

CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 9905196

Insp Area: 2

Site Address: 6640 HAVENSIDE DR SAC

Parcel No: 030-0130-023

Sub-Type: RES

Housing (Y/N): N

CONTRACTOR

WARREN CONSTRUCTION
4415 GRANITE DR
ROCKLIN CA 95677

OWNER

GILLESPIE ARLENE/HELEN LAZZARO
6640 HAVENSIDE DR
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: REROOF 40 SQR W/LIGHT WEIGHT 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 625052 Date 5/21/99 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.

Date 5/21/99 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 no employees 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 5/21/99 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.

CONCLUSIONS

Roof

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

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 2x12 DF#2 x 12'-0" long purlin to the existing 2x6 purlin which spans 12'-0". Attach it with 16d's @ 3" on center. Support the 2x12 to the bearing walls below with 2x4 struts. See details 1 and 2.
2. Add 2x8 DF#2 x 12'-0" outlookers at 4'-0" on center around the perimeter of the gabled ends. See details 1 and 3.
3. Add 2x8 DF#2 x 12'-0" long fascia boards at the ends of the roof next to the barge rafters. End nail the fascia to each rafter tail with 3-16d's. See detail 1.
4. Scab a 2x6 DF#2 rafter to the existing 2x6 rafters with 16d's @ 12" on center where the span is greater than 11'-0". See detail 1.
5. Scab a 2x10 DF#2 x 18'-0" to the each existing 2-2x10 beams with 16d's @ 6" on center. Laterally support the ends of the 3-2x10 beams with 2x blocking. Add a 2x8 x 2'-8" long ledger to support the 3-2x10 beams at the walls and attach to each stud with 4-16d's. See detail 1.
6. Reinstall the 4x6 purlin so that the bottom of the purlin is flush with the top of the 3-2x10 beams. Toe nail each rafter to the 4x purlin, and the 4x purlin to the 3-2x10 beam with a minimum of 2-10d's. See detail 1.
7. Reinstall the 2x4 struts that support the 2x6 purlin. See detail 1.
8. Replace the barge rafters with 2x10 DF#2 continuous members. End nail the barge rafter to each 2x8 outlooker with 4-16d's. See detail 1.
9. Install 2" diameter pipe post at the end of the cantilevered 4x patio beam and between each of the 4x6 x 12'-0" long patio beams. See details 1 and 5.

Garage

10. Scab a 1 3/4" x 14" x 22'-0" long microlam beam to the existing 4x12 header. See details 1 and 6.
11. Scab 2-2x6 DF#2 rafters to the existing 2x6 rafters with 16d's @ 12" on center where the span is greater than 12'-0". See detail 1.

It shall be noted that small hairline cracking may occur at exterior stucco and interior gypsum 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.

Reviewed by Matt P. 5/21/99

02/06/10

Paul Zacher – Structural Engineers
4001 Lakeside Way
Fair Oaks, CA 95628


TEL: 916.961.3960
FAX: 916.961.3960

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>	
Standard Weight Concrete Tile	10.30	psf
Roofing felt	0.30	psf
1/4" 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>	
Standard Weight Concrete Tile	10.30	psf
Roofing felt	0.30	psf
1/2" OSB/ plywood	1.50	psf
1/4" skip sht'g	1.09	psf
2x10 rafters @ 16" oc	2.53	psf
Batt/blown insul	0.50	psf
2" Gypboard	<u>2.50</u>	psf
	Load	18.7 psf
Roof Pitch Adjustment	<u>1.01</u>	psf
Total Load	19.7	psf

PAUL ZACHER - STRUCTURAL ENGINEERS
 4701 LAKESIDE WAY
 FAIR OAKS, CA 95628
 TEL. 916.961.3960
 FAX. 916.961.3960

Title :
 Dsgnr:
 Description :

Job #
 Date: 7:37PM 17 APR 99

Scope :

