

**CITY OF SACRAMENTO**

1231 I Street, Sacramento, CA 95814

Permit No: 0510310

Insp Area: 4

Thos Bros: 277F6

Site Address: 221 CLEVELAND AV SAC

Parcel No: 274-0141-021

Sub-Type: RES

Housing (Y/N): N

**CONTRACTOR**  
OWNER BUILDER

**OWNER**  
CONSTANTINO GUILLERMO  
221 CLEVELAND AV  
SACRAMENTO, CA 95833

**ARCHITECT**

Nature of Work: T/O, REROOF 17SQ LIGHTWEIGHT TILE HOUSE

**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 \_\_\_\_\_ License Number 0 \_\_\_\_\_ Date \_\_\_\_\_ Contractor 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 Professions 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 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 7-13-05 Owner Signature Guillermo Constantino

**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 7-13-05 Applicant/Agent Signature Guillermo Constantino

**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 \_\_\_\_\_ 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 7-13-05 Applicant Signature Guillermo Constantino

**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.

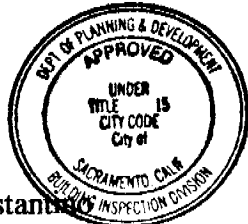
**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**

0510310 221 Cleveland Av

# ∞ Infinity Engineering, L.P. ∞

9198 Greenback Lane, Suite 200 • Orangevale, CA 95662 • (916) 987-0839 • Fax: (916) 987-7669

July 7, 2005

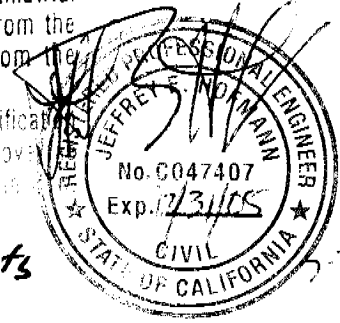


Guillermo Constantino  
221 Cleveland Ave  
Sacramento, CA 95833

*Jim R - 7/13/05*

This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.

The approval of this plan and specification SHALL NOT be held to permit or approval violation of any City Ordinance or State



*Site verify max 6.0 psf, all structural elements DO NOT COVER without inspections*

RE: Roof framing inspection for placement of Light Weight Tile (6.0 psf) on your existing roof framing at 221 Cleveland Ave, Sacramento, CA.  
This Inspection and report is Our Job#05-338.

**MICROFILM AT FINAL**

**Purpose of Inspection:**

As requested, on July 6, 2005, I performed a visual inspection of the existing roof framing at the aforementioned residence. The purpose of the inspection was to determine if the existing roof framing was structurally acceptable for the placement of a light weight tile (6.0 psf max. installed weight) to replace the existing composition shingles.

**Observations & Comments:**

The existing residence is a 1 story single family dwelling with the standard living areas and an attached garage. Attached is a sketch of the roof plan showing the dimensions of the exterior walls (Attachment 1 of 3).

In general the existing roof framing on the structure was in good condition and consisted of comp shingles over 1x solid sheathing over 2x4 #2 DF rafters at 24" c.c.. The 2x4 rafters have a maximum horizontal span of 6'-4".

There was some existing deflection in the roof framing over the garage and a small amount of deflection in the rafters to the right of the garage house wall.

Attached calculations (see Attachments 2, and 3 of 3) show the new dead load to the roof and check the allowable horizontal span of the existing 2x4 rafters, and the reinforcement of the existing bracing for the rafters. The 2x4 top chords and rafters have a maximum allowable horizontal span of 8'. Thus, some reinforcement of the bracing members for the rafters over the garage and a portion of the house will be necessary.

**CITY COPY**

**Structural Recommendations:**

- 1) Remove all layers of existing roof covering - leaving the existing 1x solid sheathing.
- 2) At the house portion - The existing 2x6 purlins at the mid point of the front and back

PAID  
CITY OF SACRAMENTO  
JUL 13 2005  
NORTH PERMITS CENTER

rafter spans need some reinforcement.

– Add an additional 2x6 #2 DF to each of the two existing 2x6 purlins. This is to occur on both the front and back purlins, for the 12' (approximately - it is to extend to the first brace) to the right of the garage house/wall. The new 2x6's are to be continuous and are to be nailed to the existing 2x6 purlin with 16d sinkers @ 6" c.c. - staggered. The location of this reinforcement is shown on Attachment 1.

