

CITY OF SACRAMENTO

Permit No: 9809878

1231 I Street, Sacramento, CA 95814

Insp Area: 3

Site Address: 18 RIDGEMARK CT SAC

Sub-Type: RES

Parcel No: 0310350009

Housing (Y/N): N

CONTRACTOR

ZIMMERMAN ROOFING
3560 RAMONA AV
SACRAMENTO, CA

95826

OWNER

DEA GILLAND/HELEN TOY
18 RIDGEMARK CT
SACRAMENTO CA

95831

ARCHITECT

Nature of Work: TEAR OFF AND 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 C39 License Number 557559 Date 10-6-98 Contractor Signature Billy 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 10-6-98 Applicant/Agent Signature Billy 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 98002021

____ (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 10-6-98 Applicant Signature Billy 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.



DEPARTMENT OF
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO
CALIFORNIA

1231 I STREET
ROOM 200
SACRAMENTO, CA
95814-2998

Permit Services
916-264-7619
FAX 916-264-7046

2.11 Dea
1.8 R. Duymast
95814

TILE ROOF WORKSHEET

This worksheet must be filled out whenever any type of tile roof is applied for.

If the answer to question #5 is yes, a written engineering report from a registered engineer must be provided with each application.

1. BRAND AND MODEL OF TILE Pioneer Everwest
2. TILE WEIGHT PER SQUARE 730
3. WEIGHT OF ROOF SYSTEM PER SQUARE 180
4. TOTAL WEIGHT OF ROOF SYSTEM 910
5. DOES TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE? YES NO
6. ROOF SLOPE 4/12

PLEASE PROVIDE A SEPARATE WORKSHEET FOR EACH APPLICATION INVOLVING A TILE ROOF.

acc attached engin report

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 30, 1998

Zimmerman Roofing
3560 Ramona Avenue
Sacramento, CA 95826
TEL: 916.454.3667
FAX: 916.455.3784
TEL (Jeff): 916.392.1971
FAX (Jeff): 916.392.6853
FAX (Framer) : 916.383.5308

Attn.: Mr. Jeff Tucker,

re: Job 98244: DEA

Subject: Structural Investigation Report of the Roof for the Residence located at 18 Ridgemark Court, 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 September 29, 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 1970's vintage.
Occupancy: Residential.
No. of Stories: One.
Dimensions: Approximately 2000 square feet with a first story plate height of 8 feet.

CONSTRUCTION:

Roof:
The roof covering will consist of Pioneer Light 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 6'-0" on center by 2x4 struts bearing on walls below. 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.

Dea

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. Provide additional 2x4 struts from the existing purlins to the bearing walls below. The maximum spacing between the new and existing struts shall not exceed 6'-0" on center. The unbraced length of the struts shall not exceed 8'-0" and the minimum slope of the struts shall not be less than 45 degrees from the horizontal. See detail 1.

Garage:

2. Scab a 1 3/4" x 11 7/8" microlam beam to the existing 2x6 crosstie and nail together with 16d's @ 12" oc. The ends of the microlam may be clipped as required to meet the slope of the rafters. The support at the walls shall be a 2x8 x 1'-4" long nailer attached to the double top plate with 16d's @ 2" oc staggered. Support the existing ridge/ hip valley connection to the microlam beam with 2x4 struts. See details 1, 2 and 3.

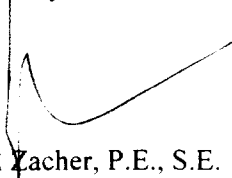
It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls which are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and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

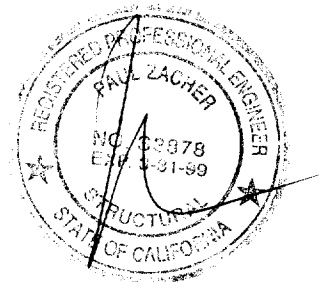
The inspection consisted of visual observation only, made solely to determine the structural capacity of the existing roof. Analysis does not determine any effects on the overall structure under lateral forces or effects on the foundation unless specifically noted in the calculations and in this document. 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



Title :
 Dsgnr:
 Description :

Job #
 Date:

Scope :

