

CITY OF SACRAMENTO

Permit No: 9811273

1231 I Street, Sacramento, CA 95814

Insp Area: 2

Site Address: 1166 27TH AV SAC

Sub-Type: RES

Parcel No: 0160252006

Housing (Y/N): N

CONTRACTOR

ZIMMERMAN ROOFING
3560 RAMONA AV
SACRAMENTO, CA

95826

OWNER

YEE FRANK
1166 27TH AV
SACRAMENTO CA

95822

ARCHITECT

Nature of Work: REMOVE OLD ROOF & REROOF W/PIONEER HACIENDA TILE 4/12 PITCH - 31SQS

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 11-12-98 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 11-12-98 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 GOLDEN EAGLE INS CORP Policy Number CCP560841-00 Exp Date 05/01/1999

(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.

Date 11-12-98 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

Frank Yee
1166 27th Ave
95822

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 Haelendo
2. TILE WEIGHT PER SQUARE 700
3. WEIGHT OF ROOF SYSTEM PER SQUARE 180
4. TOTAL WEIGHT OF ROOF SYSTEM 880
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

see attached engineering report

Yee

Paul Zacher-Structural Engineers

4701 Lakeside Way
Fair Oaks, CA 95628

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

October 24, 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 (Ron Parsons) : 916.383.5308



Attn: Mr. Jeff Tucker,

re: Job 98255: YEE

Subject: Structural Investigation Report of the Roof for the Residence located at 1166 27th Avenue, 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 October 22, 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 2x4 rafters spaced at 24" on center with 2x4 purlins supported at no more than 6'-0" on center by 2x4 struts bearing on walls below. The garage area is framed with 2x4 rafters spaced at 24" on center and 2x4 cross ties spaced at 6'-0" on center.

CONCLUSIONS:

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

Yee

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 2x6 DF#2 x 6'-0" long purlin to the existing 2x4 purlin which spans 6'-0". Attach it with 16d's @ 3" on center. Support the 2x6 to the bearing walls below with 2x4 struts. See details 1 and 3.
2. 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 4'-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.
3. Add a 1/2" OSB gusset plate adjacent to the strut and existing rafter connection (See detail 1 for the number and location) where the minimum slope of the struts is less than 45 degrees from the horizontal and attach it with 8d's at 6" on center at the edges. See details 1 and 2.

Garage

4. Add a 1 3/4" x 11 7/8" microlam beam with the ends blocked at the plate to prevent "roll over". The ends of the microlam may be clipped as required to meet the slope of the rafters. Support the existing ridge/ hip connection to the microlam beam with a 2x4 strut. See detail 1.
5. Add a 2x6 cross tie so that the maximum spacing does not exceed 4'-0" on center. Nail the cross tie to the existing rafter with 6 -16d's at each connection. See detail 1.
6. Scab a 2x4 rafter to the existing 2x4 rafters with 16d's @ 12" on center where the span is greater than 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

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

Title :
 Dsgnr:
 Description :
 Scope :

Job #
 Date: 7:59PM, 22 OCT 98

Rev 510001

Timber Beam & Joist

Description RAFTERS AND BEAMS

Timber Member Information

	2x4	2-2x4	4x6	microlam
Timber Section	2x4	2-2x4	4x6	LVL 1.750x
Beam Width	in: 1.500	3.000	3.500	1.750
Beam Depth	in: 3.500	3.500	5.500	11.875
Le: Unbraced Length	ft: 0.00	2.00	0.00	0.00
Timber Grade	Douglas Fir - Larch, Douglas Fir - Larch, Douglas Fir - Larch, Truss Joist - MacMillan			
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	Repetitive	No

Center Span Data

Span	ft:	8.00	10.00	10.00	19.00
Dead Load	#/ft	20.00	20.00	60.00	
Live Load	#/ft	32.00	32.00	96.00	
Point #1 DL	lbs				600.00
LL	lbs				960.00
@ X	ft				9.500

Results

	Ratio =	0.8640	0.7776	0.8110	0.6652
Mmax @ Center	in-k	4.99	7.80	23.40	88.92
@ X =	ft	4.00	5.00	5.00	9.50
fb Actual	psi	1,630.0	1,273.5	1,326.1	2,161.9
Fb: Allowable	psi	1,886.7	1,637.6	1,635.2	3,250.0
		Bending OK	Bending OK	Bending OK	Bending OK
fv Actual	psi	55.1	35.1	55.4	56.3
Fv: Allowable	psi	118.8	118.8	118.8	356.3
		Shear OK	Shear OK	Shear OK	Shear OK

