

**CITY OF SACRAMENTO**  
1231 I Street, Sacramento, CA 95814

**Permit No: 0402410**

**Insp Area: 2**  
**Thos Bros: 358A1**

**Site Address: 6 HALLWOOD CT SAC**  
Parcel No: 117-1060-067 **FAMILY ROOM**

**Sub-Type: ASFR**  
**Housing (Y/N): N**

**CONTRACTOR**  
MACKARE JONES DBA AARON CONSTRUCTION  
PO BOX 5093  
SACRAMENTO CA 95817

**OWNER**  
6 HALLWOOD CT  
SACRAMENTO CA 95823

**ARCHITECT**  
CHANDRA YASH

**Nature of Work: Add 420sf as lvgrm & porch of 85sf**

**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 B License Number 511780 Date 8/20/04 Contractor Signature Mackare Jones

**OWNER-BUILDER DECLARATION:** I hereby affirm under penalty of perjury that I am exempt from the contractor's 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: PAID

Date \_\_\_\_\_ Owner Signature CITY OF SACRAMENTO

**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 Mackare Jones Applicant/Agent Signature 8/20/2004

**WORKER'S COMPENSATION DECLARATION:** I hereby affirm under penalty of perjury one of the following declarations:

MJ 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.

MJ 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 8/20/2004 Applicant Signature Mackare Jones

**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.**

City of Sacramento Planning Division  
**PLANNING REVIEW FOR BUILDING PERMIT SUBMITTAL**

ADDRESS: 6 Hallwood Court	APN: 117-1060-067
DRPB AREA / PUD / SPD: None	ZONING: R-1
EXISTING LAND USE: Single family, one-story home with approximately 1154 square feet	
PROPOSED USE: Addition of 529 square feet of living space.	
<b>PLANNING STAFF WILL CHECK ONE OR MORE OF THE ITEMS BELOW:</b>	
<input type="checkbox"/>	Planning review is NOT required.
<input type="checkbox"/>	Use is NOT allowed; applicant CANNOT submit for plan check.
<input type="checkbox"/>	Requires APPLICATION(s):    PC            ZA            IR            ER            DR            PB Required Planning application must be submitted <i>before</i> project can be submitted for plan check.
<input type="checkbox"/>	<b>Application(s) IN PROGRESS:</b> Applicant may submit for concurrent building permit plan check, at applicant's risk. Building Division must check with Planning staff and/or SITE before issuing building permit.
<input type="checkbox"/>	<b>Application(s) COMPLETED:</b> Building permit must conform to approved plans and comply with all conditions of approval. Do NOT issue building permit prior to end of 10 day appeal period.
<input checked="" type="checkbox"/>	<b>Plans may be submitted for plan check.</b> Plan checker(s) shall confirm compliance with Zoning Ordinance requirements and all applicable development standards <i>prior to issuance</i> of building permit.
<input checked="" type="checkbox"/>	Meets setback & lot coverage requirements as shown on site plan provided.
<input checked="" type="checkbox"/>	Plans to be submitted have been stamped/signed by Planning counter staff.
<input type="checkbox"/>	<b>Route to SITE</b> for plan check and inspection.
<input type="checkbox"/>	Preliminary review ONLY; the information on this form <b>must be reviewed again and confirmed</b> at the time of building permit submittal.
COMMENTS: Addition of 529 sf to front of home. Lot coverage is within acceptable limits (2206 sf for home on 12,648 sf lot – Approximately 17% lot coverage.) Front, rear, and side setbacks are not affected. No other work to be completed without Planning approval.	
DATE: February 18, 2004	BY: Evan Compton

OFFICE COPY

Department of Planning and Development  
Building Inspection Division  
Grading and Erosion Control Questionnaire

To be completed for all residential new construction and additions

PART I (To be completed by applicant)

Site Address 6 HALLWOOD COURT, SACRAMENTO, CA. A.P.N. 117-1060-067

Applicant Information

Name MACKARE JONES  
Address P.O. BOX 47  
SACRAMENTO, CA.  
Phone 916 456-5515

Project Information (Check One)

Single Family Dwelling  X  
Duplex   
Triplex   
Deep Lot Development

PART II (To be completed by the applicant when the project is not a part of a larger subdivision)