Timber Beam & Joist

Description RAFTERS AND BEAMS

Member Information

	2x6	2-2x6	2x10 vault	4x6	microlam	3-2x10
Timber Section	2x6	2-2x6	2x10	4x6	LVL:3.500x	3-2x10
Beam Width	in 1.500	3.000	1.500	3.500	3.500	4.500
Beam Depth	in 5.500	5.500	9.250	5.500	14.000	9.250
Unbraced Length	ft 2.00	0.00	0.00	0.00	0.00	9.00
Timber Grade	Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch	Truss Joist - MacMil	Douglas Fir - Larch, Douglas Fir - Larch
E _b Basic Allow	psi 875.0	875.0	875.0	875.0	2,600.0	875.0
E _c Basic Allow	psi 95.0	95.0	95.0	95.0	285.0	95.0
Elastic Modulus	ksi 1,600.0	1,600.0	1,600.0	1,600.0	1,800.0	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
Repetitive Status	Repetitive	Repetitive	Repetitive	No	No	No

Center Span Data

Span	ft	11.42	14.50	18.00	6.00	23.00	18.00
Dead Load	#/ft	30.00	30.00	20.00	98.00	169.00	
Live Load	#/ft	32.00	32.00	21.33	104.00	180.00	
Point #1 DL	lbs						562.00
Point #2 DL	lbs						600.00
Point #3 DL	ft						9.000
Ratio =		0.9978	0.7906	0.6787	0.4348	0.7453	0.7506
M _{max} @ Center	in-k	12.13	19.55	20.09	10.91	276.93	62.75
@ 1/4	ft	5.71	7.25	9.00	3.00	11.50	9.00
f _b Actual	psi	1,603.6	1,292.8	939.0	618.2	2,422.1	977.8
f _b Allowable	psi	1,607.3	1,635.2	1,383.6	1,421.9	3,250.0	1,302.7
		OK	OK	OK	OK	Bending OK	Bending OK
v _h Actual	psi	59.2	38.6	37.0	40.0	111.1	20.9
v _h Allowable	psi	118.8	118.8	118.8	118.8	356.3	118.8
		OK	OK	OK	OK	Shear OK	Shear OK

Reactions

@ Left End	DL	lbs	171.30	217.50	180.00	294.00	1,943.50	281.00
	LL	lbs	182.72	232.00	191.97	312.00	2,070.00	300.00
	Max DL+LL	lbs	354.02	449.50	371.97	606.00	4,013.50	581.00
@ Right End	DL	lbs	171.30	217.50	180.00	294.00	1,943.50	281.00
	LL	lbs	182.72	232.00	191.97	312.00	2,070.00	300.00
	Max DL+LL	lbs	354.02	449.50	371.97	606.00	4,013.50	581.00

Deflections

Center DL Defl	in	-0.345	-0.448	-0.298	-0.037	-0.739	-0.248
DL Defl Ratio		397.2	388.1	723.8	1,956.3	373.7	869.3
Center LL Defl	in	-0.368	-0.478	-0.318	-0.039	-0.787	-0.265
LL Defl Ratio		372.4	363.8	678.7	1,843.4	350.8	814.3
Center Total Defl	in	-0.713	-0.927	-0.617	-0.076	-1.525	-0.514
Location	ft	5.710	7.250	9.000	3.000	11.500	9.000
Total Defl Ratio		192.2	167.8	350.3	949.1	180.9	420.4

SCAB 2x12x12" TO
2x6x12" PURLIN (2)

ADD 1/2" PIPE POT & END OF WALL (TOTAL 2)

(5)