Reactions

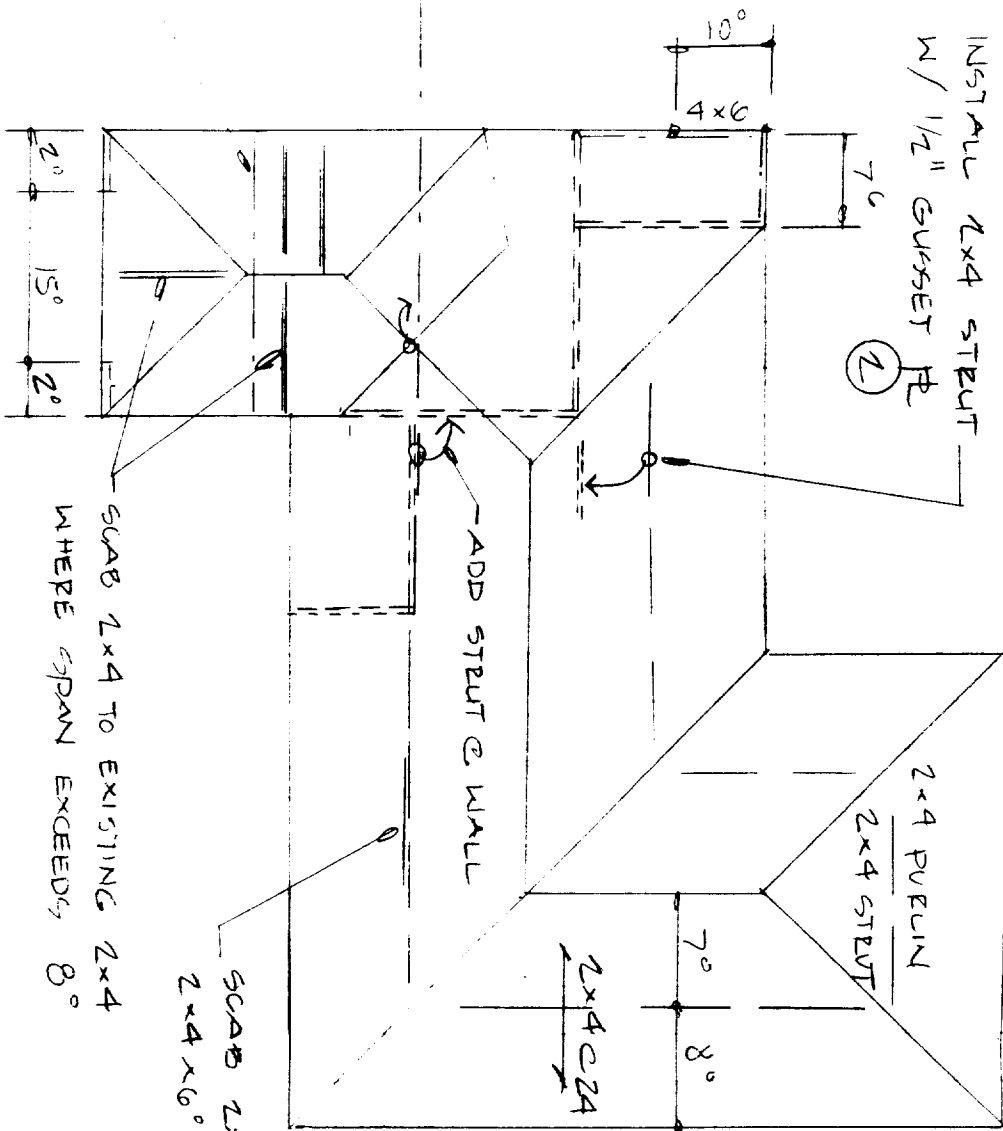
@ Left End DL	lbs	80.00	100.00	300.00	300.00
LL	lbs	128.00	160.00	480.00	480.00
Max. DL+LL	lbs	208.00	260.00	780.00	780.00
@ Right End DL	lbs	80.00	100.00	300.00	300.00
LL	lbs	128.00	160.00	480.00	480.00
Max. DL+LL	lbs	208.00	260.00	780.00	780.00

Deflections

Center DL Defl	in	-0.215	-0.262	-0.174	-0.337
L/Defl Ratio		446.6	457.3	690.2	676.5
Center LL Defl	in	-0.344	-0.420	-0.278	-0.539
L/Defl Ratio		279.1	285.8	431.4	422.8
Center Total Defl	in	-0.559	-0.682	-0.452	-0.876
Location	ft	4.000	5.000	5.000	9.500
L/Defl Ratio		171.8	175.9	265.4	260.2

ADD 1 3/4" x 1 1/8" ML, STRUT DOWN FROM HIP/RIDGE CONNECTION TO ML W/ 2x9 STRUT

INSTALL 1x4 STRUT W/ 1/2" GUSSET PL



ADD 2x6 CROSS TIE (TOTAL 1)