Are there existing structures on site?   
Does the site front on a paved road?   
Is the site higher than the crown of adjacent road?   
Is the proposed building site higher than the back of the sidewalk or curb?  
Describe existing frontage improvements along road.  
 Ditch \*  Curb and Gutter  
The direction of drainage on this site is:  
 Front to Rear \*  Rear to Front  
Does an adjacent site drain across this parcel?  
Does this site have an existing low area or drainage swale?  
Will construction require cut or fill on site? (\* >50FT3 or >2FT)  
- How much cut? \_\_\_\_\_ Yards \_\_\_\_\_ Depth  
- How much fill? \_\_\_\_\_ Yards \_\_\_\_\_ Depth  
Has building site been previously been filled?   
Will existing drainage be re-routed?   
Do you plan to construct or modify culverts or drainage ditches?

CITY  N  
 Y NORTH  N \*  
 Y JUL  CENTER  
 Y JUL 09 2004  
**RECEIVED**  
SACRAMENTO NORTH PERMIT CENTER

Print Name MACKARE JONES Title CONTRACTOR  
Signature Mackare Jones Date 7/7/2004  
Owner or Contractor

PART III (To be completed by staff)

What is the acreage of the parcel to be built on? \_\_\_\_\_ Acres.  
If greater than 1/2 acre has an approved erosion and sediment control plan been provided?  Y  N  
If greater than 5 acres has the applicant provided a copy of the State General Permit NOI and the SWPPP?  Y  N  
Is the parcel to be built on part of a larger subdivision?  Y  N  
Subdivision Name: \_\_\_\_\_  
If yes has an approved erosion and sediment control plan been provided?  Y  N  
If the original subdivision is greater than 5 acres has the applicant provided a copy of the State General Permit NOI and the SWPPP?  Y  N  
Is grading and drainage approval required prior to permit issuance?  Y  N  
Approved by: CJG Date: 8-20-04  
Building permit #: 040240

White Copy - Permit Jacket  
Yellow - Utilities  
Pink - Bldg. Div.

**Certification of Compliance**  
School District Development

**Part I - To be completed by the APPLICANT**

Owner's Name/Address YASH CHANDRA, 6 HALLWOOD CT, SACTO. 95823  
Project Address 6 HALLWOOD CT.  
Parcel Number 117-1060-067 Lot No. \_\_\_\_\_  
Subdivision Name CHANDRA ROOM ADDITION No. of Units ONE  
Applicant's Signature \_\_\_\_\_ Title \_\_\_\_\_  
Phone No. \_\_\_\_\_ Date \_\_\_\_\_

**Notice to Applicant:** Pursuant to Government Code Section 66020(d), this will serve to notify you that the 90-day approval period in which you may protest the fees or other payment identified above will begin to run on the date in which the building or installation permit for this project is issued or on which they are paid to the district(s) or to another public entity authorized to collect them on behalf of the district(s), whichever is earlier.

**Part II - To be completed by the BUILDING DEPARTMENT**

Plan Identification Number 0402410  
Building Type (check one)  Residential  Apartment/Condominium  Commercial/Industrial  
Square Feet of Chargeable Building Area 420 SQ FT  
Signature/Title Cary Boyd Date 6-7-04

**Part III - To be completed by the SCHOOL DISTRICT**

School District ELK GROVE Certificate No. 43905  
 Exempt Comments Exempt under 270 FT  
Residential/Apartment/etc. \_\_\_\_\_ Square ft. x \$ \_\_\_\_\_ = \$ \_\_\_\_\_  
Commercial/Industrial \_\_\_\_\_ Square ft. x \$ \_\_\_\_\_ = \$ \_\_\_\_\_  
Total fees collected..... = \$ \_\_\_\_\_

This certification covers only the amount of square footage indicated above. Any additions or corrections to the square footage for this project will require an amendment to the Certificate of Compliance.

As the authorized school official, I hereby certify that the requirements of Government Code Section 65996 and any other authorized requirements have been complied with by the above signed applicant.