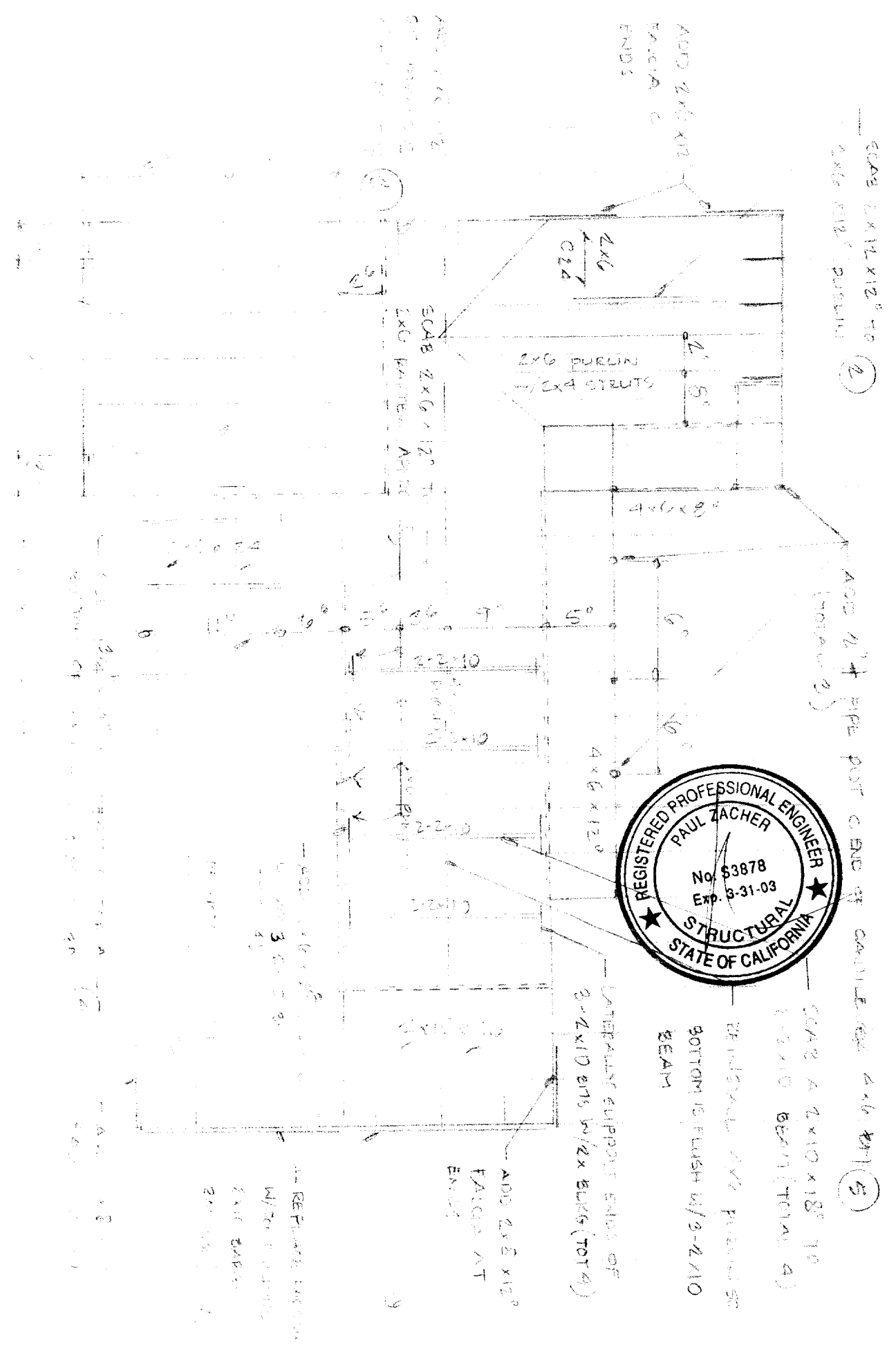
SCAB 4x12x18" TO
2x10 BEAM (TOTAL 4)

REINFORCE 4x12 PURLIN TO
BOTTOM IS FLASH W/ 3-2x10
BEAM

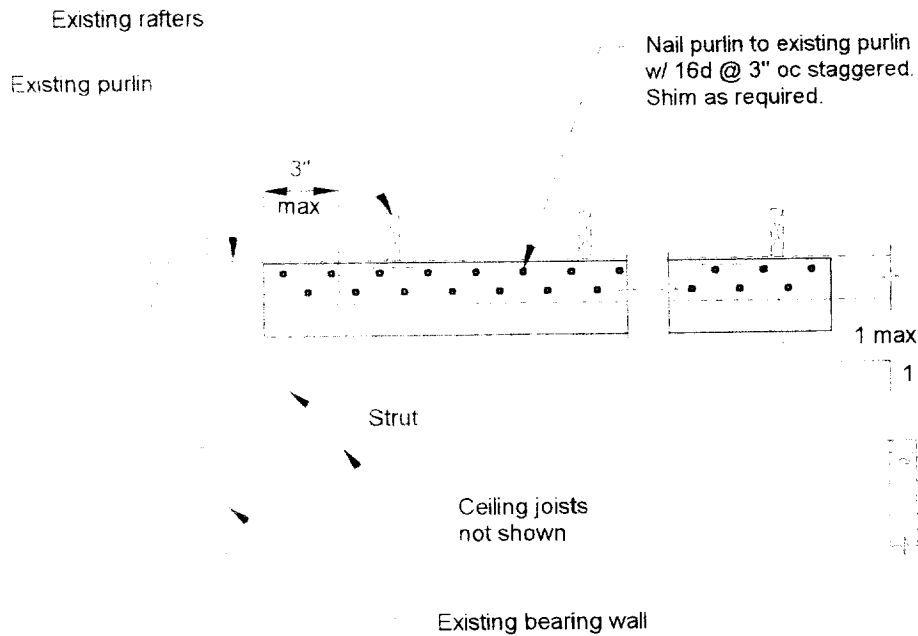
LATERAL SUPPORT ENDS OF
3-2x10 ENTS W/ 2x8x6 (TOTAL 3)

