

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 9907674
Insp Area: 2

Site Address: 1618 WENTWORTH AV SAC
Parcel No: 017-0161-009

#5

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

CONTRACTOR
ZIMMERMAN ROOFING
3560 RAMONA AV
SACRAMENTO CA 95826

OWNER
WONG JOHN G
5941 WYMORE WY
SACRAMENTO CA 95822

ARCHITECT

Nature of Work: TEAR OFF & 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 557557 Date 7-16-99 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 7-16-99 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 STATE COMP INS FUND Policy Number 713-98-2021 Exp Date 10/01/1999

(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 7-16-99 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.



DEPARTMENT OF
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO
CALIFORNIA

1231 I STREET
ROOM 200
SACRAMENTO, CA
95814-2928

Permit Service
916-264-2619
FAX 916-264-2936

1618 Westworth Ave Unit #5
Sac. Calif 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.

BRAND AND MODEL OF TILE PIONEER WEATHERSHAKE
TILE WEIGHT PER SQUARE 730 lbs
WEIGHT OF ROOF SYSTEM PER SQUARE 760 lbs
TOTAL WEIGHT OF ROOF SYSTEM 760 lb
DOES TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE? YES NO
ROOF SLOPE 4/12

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

Kircher

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

TEL: 916.961.3960
FAX: 916.961.3960

July 8, 1999

Zimmerman Roofing
3560 Ramona Avenue
Sacramento, CA 95826
TEL: 916.454.3667
FAX: 916.455.3784



Attn: Mr Dan Peoples,

re: Job 99159: KIRCHER

Subject: Structural Investigation Report of the Roof for the Residence located at 1618 Wentworth Ave., Unit #5, Sacramento, CA 95831.

As requested by Mr. Dan Peoples, 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 8, 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 1980's vintage.
Occupancy: Residential.
No. of Stories: One.
Dimensions: Approximately 1500 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 and garage areas are framed with pre-engineered wood trusses spaced at 24" on center.

CONCLUSIONS:

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

1/a

No structural
repairs req'd per this
report. Matt P. 7/13/99

Kircher

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

TEL: 916.961.3960
FAX: 916.961.3960

RECOMMENDATIONS:

None.

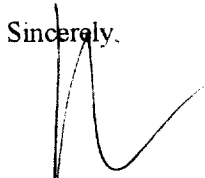
It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls which are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and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

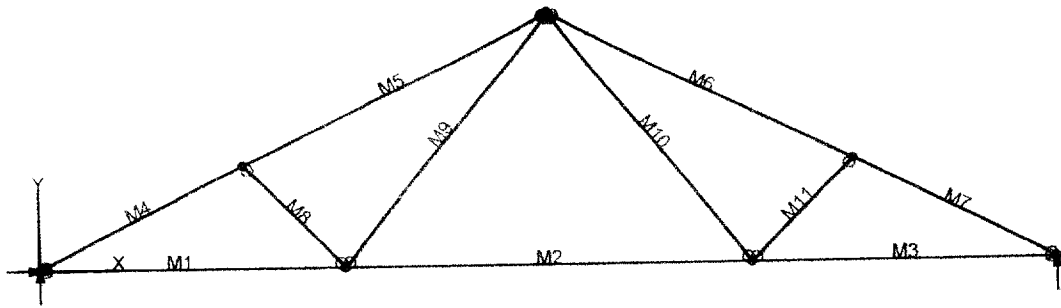
Roof Pitch 6 in 12
Pitch Adjustment Factor 1.12

LOCATION: TOP CHORD

<u>MATERIAL</u>		<u>WEIGHT</u>	
Pioneer Light Weight		7.00	psf
Roofing felt		0.30	psf
1/2" OSB/ plywood		1.50	psf
1x4 skip sht'g		1.09	psf
2x4 truss @ 24" oc		<u>1.28</u>	psf
	Load	11.2	psf
	Roof Pitch Adjustment	<u>1.32</u>	psf
	Total Load	12.5	psf

LOCATION: BOTTOM CHORD

<u>MATERIAL</u>		<u>WEIGHT</u>	
Batt/blown insul		0.50	psf
2x4 truss @ 24" oc		0.64	psf
1/2" Gypboard		<u>2.50</u>	psf
	Load	3.6	psf