- 3) At the roof over the garage – The existing 2x12 purlins at the front and back must be reinforced and collar ties must be added.
- Add a 1-3/4"x14" 1.8E Micro-Lam to each of the existing 2x12 purlins. The Micro-Lam is to be continuous for the full length of the existing 2x12 and is to be braced to the wall with a 2x4 (min). The Micro-Lam is to be nailed to the existing 2x12 purlin with (2) rows of 16d Sinkers at 12" c.c.. Please see sketch on Attachment 1.
  - Add 2x6 collar ties at 24" c.c. with (6) 16d Sinkers to the rafter at each end. The 2x6 collar tie is to be located just over the location on the rafters where the purlins are providing support. Please see sketch on Attachment 1.

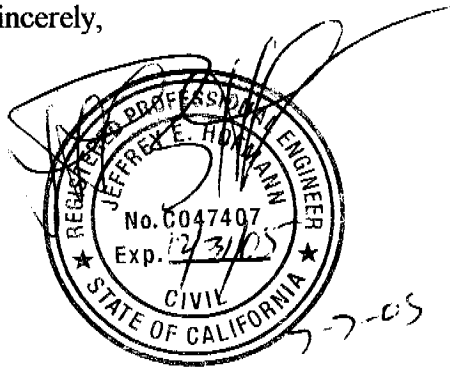
**Conclusion:**

Assuming that the aforementioned recommendations are completed, it is my professional opinion that the placement of a light weight tile (6.0 psf max. installed weight) over the existing 1x solid roof sheathing, and existing framing (reinforced where necessary) is structurally acceptable.

Please note that additional settlement of the roof framing and cosmetic cracking in the ceiling and/or walls may occur due to the work being performed on the roof and the additional weight of the new tile roof covering. It is the owners responsibility to determine if the possibility of these occurring is acceptable to them.

If you have any questions or need further clarification on these matters please feel free to contact me at (916) 987-0839.

Sincerely,



Jeffrey E. Hofmann, P.E.  
President of General Partner, Hofmann Management Inc.