ADD 2x8x12"
FACE AT
ENDS

REPLACE SECTION
W/ 2x8x12"
FACE AT
ENDS



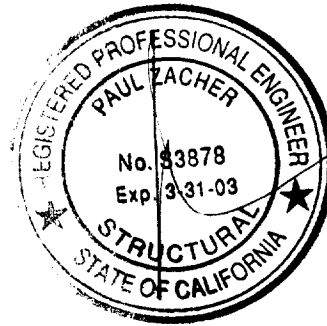
Handwritten notes and dimensions on the left side of the drawing, including '10' 0"', '12' 0"', '14' 0"', '16' 0"', '18' 0"', '20' 0"', '22' 0"', '24' 0"', '26' 0"', '28' 0"', '30' 0"', '32' 0"', '34' 0"', '36' 0"', '38' 0"', '40' 0"', '42' 0"', '44' 0"', '46' 0"', '48' 0"', '50' 0"', '52' 0"', '54' 0"', '56' 0"', '58' 0"', '60' 0"', '62' 0"', '64' 0"', '66' 0"', '68' 0"', '70' 0"', '72' 0"', '74' 0"', '76' 0"', '78' 0"', '80' 0"', '82' 0"', '84' 0"', '86' 0"', '88' 0"', '90' 0"', '92' 0"', '94' 0"', '96' 0"', '98' 0"', '100' 0"', '102' 0"', '104' 0"', '106' 0"', '108' 0"', '110' 0"', '112' 0"', '114' 0"', '116' 0"', '118' 0"', '120' 0"', '122' 0"', '124' 0"', '126' 0"', '128' 0"', '130' 0"', '132' 0"', '134' 0"', '136' 0"', '138' 0"', '140' 0"', '142' 0"', '144' 0"', '146' 0"', '148' 0"', '150' 0"', '152' 0"', '154' 0"', '156' 0"', '158' 0"', '160' 0"', '162' 0"', '164' 0"', '166' 0"', '168' 0"', '170' 0"', '172' 0"', '174' 0"', '176' 0"', '178' 0"', '180' 0"', '182' 0"', '184' 0"', '186' 0"', '188' 0"', '190' 0"', '192' 0"', '194' 0"', '196' 0"', '198' 0"', '200' 0"'.
 Additional notes: 'ADD 2x6x12' ENDS', 'ADD 2x8x12' FACE AT ENDS', 'REPLACE SECTION W/ 2x8x12' FACE AT ENDS', 'LATERAL SUPPORT ENDS OF 3-2x10 ENTS W/ 2x8x6 (TOTAL 3)', 'REINFORCE 4x12 PURLIN TO BOTTOM IS FLASH W/ 3-2x10 BEAM', 'SCAB 4x12x18" TO 2x10 BEAM (TOTAL 4)', 'SCAB 2x6x12" TO 2x6x12" PURLIN (2)', 'ADD 1/2" PIPE POT & END OF WALL (TOTAL 2)'.
 Dimensions: '10' 0"', '12' 0"', '14' 0"', '16' 0"', '18' 0"', '20' 0"', '22' 0"', '24' 0"', '26' 0"', '28' 0"', '30' 0"', '32' 0"', '34' 0"', '36' 0"', '38' 0"', '40' 0"', '42' 0"', '44' 0"', '46' 0"', '48' 0"', '50' 0"', '52' 0"', '54' 0"', '56' 0"', '58' 0"', '60' 0"', '62' 0"', '64' 0"', '66' 0"', '68' 0"', '70' 0"', '72' 0"', '74' 0"', '76' 0"', '78' 0"', '80' 0"', '82' 0"', '84' 0"', '86' 0"', '88' 0"', '90' 0"', '92' 0"', '94' 0"', '96' 0"', '98' 0"', '100' 0"', '102' 0"', '104' 0"', '106' 0"', '108' 0"', '110' 0"', '112' 0"', '114' 0"', '116' 0"', '118' 0"', '120' 0"', '122' 0"', '124' 0"', '126' 0"', '128' 0"', '130' 0"', '132' 0"', '134' 0"', '136' 0"', '138' 0"', '140' 0"', '142' 0"', '144' 0"', '146' 0"', '148' 0"', '150' 0"', '152' 0"', '154' 0"', '156' 0"', '158' 0"', '160' 0"', '162' 0"', '164' 0"', '166' 0"', '168' 0"', '170' 0"', '172' 0"', '174' 0"', '176' 0"', '178' 0"', '180' 0"', '182' 0"', '184' 0"', '186' 0"', '188' 0"', '190' 0"', '192' 0"', '194' 0"', '196' 0"', '198' 0"', '200' 0"'.
 Material labels: '2x6', '2x8', '2x10', '2x12', '4x6', '4x8', '4x10', '4x12', '2x4', '2x6', '2x8', '2x10', '2x12', '4x6', '4x8', '4x10', '4x12', '1/2" PIPE POT', 'FACE AT ENDS', 'REPLACE SECTION W/ 2x8x12' FACE AT ENDS', 'LATERAL SUPPORT ENDS OF 3-2x10 ENTS W/ 2x8x6 (TOTAL 3)', 'REINFORCE 4x12 PURLIN TO BOTTOM IS FLASH W/ 3-2x10 BEAM', 'SCAB 4x12x18" TO 2x10 BEAM (TOTAL 4)', 'SCAB 2x6x12" TO 2x6x12" PURLIN (2)', 'ADD 1/2" PIPE POT & END OF WALL (TOTAL 2)'.
 Professional Engineer Seal: 'REGISTERED PROFESSIONAL ENGINEER', 'PAUL ZACHER', 'No. 53878', 'Exp. 3-31-03', 'STRUCTURAL', 'STATE OF CALIFORNIA'.