VisualAnalysis 3.50.c Report

07/08/99 13:06:01

Project:

File: C:\Program Files\IES\VA35\Untitled.vap

Company: PK Associates Engineers

Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

Nodes

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RZ
N1	0.00	0.00	Yes		Yes		No	
N2	6.00	0.00	No		No			
N3	14.00	0.00	"		"			
N4	20.00	0.00	"		Yes			
N5	4.00	2.00	"		No			
N6	16.00	2.00	"		"			
N7	10.00	5.00	"		"			

Member Elements

Member	Section	Material	Length ft	Weight lbs	Theta deg
M1	SS2x4	Wood	6.00	8.85	0.00
M2	"	"	8.00	11.80	0.00
M3	"	"	6.00	8.85	0.00
M4	"	"	4.47	6.60	0.00
M5	"	"	6.71	9.90	0.00
M6	"	"	6.71	9.90	0.00
M7	"	"	4.47	6.60	0.00
M8	"	"	2.83	4.17	0.00
M9	"	"	6.40	9.45	0.00
M10	"	"	6.40	9.45	0.00
M11	"	"	2.83	4.17	0.00

Section Properties

Category	Section	Ax in ²	Iz in ⁴	Sy+ in ³	Sy- in ³
Wood Sha	SS2x4	5.25	5.36	3.06	3.06

Material Properties

Material	Strength ksi	Elasticity ksi	Poisson	Density lb/ft ³	Therm. /F
Wood	-NA-	1700.00	0.36	40.47	0.00

VisualAnalysis 3.50.c Report

07/08/99 13:06:30

Project:

File: C:\Program Files\IES\VA35\Untitled.vap

Company: PK Associates Engineers

Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

Load Cases

Load Case	Strength	Service	Results
(1)Service Case 1	No	No	None
(2)Service Case 2	"	"	"
(3)Equation Case 1	"	"	1st Ord

Service Load Cases

Load Case	Load Source	Self Weight	Loads
Service Case 1	Dead loads	None	
Service Case 2	Roof Live 1	"	

Load Combination Summary

Equation Case: Equation Case 1

Combination: +1D+1L+1Lr+1R+1W+1S+1E+1H+1F+1TS+1T+1TC+1I+1U+1LE

Contributing Cases & Source

Service Case 1 (Dead loads)

Service Case 2 (Roof Live loads)

Equation Case Combinations

Load Case	Cases	Equation
Equation Case 1	0.00	0.00

Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Off ft	Magnitude
Service Case 1	M1	DY proj.	0.00	6.00	-0.01 K/ft
"	M2	"	0.00	8.00	-0.01 K/ft
"	M3	"	0.00	6.00	-0.01 K/ft
"	M4	"	0.00	4.47	-0.03 K/ft
"	M5	"	0.00	6.71	-0.03 K/ft
"	M6	"	0.00	6.71	-0.03 K/ft
"	M7	"	0.00	4.47	-0.03 K/ft
Service Case 2	M4	"	0.00	4.47	-0.03 K/ft
"	M5	"	0.00	6.71	-0.03 K/ft
"	M6	"	0.00	6.71	-0.03 K/ft
"	M7	"	0.00	4.47	-0.03 K/ft

VisualAnalysis 3.50.c Report

07/08/99 13:10:46

Project:

File: C:\Program Files\IES\VA35\Untitled.vap

Company: PK Associates Engineers

Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

Load Cases

Load Case	Strength Service Results		
(1)Service Case 1	No	No	None
(2)Service Case 2	"	"	"
(3)Equation Case 1	"	"	1st Ord