JCH

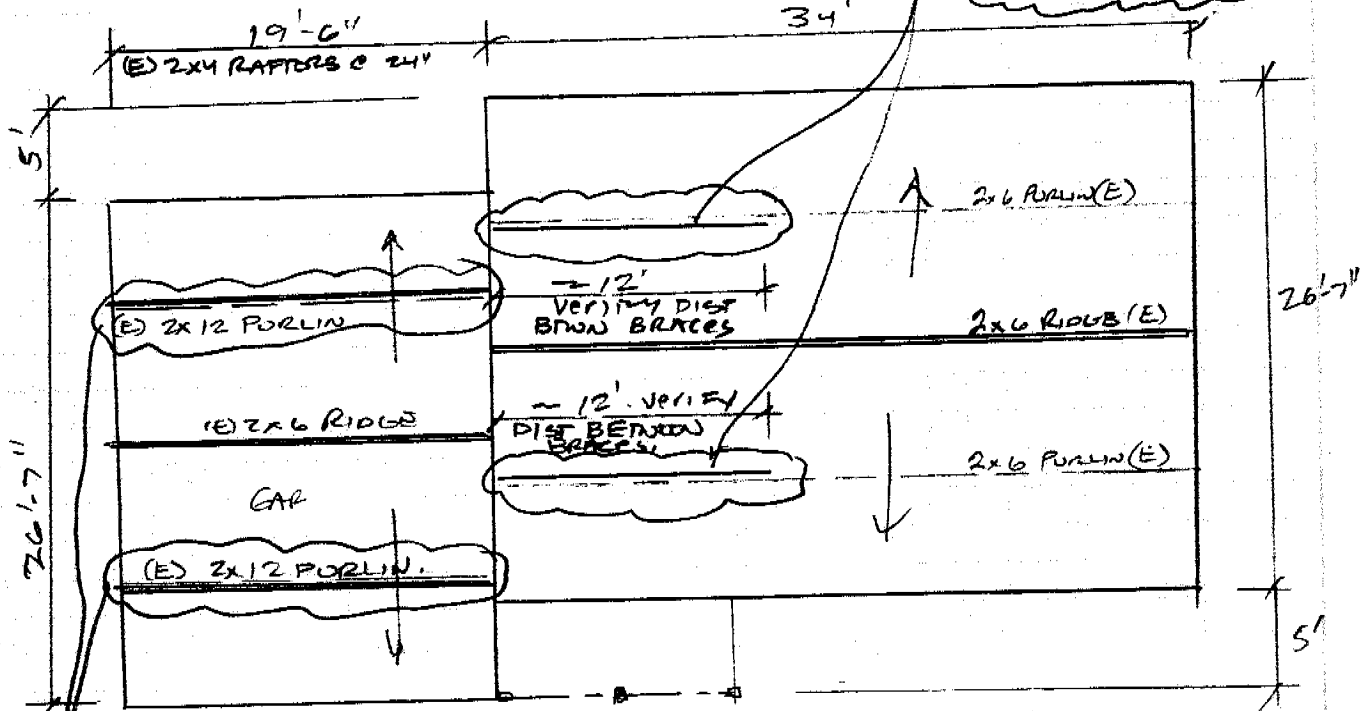
2/2/05

221 CLEVELAND AVE  
CONSTRUCTION ROOF

ATTACH 1/3

05-338

ADD NEW 2x6 TO  
EXIST 2x6 PURLIN  
FOR 1ST SPAN BY  
GARAGE - APPROX  
14' - NAIL TO EXISTING  
W/ 16d @ 6" CC



50 SHEETS  
22-101  
22-102  
22-103  
22-104  
22-105

ADD NEW 1 3/4 X 14" L.B.E MICROLAM  
TO EXIST EXISTING 2x12 PURLIN,  
- NAIL TO (E) 2x12 PURLIN W/  
2 ROWS OF 16d SINKERS @  
12" CC  
- MICROLAM TO BE SUPPORTED  
BY SUD/POST IN WALL @  
EXIST END

SKETCH OF ROOF PLAN  
(2" = 10') 221 CLEVELAND AVE

(E) ROOF

COMP OVER 1X SOLID SHG  
OVER 2x4 @ 24" CC W/  
6'-8" MAX SPAN

(N) ROOF

LT WT TILE (60 PSF) OVER  
EXISTING 1X SOLID SHG  
+ 2x4'S @ 24" CC

(E) RAFTERS  
2 ROWS OF  
16d @ 12" CC

EXISTING  
2x12

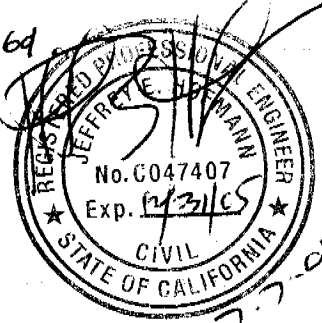
NEW  
1 3/4 X 14" L.B.E  
MICROLAM

ADD 2x6 COLLAR TIE  
@ 24" CC W/  
(6) 16d SINKERS @  
EA END

EXISTING  
2x4

(6) 16d

NEW 2x6



INFINITY ENGINEERING, L.P.  
9198 GREENBACK LANE, #200  
ORANGEVALE, CA 95662

JETH

7/7/05

REEROOF @  
CONSTRADO-221 CLOVER RD. +

05-338

ATTACH 2/3

DETERMINE NEW DEAD LOAD TO TRUSS TOP CHORDS/RATFA

10.0 PSF = TOTAL DEAD LOAD

6.0 PSF = LIGHT WT TILE, (6 PSF INSTALLED WT)

0.3 PSF = 30# FELT

2.5 PSF = (E) SOLID IX SHTG

0.65 PSF = 2x4 (TOP CHORD) @ 24" CC

0.55 PSF = MISC <sup>OR</sup> RATFA

L, WT OF NEW ROOF CONFIGURATION IS W/IN  
NORMAL DESIGN WEIGHT FOR ROOF  
- EXISTING FRAMING IS ACCEPTABLE

CHECK MAX SPAN OF (E) 2x4 TRUSS TOP CHORD

NOTE: HOUSE BUILT PRIOR TO 1994 UBC. THUS OLDER  
WOOD ALLOWABLE STRESSES APPLICABLE.