2

PURLIN DETAIL

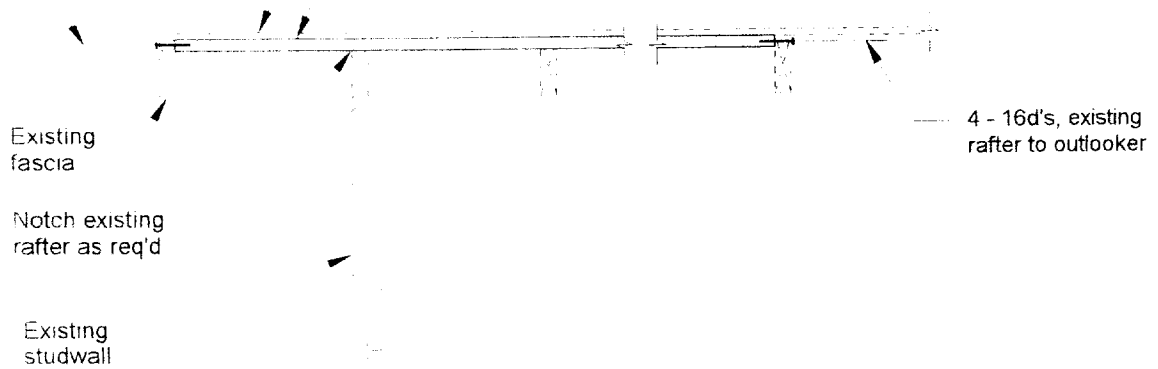
scale: 1/2" = 1'-0"



Existing "V-rustic"