1 ROOF PLAN - TEE N.T.S.



Add 2x4 shim as req'd w/ 16d @ 8" oc to existing member

Existing rafter

Existing ceiling joist

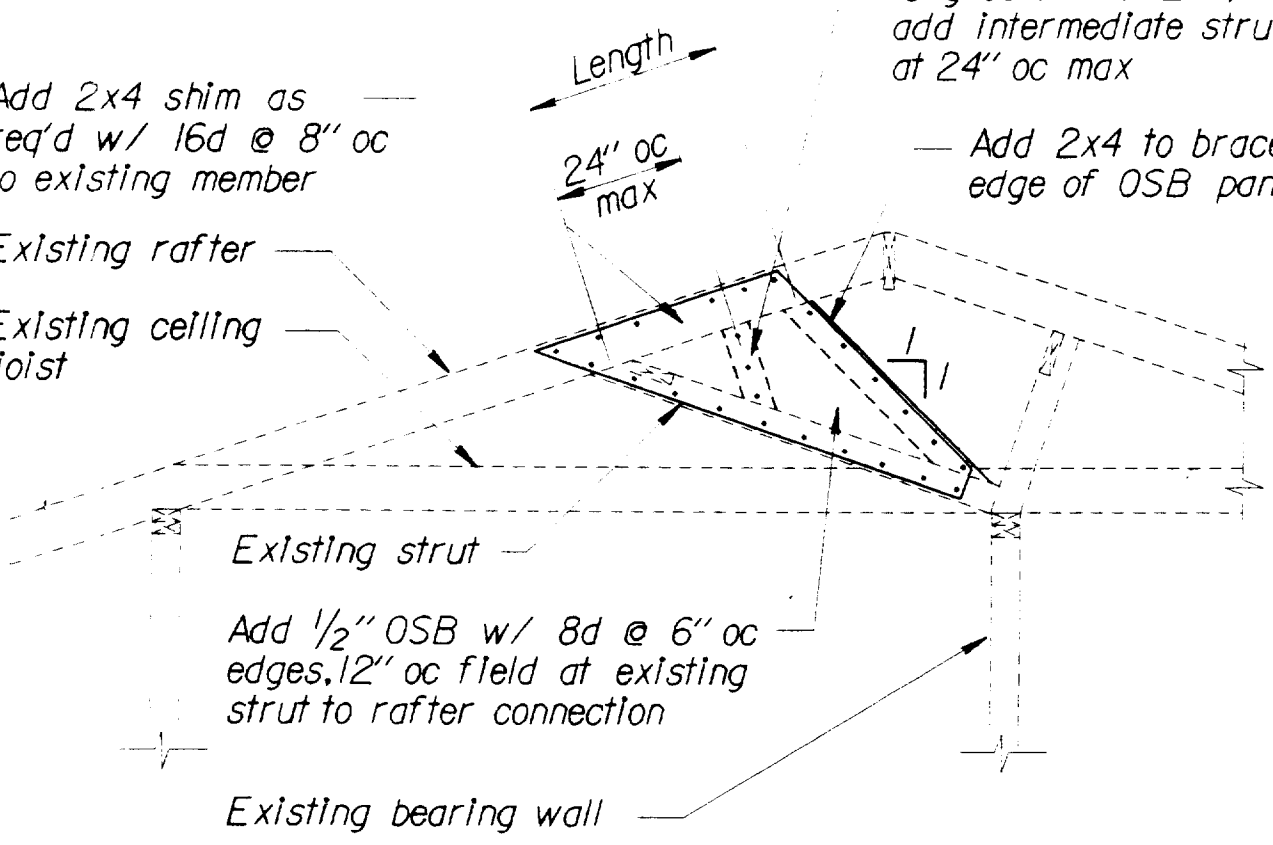
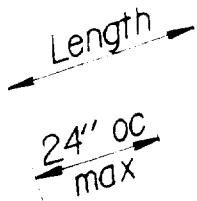
Existing strut

Add 1/2" OSB w/ 8d @ 6" oc edges, 12" oc field at existing strut to rafter connection

Existing bearing wall

If "Length" of panel is greater than 24", add intermediate struts at 24" oc max

Add 2x4 to brace edge of OSB panel



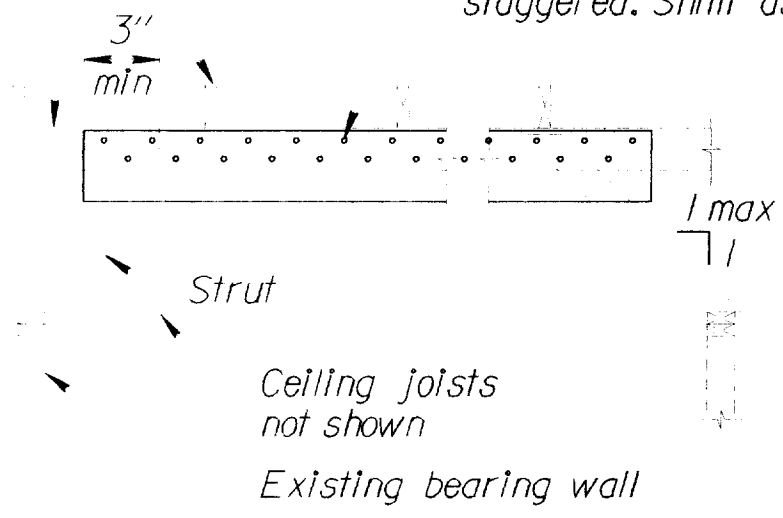
2

GUSSET PLATE DETAIL

Existing rafters

Existing purlin

Purlin. Nail to existing purlin w/ 16d @ 3" oc, staggered. Shim as required.



13

PURLIN DETAIL

7

1" = 1'-0"