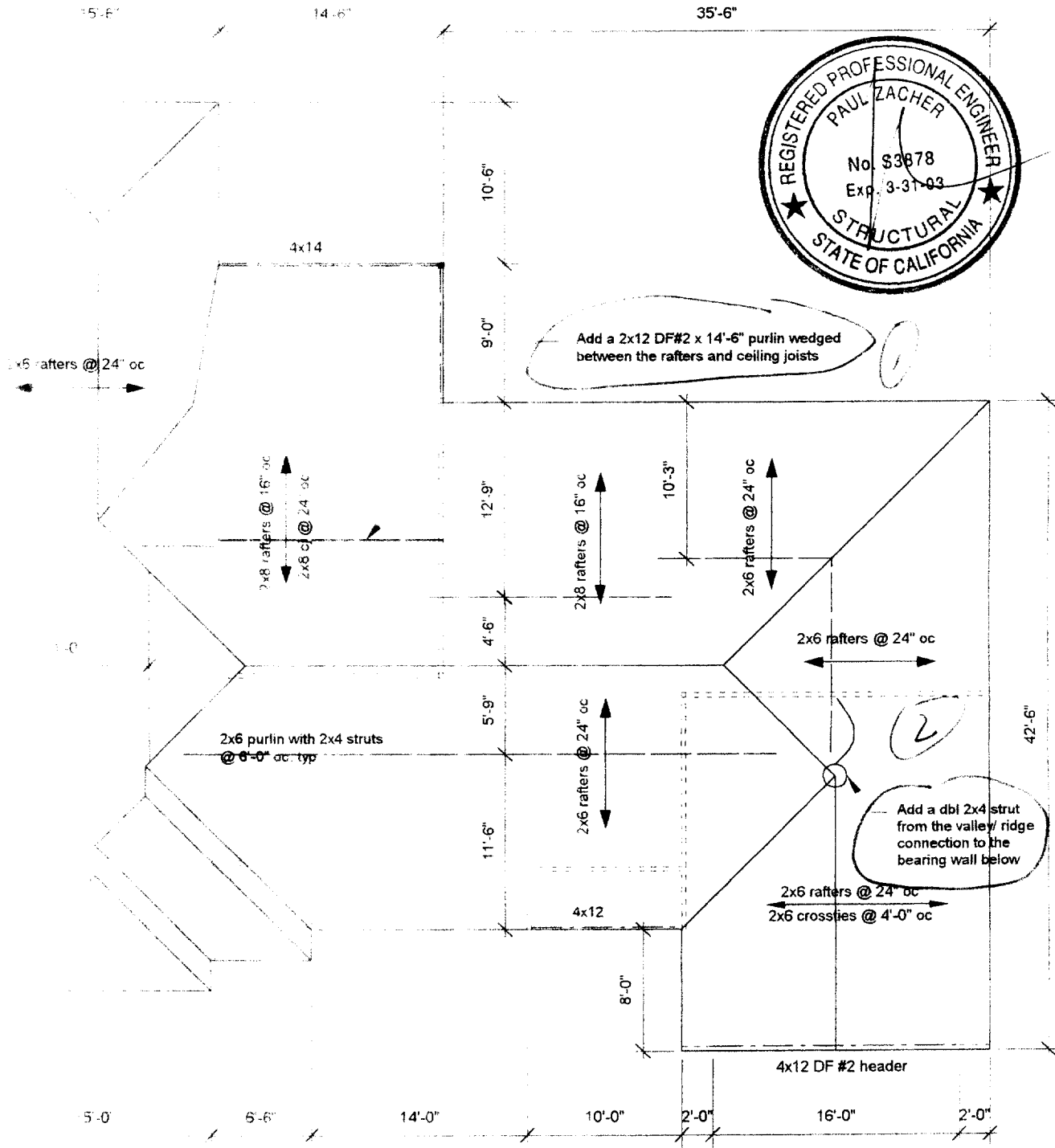
Reactions

@ Left End	DL	lbs	143.35	119.70	623.50
	LL	lbs	188.00	115.20	812.00
	Max DL+LL	lbs	331.35	234.90	1,435.50
@ Right End	DL	lbs	143.35	119.70	623.50
	LL	lbs	188.00	115.20	812.00
	Max DL+LL	lbs	331.35	234.90	1,435.50

Deflections

Center DL Defl	in	-0.314	-0.412	-0.079
Defl Ratio		448.4	524.1	2,208.3
Center LL Defl	in	-0.412	-0.397	-0.103
Defl Ratio		341.9	544.5	1,695.7
Center Total Defl	in	-0.727	-0.809	-0.181
Location	ft	5.875	9.000	7.250
Defl Ratio		194.0	267.1	959.2

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Allen road #2

Notes

- 1 This is a reroof project. The new roofing material shall be a Bartile Light Weight Concrete Tile.
- 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 2326.12 'Roof and Ceiling Framing' unless otherwise shown.

1

ROOF PLAN - ALLEN

Not to Scale