Rev 510001

Timber Beam & Joist

Page 1

Description RAFTERS AND BEAMS

Timber Member Information

		2x6	4x10	4x12	microlam
Timber Section		2x6	4x10	4x12	LVL:1.750x
Beam Width	in	1.500	3.500	3.500	1.750
Beam Depth	in	5.500	9.250	11.250	11.875
Le: Unbraced Length	ft	0.00	2.00	2.00	2.00
Timber Grade		Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch	Truss Joist - MacMil
Fb - Basic Allow	psi	875.0	875.0	875.0	2,600.0
Fv - Basic Allow	psi	95.0	95.0	95.0	285.0
Elastic Modulus	ksi	1,600.0	1,600.0	1,600.0	1,800.0
Load Duration Factor		1.250	1.250	1.250	1.250
Member Type		Sawn	Sawn	Sawn	
Repetitive Status		Repetitive	No	No	No

Center Span Data

Span	ft	12.00	15.00	15.00	22.00
Dead Load	#/ft	23.00	58.00	86.00	
Live Load	#/ft	32.00	80.00	120.00	
Dead Load	#/ft				
Live Load	#/ft		0.25		
Start	ft				
End	ft				
Point #1 DL	lbs				632.00
LL	lbs				880.00
@ X	ft				11.000

Results

	Ratio =	0.9607	0.7155	0.7872	0.7920
Mmax @ Center	in-k	11.88	46.66	69.52	99.79
@ X =	ft	6.00	7.50	7.50	11.00
fb : Actual	psi	1,570.9	934.8	941.7	2,426.3
Fb : Allowable	psi	1,635.2	1,306.6	1,196.3	3,063.4
		Bending OK	Bending OK	Bending OK	Bending OK
fv : Actual	psi	55.7	43.4	51.8	54.6
Fv : Allowable	psi	118.8	118.8	118.8	356.3
		Shear OK	Shear OK	Shear OK	Shear OK

Reactions

@ Left End DL	lbs	138.00	435.00	645.00	316.00
LL	lbs	192.00	601.87	900.00	440.00
Max. DL+LL	lbs	330.00	1,036.87	1,545.00	756.00
@ Right End DL	lbs	138.00	435.00	645.00	316.00
LL	lbs	192.00	601.87	900.00	440.00
Max. DL+LL	lbs	330.00	1,036.87	1,545.00	756.00