Signature [Signature] Date \_\_\_\_\_

**RECEIVED**  
**JUL 09 2004**  
FACILITIES PLANNING  
ELK GROVE UNIFIED SCHOOL DISTRICT

White & Canary - School District • Pink - Building Department • Goldenrod - Applicant



**CITY OF SACRAMENTO  
BUILDING INSPECTION  
DIVISION**

**PERMIT OFFICES**  
Downtown (916) 264-7619  
1231 I St., Rm. 200, Sacramento 95814  
Natomas Center (916) 808-2534  
2101 ARENA BL., Sacramento 95834  
<http://www.sacto.org>

**RESIDENTIAL PLAN REVIEW  
2001 CBC Adopted Codes  
Effective November 1<sup>st</sup>, 2002**

**PROJECT ADDRESS  
& DESCRIPTION**

**6 HALLWOOD CT ADDITION**

**PERMIT**

**No. 0402410**

These sheets, when attached to a set of plans, become part of those plans and must remain attached thereto. The approval of this plan and the specifications shall not be held to permit or approve the violation of any City ordinance or State or Federal law. (Note: Authorized agent must provide a letter from Owner verifying Authorization.) (The code requirements circled do not limit the code requirements for this project.)

I have read and will comply with the items in this document and as marked on the plans.

*Markus Jones*

Date 7/7/2004

Signature of:  Owner  Authorized Agent  Contractor  Architect/Engineer

**BUILDING CODE REQUIREMENTS**

- B-1 Smoke detector location within dwelling units.** In dwelling units, a detector shall be installed in each sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. When the dwelling unit has more than one story and in dwellings with basements, a detector shall be installed on each story and in the basement. In dwelling units where a story or basement is split into two or more levels, the smoke detector shall be installed on the upper level except that, when the lower level contains a sleeping area, a detector shall be installed on each level. When sleeping rooms are on an upper level, the detector shall be placed at the ceiling of the upper level in close proximity to the stairway. In dwelling units where the ceiling height of a room open to the hallway serving the bedrooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room. Detectors shall sound an alarm audible in all sleeping areas of the dwelling unit in which they are located. In new construction, required smoke detectors shall receive their primary power from a commercial source and have a battery back up. 2001 CBC, Section 310.9.1.
- B-2** When alteration, repairs, or additions having a value in excess of \$1,000 are made, provide an approved smoke detector to protect existing sleeping rooms. The detector may be battery operated as per 2001 CBC, Section 310.9.1.2.  
**Exception:** Repairs to the exterior surfaces of a Group R occupancy are exempt from the requirements of this section.
- B-3 Emergency escape and rescue.** Basements in dwelling units and every sleeping room below the fourth story shall have at least one operable window or door approved for emergency escape or rescue that shall open directly into a public street, public way, yard, or exit court. Escape or rescue windows shall have a minimum net clear openable area of 5.7 square feet / 821 SQ. inches. The minimum net clear openable height dimension shall be 24 inches. The minimum net clear openable width dimension shall be 20 inches. Emergency escape or rescue windows shall have a finished sill height not more than 4 inches above the floor. 2001 CBC, Section 310.4.
- B-4 All Group U occupancies attached to Group R, Division 3 occupancies shall be separated by materials approved for one-hour fire-resistive construction.** The separation may be limited to the garage side only and requires a self-closing, tight fitting solid wood door 1 3/8 inches in thickness or a self-closing, tight fitting door having a fire protection rating of not less than 20 minutes. CBC, Section 302.4. **Exception:** 3. **Note:** All members supporting such separation shall be equivalent fire-resistive construction as per 2001 UBC, Section 302. All electrical outlet boxes on opposite sides of the wall shall be separated by a horizontal distance on not less than 24 inches per 2001 CBC 709.7, Exception 1.

BID0001

CITY OF SACRAMENTO  
NATOMAS CENTER  
RECEIVED  
OFFICE COPY



**CITY OF SACRAMENTO**  
 PLANNING & BUILDING DEPARTMENT  
 BUILDING DIVISION  
 www.cityofsacramento.org

Help Line: 1-916-264-5656 OR 1-866-EZ-PERMIT  
 Inspection: 1-916-808-4677



Downtown Permit Center 1-916-264-8807  
 1231 I Street, Suite 200, Sacramento, CA 95814

North Permit Center 1-916-808-2354  
 2101 Arena Blvd., Suite 200, Sacramento, CA 95834

**SPECIAL PACKAGE D FOR RESIDENTIAL ADDITIONS IN CLIMATE ZONE 12**

Certificate of Compliance CF-1R Addition, 100 to 999 Square Feet with [99-SF Exemptions & Requirements].