2x8 X 12'-0" outlooker
@ 4'-0" oc

4 - 16d's existing
fascia to outlooker

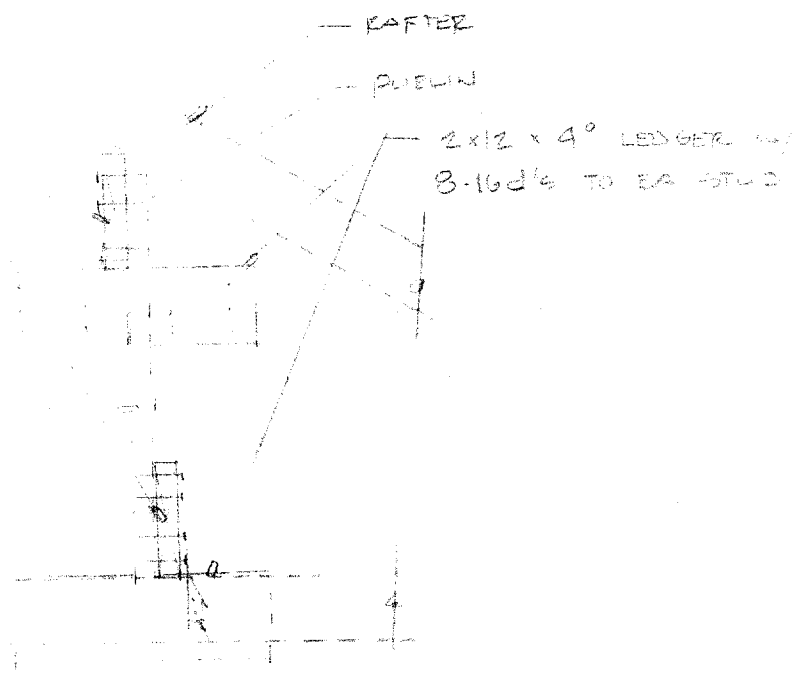


3

OUTLOOKER DETAIL

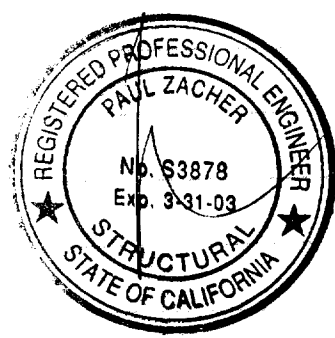
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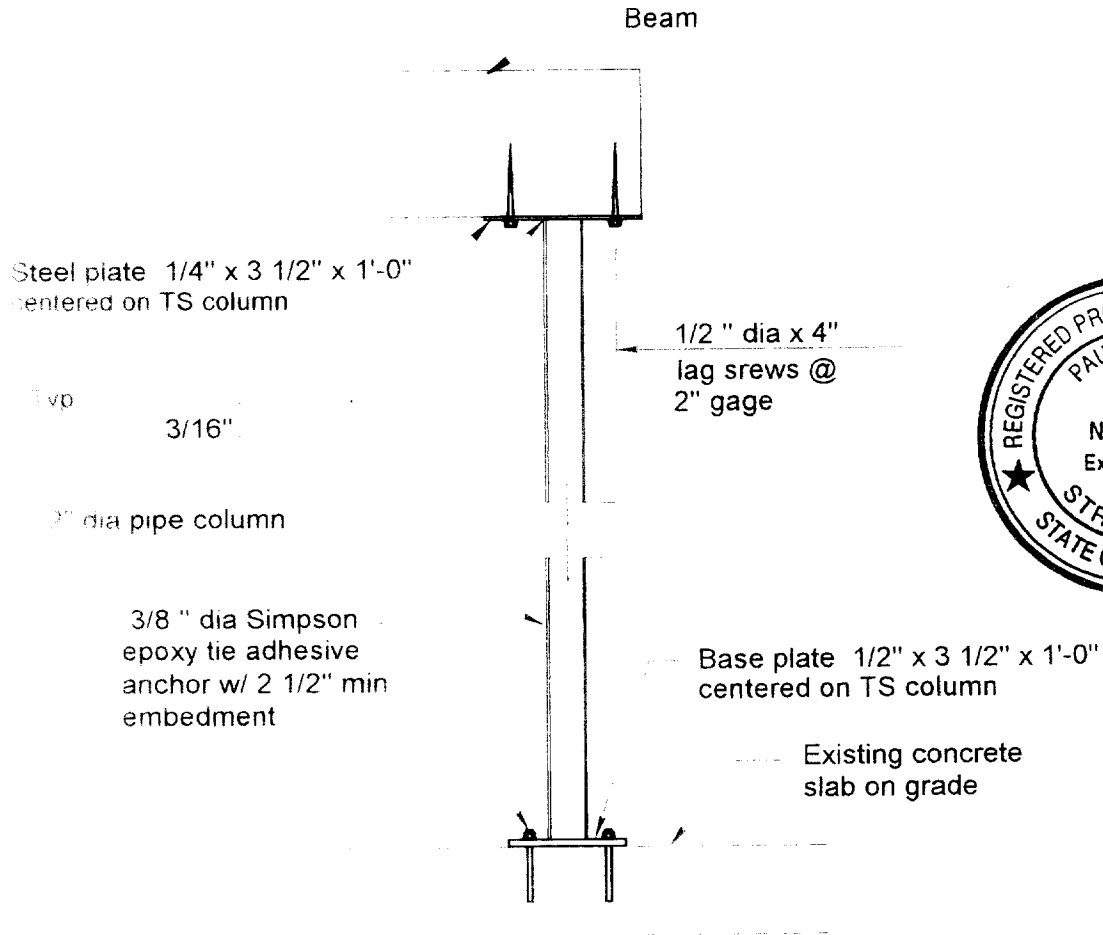
1. 2x12x4 LEADER W/
8-16d's TO EA STUD