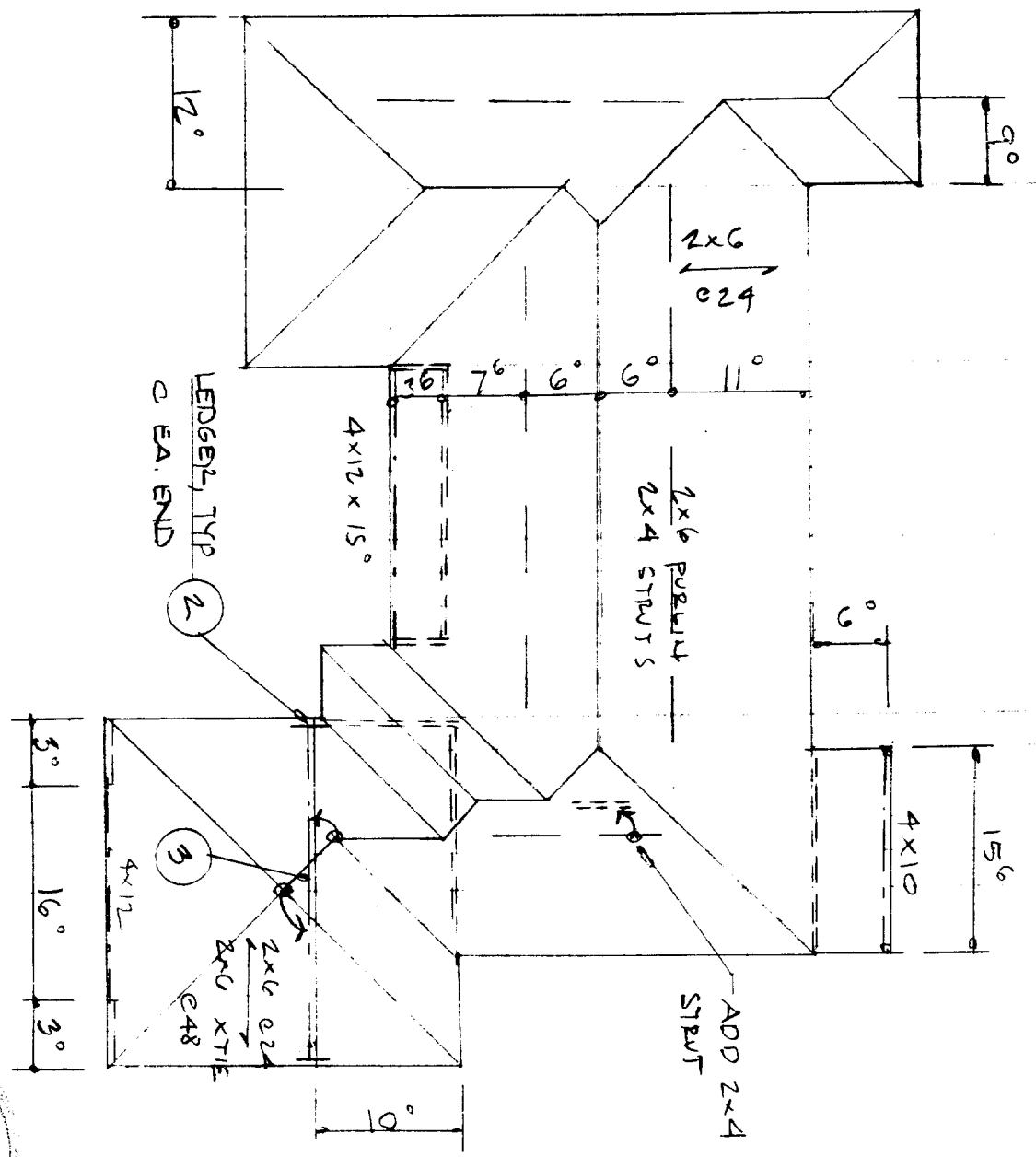
Deflections

Center DL Defl	in	-0.322	-0.179	-0.147	-0.551
L/Defl Ratio		446.5	1,006.3	1,221.0	479.0
Center LL Defl	in	-0.449	-0.247	-0.206	-0.767
L/Defl Ratio		320.9	727.3	875.0	344.0
Center Total Defl	in	-0.771	-0.426	-0.353	-1.319
Location	ft	6.000	7.500	7.500	11.000
L/Defl Ratio		186.7	422.2	509.7	200.2

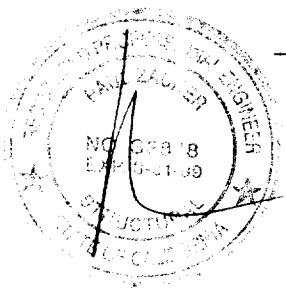
4



1 ROOF PLAN - DEEA
N.T.S.



SCAB 3/4 x 1 7/8 ML TO EXISTING 2x6
CROSSTIE, ADD 2x4 STRUT FROM RIDGE
HIP/VALLEY CONNECTION TO ML.



LEDGER DESIGN:

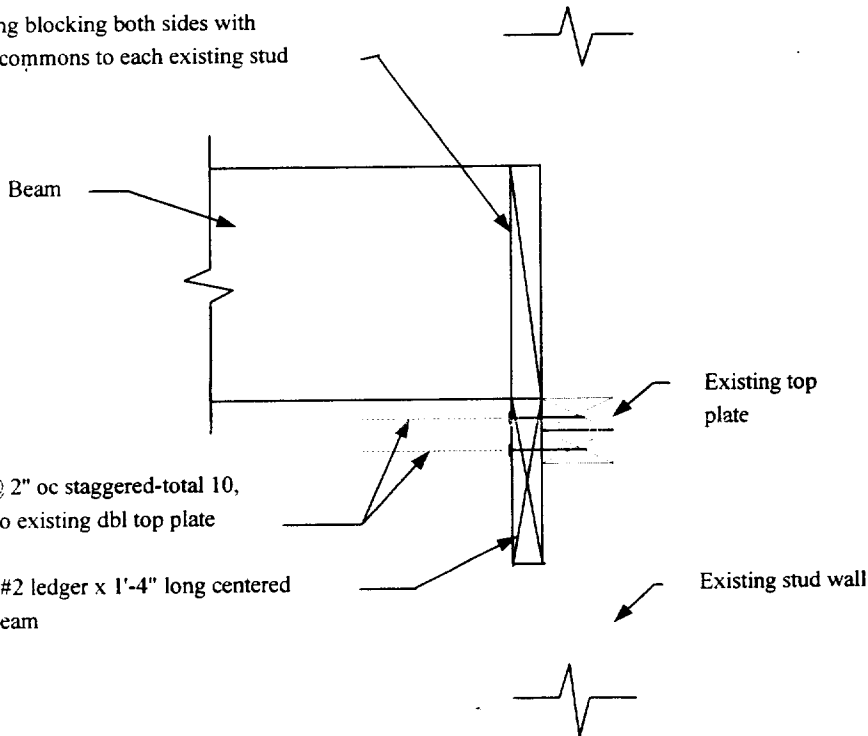
WOOD TO WOOD CONNECTION: Ledger to double top plate