Project Title ROOM ADDITION - CHANDRA RESIDENCE Date 7/7/2004  
 Project Address 6 HALLWOOD COURT, SACRAMENTO  
 Total Floor Area Addition: 420 F12 Total Glazing Area Addition 60 F12 Floor Area X 16% = Total allowed  
 (420 X 16% = 67.20)

Requirements that apply to new area floor plan maximum glass allowance formula

A. 45 Sq. Ft. B. 0 Sq. Ft. C. 45 Sq. Ft. D. .11 % Note: Using package D. maximum glass allowed is 16%  
 Total Glass in addition removed glass (addition area) Subtract B from A; enter amount in C Divide C by floor area of addition.

Module I (R-19 Ceiling...R-13 Wall...R-13 Floor)					
99-SF or Less	50%MaxGlazing No Credit for removed.	0.75 - U-Value	SHGC 0.40 Minimum	No CF-4R, No HERS Testing No Radiant Barrier required.	See, *, **, exceptions
Module II Standard Package-D (R-38 Ceiling...R-13 Wall...R-19 Floor)					
100-999 SF	16% Max Glazing See A, B, C, D above	0.65-U-Value 0.75 < 500 SF	SHGC 0.40 Minimum	Radiant Barrier In Addn Only.	see * * exceptions
Module III Alternate Package D (R-38 Ceiling...R-19 2x6" Wall...R-13 with R4.61 Rigid in a 2x4" Wall...R-19 Floor)					
100-999 SF	16% Max Glazing See A,B,C,D above	0.40-U-Value	SHGC 0.35 Minimum	Min 11 SEER when upgraded or added. Radiant Barrier addition only. See * & **.	AFUE 0.78 min. No CF-R4 required. No Duct, TXV, & HERS Test **New 12 SEER
Module IV Standard Package D or Computer Performance Compliance					
Floor Plans in excess of 999-SF require Performance Compliance of both existing and Addition combined, achieved by an approved Computer Program or, both Existing & Addition Designed and constructed per Module II Package-D					

Both Module II & III may use existing HVAC systems when adequate. Should a 12 SEER be installed in either Module then No HERS/TXV tests required. See Exceptions below.

[All duct R-value 4.2 Min.] [Pre-1978 AFUE.68=0K] [\* -New HVAC requires HERS Test 11 SEER Min.] [\*\*-New 12 SEER A/C & No HERS/TXV or CF-R4]

[\*\*\* No duct work, No HERS required] RB= Radiant barrier underside of roof & Gable walls, shiny side down. Duct Sealed= Ducts certified 6% leakage max. U= U-Value. TXV= Field verified by HERS rater. SEER= A/C Seasonal Energy Efficiency Ratio. SHGC= Window Solar Heat Gain Coefficient. AFUE= Annual Fuel Utilization Efficiency. (See \*\*\*\* Law & \*\*\*\*\* for wall frame and vaulted ceiling requirements.)

Questionnaire: (By City of Sacramento Staff

FIELD VERIFY: MODULE SELECTED:

1. What year was the home built? \_\_\_\_\_
2. What is SEER rating of current Air Conditioner? \_\_\_\_\_
3. What is current Furnace AFUE? \_\_\_\_\_
4. Will Furnace or A/C be upgraded? Yes/No? \_\_\_\_\_
5. New water heater (>50 gal. Exempt)? Yes/No? \_\_\_\_\_
6. Note: No duct assembly allowed in wall cavity chases, New Furnace or HVAC requires new Setback thermostats each Zone or unit. Split zones require 2. 2001 Title 24 Residential Energy manual sec 3.1-3.8; sec 7.1-7.6 Effective July 1<sup>st</sup>, 2001.

\*\*\*\*Requires 2X6 assembly, or 2X4 R11 & Ext rigid R4.61. Cannot apply brace panels. \*\*\*\*\*Requires 2X12 @ vaulted areas with 2x6" foam channel ventilation.