2. SIMPSON H1, EACH
CEILING JOIST TO MICROPILE

DETAIL
N.T.S

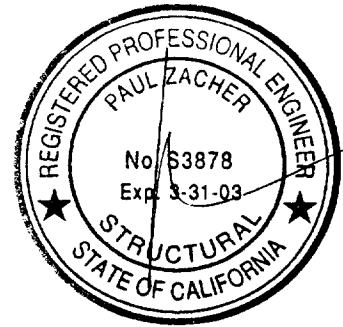




NOTE:

The Simpson epoxy tie adhesive listings/ Approvals are as follows:
 ICBO: Evaluation Report No. 4945
 City of L A: Nos. RR 25120 & RR 25185 (ET22)

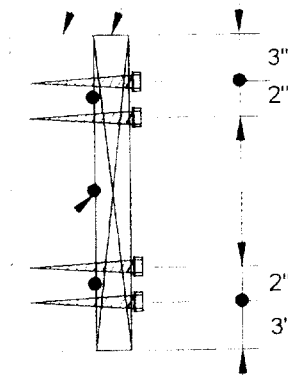
Ⓢ DETAIL
 NTS



Existing header or beam

1 3/4" x 14" x 22'-0" microlam beam. Attach to existing header with 5/16" dia x 5" lag screws @ 6" oc staggered. Attach to each stud at the ends of the beam with 4 - 3/8" dia lag screws.

Apply 3 continuous beads (rows) of "Liquid Nail" or equal along length of beams.



5/16" dia x 5" lag screws @ 6" oc staggered.

6

HEADER DETAIL

scale 1 1/2" = 1'-0"

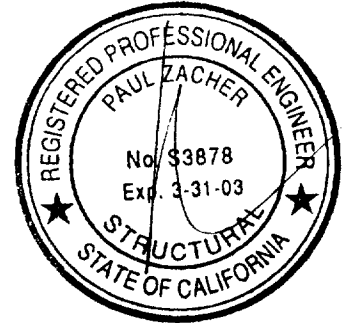
LaZaroni

Paul Zacher – Structural Engineers
4701 Lakeside Way
Fair Oaks CA 95628

TEL: 916.961.3960
FAX: 916.961.3960

April 18, 1999

Warren Construction and Roofing
4415 Granite Drive, Suite 600
Rocklin, CA 95677
TEL: (916) 630-9300
FAX:



Attn: Mr. Brian Warren.

re: Job 99072: LAZARONI

Subject: Structural Investigation Report of the Roof for the Residence located at 6640 Havenside Drive, Sacramento, CA 95831

As requested by Mr. Brian Warren, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site April 16, 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 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 1970's vintage.
Occupancy: Residential
No. of Stories: One.
Dimensions: Approximately 3000 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 conventionally framed with 2x6 rafters spaced at 24" on center with 2x6 purlins supported at no more than 12'-0" on center by 2x4 struts bearing on walls below except for the vaulted ceiling area. 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 2x6 rafters spaced at 24" on center and 2x6 cross ties spaced at 4'-0" on center.