Member Extreme Results

Member Dy (lc)	Fx (lc)	Fy (lc)	Mz (lc)	fc max (lc)	fc min (lc)	Dx (lc)	
	K	K	K-ft	ksi	ksi	in	in
M1	1.12 (3)	-0.03 (3)	-0.03 (3)	0.21 (3)	0.10 (3)	-0.00 (3)	-0.06 (3)
"	1.12 (3)	0.02 (3)	0.02 (3)	0.33 (3)	0.21 (3)	0.01 (3)	-0.00 (3)
M2	0.64 (3)	-0.03 (3)	-0.03 (3)	0.13 (3)	-0.00 (3)	0.01 (3)	-0.10 (3)
"	0.64 (3)	0.03 (3)	0.03 (3)	0.25 (3)	0.11 (3)	0.02 (3)	-0.06 (3)
M3	1.12 (3)	-0.02 (3)	-0.03 (3)	0.21 (3)	0.10 (3)	0.02 (3)	-0.06 (3)
"	1.12 (3)	0.03 (3)	0.02 (3)	0.33 (3)	0.21 (3)	0.02 (3)	-0.00 (3)
M4	-1.28 (3)	-0.14 (3)	-0.18 (3)	-0.24 (3)	-0.94 (3)	-0.01 (3)	-0.06 (3)
"	-1.18 (3)	0.06 (3)	0.04 (3)	0.49 (3)	-0.23 (3)	-0.00 (3)	-0.00 (3)
M5	-1.07 (3)	-0.13 (3)	-0.18 (3)	-0.18 (3)	-0.92 (3)	-0.02 (3)	-0.19 (3)
"	-0.92 (3)	0.18 (3)	0.17 (3)	0.51 (3)	-0.18 (3)	-0.01 (3)	-0.06 (3)
M6	-1.07 (3)	-0.18 (3)	-0.18 (3)	-0.18 (3)	-0.92 (3)	0.03 (3)	-0.18 (3)
"	-0.92 (3)	0.13 (3)	0.17 (3)	0.51 (3)	-0.18 (3)	0.04 (3)	-0.05 (3)
M7	-1.28 (3)	-0.06 (3)	-0.18 (3)	-0.24 (3)	-0.94 (3)	0.02 (3)	-0.05 (3)
"	-1.18 (3)	0.14 (3)	0.04 (3)	0.49 (3)	-0.23 (3)	0.03 (3)	0.01 (3)
M8	-0.34 (3)	0.00 (3)	0.00 (3)	-0.06 (3)	-0.06 (3)	0.05 (3)	-0.04 (3)
"	-0.34 (3)	0.00 (3)	0.00 (3)	-0.06 (3)	-0.06 (3)	0.05 (3)	-0.03 (3)
M9	0.38 (3)	0.00 (3)	0.00 (3)	0.07 (3)	0.07 (3)	-0.04 (3)	-0.05 (3)
"	0.38 (3)	0.00 (3)	0.00 (3)	0.07 (3)	0.07 (3)	-0.04 (3)	-0.05 (3)
M10	0.38 (3)	-0.00 (3)	-0.00 (3)	0.07 (3)	0.07 (3)	0.06 (3)	-0.03 (3)
"	0.38 (3)	-0.00 (3)	0.00 (3)	0.07 (3)	0.07 (3)	0.06 (3)	-0.03 (3)

3)							
M11	-0.34(3)	-0.00(3)	-0.00(3)	-0.06(3)	-0.06(3)	-0.03(3)	-0.06(
3)							
"	-0.34(3)	-0.00(3)	0.00(3)	-0.06(3)	-0.06(3)	-0.03(3)	-0.04(
3)							

BENDING & COMP: TRUSS 1; MEMBER 4

Buckling Factor, CT is neglected due to small contribution

Grading:

2x4, 6 or 8

Doug-fir larch: No. 2

Assumptions:

Lateral support at points of bearing

SPS or gypboard attached to compression face

Maximum center-center spacing = 24"

Width, b	1.5 inches
Depth, d	3.5 inches
Length	4.47 feet
Max Axial Comp, C	1280 lbs
Max Reaction, R	140 lbs
Max Moment, M	180 ft-lbs
Max LL Deflection	0.04 inches
Max TL Deflection	0.06 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
fc =	244 psi
Fce =	3193 psi
Fc* =	1094 psi
F'c =	1002 psi
fb =	59 psi
F'b =	1258 psi
Shear D/C ratio	0.34 < 1.0, Member OK
Interaction equation:	
$(fc/F'c)^2 +$	
$fb / (F'b(1-fc/Fce)) =$	0.11 < 1.0, Member OK
Live Load defl ratio	0.18 < 1.0, Member OK
Total Load defl ratio	0.20 < 1.0, Member OK