RECEIVED  
 JUL 09 2004  
 NORTH PERMIT CENTER  
 SACRAMENTO  
 CITY OF SACRAMENTO  
 PLANNING & BUILDING DEPARTMENT

OFFICE COPY

**NEW HEATING, COOLING, OR DOMESTIC WATER HEATING**

• Systems installed in conjunction with the addition must comply with the appliance standards applicable to new installations in new residences. Complete the following standards if new equipment is being installed in conjunction with the room addition: Electric resistant heat not allowed.

HVAC SYSTEMS	Minimum	Duct	Output Manufacturer/Model # (Btu) (or approved equal)
Type: (Furnace, air conditioner, heat pump)	Efficiency (SE, SEER, HSPF)	Insulation	
_____	_____	R4.2	_____
_____	_____	R4.2	_____
_____	_____	R4.2	_____

HOT WATER SYSTEMS	Capacity (gallons)	Manufacturer/Model# (or Approved equal)	Special Features
System Type (storage, gas, electric)			
_____	_____	_____	_____

**COMPLIANCE STATEMENT**

This certificate of compliance lists the building features and performance specifications needed to comply with Title 24, Chapter 2-53, and Title 20, Chapter 2, subchapter 4, Article 1, of the California Administrative Code. The individual has signed this certificate with overall design responsibility and the building owner, who shall retain a copy of it and transmit the certificate to any subsequent purchases of the building. When this certificate of compliance is submitted for a single building plan to be built in multiple orientations, all building conservation features that vary are indicated in the Special Feature/Remarks section.

**BUILDING OWNER OR DESIGNER**

Name: MACKARE JONES  
 Title/Firm: AA  
 Address: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

**DOCUMENTATION AUTHOR**

Name: MACKARE JONES  
 Title/Firm: AARON CONSTRUCTION  
 Address: P.O. Box 47, SACPO

Mackare Jones 7/9/04  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

**ENFORCEMENT AGENCY**

Name: \_\_\_\_\_  
 Title/Firm: \_\_\_\_\_  
 Address: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

• Mandatory Measures Checklist:

MF-1R

NOTE: Low-rise residential buildings subject to the Standards must contain these measures regardless of the compliance approach used. Items marked with an asterisk (\*) may be superseded by more stringent compliance requirements listed on the Certificate of Compliance. When this checklist is incorporated into the permit documents, the features noted shall be considered by all parties as binding minimum component performance specifications for the mandatory measures whether they are shown elsewhere in the documents or on this checklist only.

Instructions: Check or initial applicable boxes when completed or enter N/A if not applicable.

DESCRIPTION	DESIGNER	ENFORCEMEN
<b>Building Envelope Measures.</b>		
§150(a): *Minimum R-19 ceiling insulation.		
§150(b): Loose fill insulation manufacturer's labeled R-Value.		
§150(c): *Minimum R-13 wall insulation in wood framed walls or equivalent U-value in metal frame walls (does not apply to exterior mass walls).		
§150(d): *Minimum R-13 raised floor insulation in framed floors.		
§150(1): Slab edge insulation - water absorption rate no greater than 0.3%; water vapor transmission rate no greater than 2.0 perm/inch.		
§118: Insulation specified or installed meets insulation quality standards. Indicate type and form.		
§116-§117: Fenestration Products, Exterior Doors, and Infiltration/Exfiltration Controls  1. Doors and windows between conditioned and unconditioned spaces designed to limit air leakage. 2. Fenestration products (except field-fabricated), have label with certified U-value, certified Solar Heat Gain Coefficient (SHGC), and infiltration certification. 3. Exterior doors and windows weather-stripped; all joints and penetrations caulked and sealed.		
§150(g): Vapor barriers mandatory in Climate Zones 14 and 16 only.		
§150(f): Special infiltration barrier installed to comply with §151 meets Commission quality standards.		
§150(e): Installation of Fireplaces, Decorative Gas Appliances, and Gas Logs. 1. Masonry and factory-built fireplaces have: a. Closeable metal or glass door. b. Outside air intake with damper and control. c. Flue damper and control. 2. No continuous burning gas pilot lights allowed.		