Assumptions:

1. Point load from beam is equally distributed to each supporting stud.
2. Allowable foundation pressure is 1000 plf.

Ledger width, b	1.5 inches	
Ledger depth, d	7.25 inches	
Maximum reaction	756 lbs	
Base design values:		
Shear, Fv	95 psi	
Bending, Fb	875 psi	
Comp. perp. to grain, Fc	625 psi	
Mod of elasticity, E	1600000 psi	
Load duration factor, Cd	1.25	
Size factor, Cf	1.20	
Allowable shear, Fv'	119 psi	Horizontal Shear OK
Actual shear, fv	42 psi	
Allowable bending, Fb'	1313 psi	Bending OK
Actual bending, fb	115 psi	
Length of ledger required	0.756 feet	
Length of ledger used	1.33 feet	
Number of nails required	10 16d sinkers ledger to top plate	

1'-4" long blocking both sides with
4 - 16d commons to each existing stud



16d's @ 2" oc staggered-total 10,
ledger to existing dbl top plate

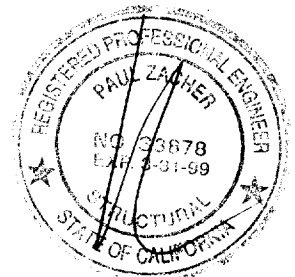
2x8 DF#2 ledger x 1'-4" long centered
under beam

LEDGER DETAIL



Not to Scale

6



Simpson TS18,
strongback to beam,
each side

Strut not shown
(where occurs)

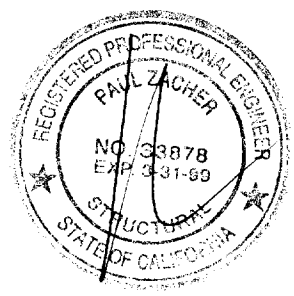
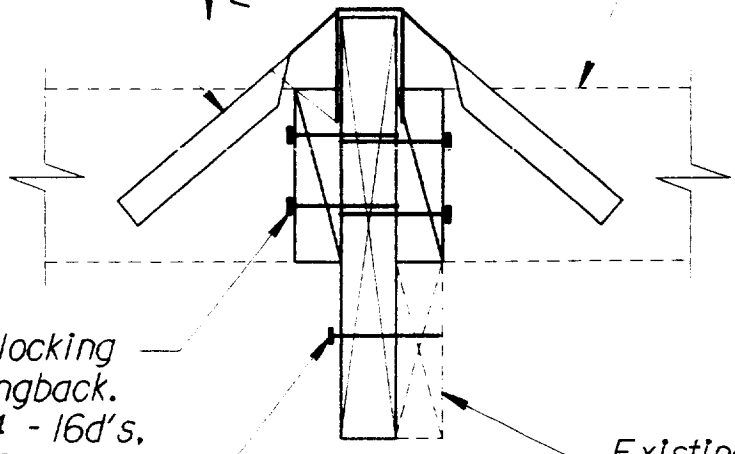
Existing 2x
strongback

4"
min

2x6 x 1'-0" long blocking
both sides of strongback.
Nail to beam w/ 4 - 16d's,
typical each side of beam

Existing 2x cross tie
or ceiling joist

Beam. Nail to cross tie/
ceiling joist w/ 16d @ 12" oc



3

BEAM DETAIL

NO SCALE