#2DF →  $F_v = 95 \text{ PSI}$       $f_b = 1450 \text{ PSI (RCP)}$       $E = 1.7 \times 10^6 \text{ PSI}$

2x4 →  $A = 5.25 \text{ in}^2$       $S_x = 3.06 \text{ in}^3$       $I = 5.36 \text{ in}^4$

ACTUAL MAX SPAN OF TOP CHORD =

$W_D = 2'(16+10 \text{ PSF}) = 52 \text{ PLF}$

SHEAR  $V_{ALL} = \frac{5.25 \text{ in}^2 (95) (1.25)}{1.5} = 416 \#$

$l_{MAX} = \frac{2(416)}{2'(16+10)} = 16' = l_{MAX(SHR)}$

BENDING  $M_{ALL} = \frac{3.06 \text{ in}^3 (1450 \text{ PSI}) (1.25)}{12} = 462 \text{ lbf-ft}$

$l_{MAX} = \sqrt{\frac{8(462)}{52}} = 8'-5" = l_{MAX(BEND)}$

DEFLECTION:  $\Delta_{ALL} = \frac{L}{180}$

$\Delta_{ALL} = \frac{L}{240}$  (NO CEILING ATTACH)

(TOTAL LOAD CONTROL)

$\Delta_{ALL} = \frac{L(12)}{180} = \frac{5(52)(L)^3(1729)}{384(1.7 \times 10^6)(5.36)}$

$l_{MAX} = \sqrt[3]{\frac{12(384)(1.7 \times 10^6)(5.36)}{180(5)(52)(1729)}} = 9.03' = l_{MAX(DEF)}$

∴ ALLOWABLE MAX SPAN OF 8' EXCEEDS MAXIMUM ACTUAL SPAN OF <sub>OR MEMB</sub>

No. 937 811E  
Engineer's Computation Pad

STAEDTLER

INFINITY ENGINEERING, L.P.  
9198 GREENBACK LANE, #200  
ORANGEVALE, CA 95662

TEXT

7/7/05

221 CLEVELAND AVE  
CONSTANTINO Re-ROOF

05-338

ATTACH 3/3

CHECK (E) 2x12 PURLINS IN GARAGE

SPAN = 19.5'

$W_{PL} = \frac{19.5'}{2} (16 + 10) = 250 \text{ PLF}$   $W_{LL} = 150$

$Req'd A = \frac{1.5(2437 - 250)}{95(1.25)} = 27.6 \text{ in}^2$

$Req'd S = \frac{11883(10)}{1000(1.25)} = 114 \text{ in}^3$

$Req'd F_{PL} = \frac{5(250)(19.5)^4(1729)}{384(116 \times 10^6)(1.3)} = 391 \text{ in}^4$

$Req'd I_{LL} = (391) \left(\frac{1.3}{1.975}\right) \left(\frac{196}{250}\right) = 325 \text{ in}^4$

NEEDS (4) 2x12 HIDE w/ MIN OF 2 BRG ON WALL EACH END

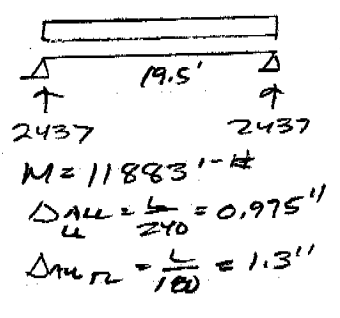
ALT: CHECK ADDITION OF 1.8E MICROLAM.