<b>Space Conditioning, Water Heating, and Plumbing System Measures.</b>		
§110-§113:	HVAC equipment, water heaters, showerheads, and faucets certified by the Commission.	
§150(h):	Heating and/or cooling loads calculated in accordance with ASHRAE, SMACNA, or ACCA.	
§150(i):	Setback thermostat on all applicable heating and/or cooling systems.	
§150(j):	<p>Pipe and Tank Insulation.</p> <ol style="list-style-type: none"> <li>1. Storage gas water heaters rated with an Energy Factor less than 0.58 must be externally wrapped with insulation having an installed thermal resistance of R-12 or greater.</li> <li>2. First 5 feet of pipes closest to water heater tank, non-recirculating systems, insulated (R-4 or greater).</li> <li>3. Backup tanks for solar system, unfired storage tanks, or other indirect hot water tanks have R-12 external insulation or R-16 combined internal/external insulation.</li> <li>4. All buried or exposed piping insulated in recirculating sections of hot water systems.</li> <li>5. Cooling system piping below 55°F insulated.</li> <li>6. Piping insulated between heating source and indirect hot water tank.</li> </ol>	
§150(m):	<p>Ducts and Fans.</p> <ol style="list-style-type: none"> <li>1. All ducts and plenums constructed, installed, insulated, fastened, and sealed to comply with the ICBO 1997 UMC Sections 601 and 603; ducts insulated to a minimum installed R-4.2 or ducts enclosed entirely within conditioned space. Openings shall be sealed with mastic, tape, aerosol sealant, or other duct closure system that meets the applicable requirements of UL181, UL181A, or UL181 B and other applicable specified tests for longevity given in §150(m).</li> <li>2. Exhaust fan systems have backdraft or automatic dampers.</li> <li>3. Gravity ventilating systems serving conditioned space have either automatic or readily accessible, manually operated dampers.</li> </ol>	
§114:	<p>Pool and Spa Heating Systems and Equipment.</p> <ol style="list-style-type: none"> <li>1. System is certified with 68% thermal efficiency, on-off switch, weatherproof operating instructions, no electric resistance heating, and no pilot light.</li> <li>2. System is installed with: <ol style="list-style-type: none"> <li>a. At least 36" of pipe between filter and heater for future solar heating.</li> </ol> </li> </ol>	
§115:	Gas-fired central furnace, pool heaters, spa heaters, or household cooking appliances have no continuously burning pilot light. (Exception: Non-electrical cooking appliances with Pilot <150 BTU/hr.)	
<b>Lighting Measures.</b>		
§150(k)1:	Luminaries for general lighting in kitchens shall have lamps with an efficacy of 40 lumens/watt or greater for general lighting in kitchens. This general lighting shall be controlled by a switch on a readily accessible lighting control panel at an entrance to the kitchen.	
§150 (k)2:	Rooms with a shower or bathtub must either have at least one luminaire with lamps with an efficacy of 40 lumens/watt or greater switched at the entrance to the room or one of the alternatives to this requirement allowed in §150(k)2; and recessed ceiling fixtures are IC (insulation cover) approved.	

NOTE: \*Minimum Measures above only apply to the Insulation R-Values of a Performance Computerized Design per State of California Title-2 minimums even though a Performance Design may show in some instances a lesser application and, do not apply to Prescriptive Packages D or Alternative Package D, Package D must comply strictly within its Module requirements. All others above apply to all packages.



11373 Trade Center Dr. #220  
Rancho Cordova, CA 95742  
Voice: 916.704.0824  
Fax: 916.638.9189  
CaimanEng@earthlink.net

April 20, 2004

City of Sacramento  
Planning and Building Department  
2101 Arena Blvd, Suite 200  
Sacramento, CA 96834

Subject: PC# 04-02410  
6 Hallwood Ct  
Chandra Addition

Following are structural comment responses to plan check for the above referenced project:

10. *Provide engineer calculation for size and span of ceiling beam supporting the original roof rafters and possible ceiling joists above the existing living room.*

- **Girder truss to be installed with existing rafters/ceiling joists to be connected using LSS210 hangers.**

13. *Provide engineer analysis for lateral bracing of the addition and the living/kitchen wall line including the addition.*

**Lateral analysis conducted. Wall line identified on the plans. Shear walls, holddowns and straps provided as necessary on wall lines 2 and B. Additional straps provided between porch beams and top plate of structure. Header and beam sizes checked and modified as necessary. Calculations provided.**

If you have any questions, please don't hesitate to call me at (916) 704-0824.



Roger Blair P.E.  
Caiman Engineering Inc.

**OFFICE COPY**