$Req'd A = \frac{1.5(2437 - 250)}{260(1.25)} = 12.6 \text{ in}^2$

$Req'd S = \frac{12(11883)}{2600(1.25)} = 43.8 \text{ in}^3$

$Req'd I = 391 \left(\frac{1.6}{7.8}\right) = 347 \text{ in}^4$

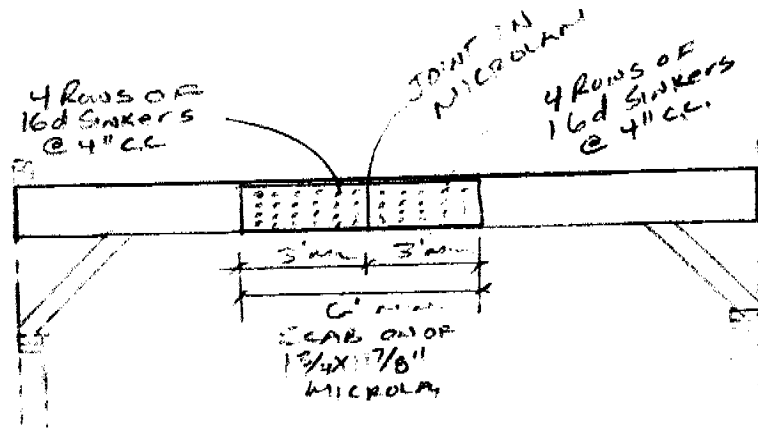
ADD SINGLE 1 3/4 x 14" 1.8E MICROLAM TO EA EXISTING 2x12 PURLIN OVER THE GARAGE - EACH END TO BE SUPPORTED ON WALL - NAIL TO EXISTING 2x12 w/ (2) 16d @ 12" OC



22 SHEETS  
22 SHEETS  
22 SHEETS

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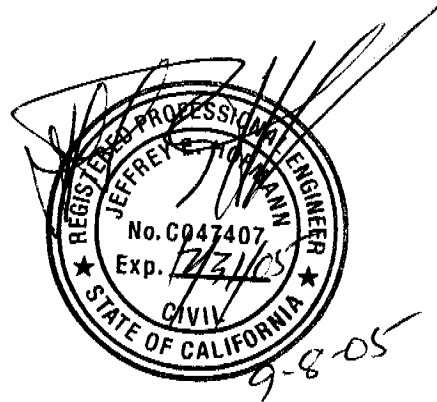
0510310



SPLICE @ FURLIN OVER GARAGE

JOB: CONSTANTINO RE-ROOF  
221 CLEVELAND AVE  
SACRAMENTO, CA

JOB # 05-334  
DATE: 9-8-05  
BY: JEH



INFINITY ENGINEERING, L.P.  
9198 GREENBACK LANE, #200  
ORANGEVALE, CA 95662

09/08/2005  
2:04:46PM

### Inspection Request Work Sheet City of Sacramento

**4 R**  
Bldg

Listed on Calendar:  
INSP\_GEN

**221 CLEVELAND AV**

Location:

**0510310**  
**ISSUED**  
on 07/13/2005  
**Requested for:**  
**09/09/2005**  
**MORNING**

**A/P/D INFORMATION**

Type of Permit: <b>BLD_MINR</b>	Sub-Type: <b>RES</b>	Map/Grid: 277F6
Activity Code: R1	Occupancy: R3	Fed Code: <b>1A</b>
Valuation: <b>\$ 5,500.00</b>	Construction Type:	Faxed Permit?: No    FAXBACK Permit?: No
Parcel #: 2740141021		Applied Date: 07/13/2005
Owner: CONSTANTINO GUILLERMO		Phone: 641-2565
Applicant: CONSTANTINO GUILLERMO		Phone: 641-2565
Contractor: OWNER BUILDER		Phone:
Nature of Work: T/O, REROOF 17SQ LIGHTWEIGHT TILE HOUSE		

Notices: 07/13/2005 MSHEFFIEL IN-PROGRESS INSPECTION REQUIRED (added by script)  
D  
07/13/2005 MSHEFFIEL WALK-IN PERMIT - PAPERLESS (added by script)  
D

Disciplines:	BLDG	MECH	PLMG	ELEC	SITE	FIRE	Flood Cert Required?
	Y	N	N	N			

**REQUEST INFORMATION**

Request Entered By: **AWELLINGTON**    Date/Time Request Entered: **09/08/2005 at 1:56PM**  
Requestor: **JORGE**    Phone 1: 916-879-6312    Phone 2:  
Request Notes:    Inspector Initials:

Comments: \_\_\_\_\_ Action: \_\_\_\_\_ **Bldg-Roof In Prog 83**

09/01/2005 CN SEB 19 Bldg - Frame  
9/9/05 B-89/AP JCS

1. At garage microlams are not continuous + also supported at each end with 2x4 over walls. 2. Do not brace new 2"x6" purlin down to joist that are not over a wall. 3. Change out water heater vent to double wall type B vent through roof + raise to a min 1' above upper roof. 4. Note when roofing at back AC area with angle iron platform area requires roofing other than tile in that area.

