

TRANSMISSION VERIFICATION REPORT

TIME : 06/13/2006 08:56
 NAME : CITY OF SACRAMENTO
 FAX : 9168085543
 TEL : 9168085656
 SER.# : BROH4J832840

DATE, TIME : 06/13 08:53
 FAX NO./NAME : 93878032
 DURATION : 00:02:48
 PAGE(S) : 04
 RESULT : OK
 MODE : STANDARD

**CITY OF SACRAMENTO
 CASHIER'S WORKSHEET**

COPY 06/13/2006

RECEIPT NUMBER: R0610658

TRANSACTION DATE: 06/13/2006
 TRANSACTION AMOUNT: 187.70
 NOTATION:

APD #: **0608611**
 SITE ADDRESS: 1741 RIVER CITY WY SAC
 PARCEL: 225-0530-009
 TYPE: Bldg Minor Permit
 SUB-TYPE: RES
 HOUSING: N
 STATUS: ISSUED

Mixed Income Housing
 Fee Program
 ??

TRANSACTION LIST

Type	Method	Description	Pymt Amount
Payment	Cash		187.70

RECEIPT ACCOUNT ITEM LIST

Class #	Description	Item #	Total Fee	Prev Pymt	Current Pymt
200	Permit--Building-Res	1100	175.00	.00	175.00
206	City Business Oper Tax	1730	2.16	.00	2.16
213	General Plan Surcharge	1760	3.54	.00	3.54
259	Bldg-Technology Surchary	1750	7.00	.00	7.00

City of Sacramento



Inspection Request # (916) 264-7632

Building Permit

PAID

CITY OF SACRAMENTO

Office Use Only

Permit No: 0608611
Date Issued:
Total Amount: 187.00
Insp Area #: 4

JUN 13 2006

NEW CITY HALL

Please Fill in the Following

Site Address: 1741 - RIVER CITY WAY

Nature of Work: CHANGE OUT EXISTING HVAC SPLIT SYSTEM

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.)

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 E License Number 735542 Date 6-7-06 Signature Armand Allred

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 Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is not 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 Contractor's 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 voluntarily contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code). The Contractor's 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 Contractor's License Law.

I am exempt under Sec. 7031.5, B & P Code 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 above-described property for inspection purposes.

Date 6-7-06 Applicant/Agent Signature Armand Allred

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury use of the following declaration: I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3706 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 1625930 Expiration Date 2-10-07

(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 in or 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 these provisions.

Date 6-7-06 Applicant Signature Armand Allred

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 3704 OF THE LABOR CODE, INTEREST AND A ATTORNEY'S FEE.

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

PBF10004



1:15 P.M.

ATTENTION

KATHY

CITY OF SACRAMENTO
www.cityofsacramento.org
Help Line: 1-916-808-5656 OR 1-866-EZ-PERMIT
Inspection Request: 1-916-808-7622

PAID
CITY OF SACRAMENTO

Downtown Permit Center
1231 I Street, Suite 200
Sacramento, CA 95814
North Permit Center
2101 Arena Blvd., Suite 200
Sacramento, CA 95834

NEW CITY HALL Fax # 916-264-1901

MINOR PERMIT APPLICATION

Date: 6-7-06

Fastweb request must be received in this office by 3:00 P.M. to be processed the following workday. Contractors must have a current certificate of Worker's Compensation Insurance. Note: Work started before a Building Permit is issued will be subject to quad fee.

Permits requiring Plan Review are not eligible for the MINOR PERMIT PROGRAM

Design Review and Historic Preservation approval may be required if job address is located in those areas (additional forms may be required)

IN ORDER TO PROCESS THIS REQUEST, ALL THE FOLLOWING INFORMATION MUST BE PROVIDED:

Job Address: 1741- River Bidg Type: RESIDENTIAL APARTMENTS (4+ units per building) COMMERCIAL (limited)
CONTACT INFO Name: JOHN FONG City: WY Phone #: 548-2914 Unit # Contract Price \$400.00

Property Owner: JOHN FONG Contractor: MERIT HEATING License #: 735542

Address: 1741- RIVER CITY WAY Address: 5451- WAREHOUSE WAY #109
City/State/Zip: SACRO, CA. 95833 City/State/Zip: SACRO, CA. 95826
Phone: 548-2914 Wk # 974-5820 Phone: 682-6574 Fax: 387-8032

Nature of Work: Provide description of work & indicate type of work in selections below.

Pre-Registered? YES NO Registration #

Description of Work: CHANGE OUT EXISTING HVAC SPLIT SYSTEM

<input type="checkbox"/> Reroof (excluding tile) <input type="checkbox"/> Tear-Off <input type="checkbox"/> Resheet <input type="checkbox"/> House <input type="checkbox"/> Garage # Stories: _____ # Squares: _____ Material: _____ <input type="checkbox"/> Siding <input type="checkbox"/> Wood <input type="checkbox"/> T-111 <input type="checkbox"/> Horiz <input type="checkbox"/> Vinyl <input type="checkbox"/> Stucco	<input type="checkbox"/> HVAC Installations (Residential Only) <input checked="" type="checkbox"/> Change-out <input type="checkbox"/> New <input type="checkbox"/> Heat Pump <input type="checkbox"/> Package <input checked="" type="checkbox"/> Split system <input type="checkbox"/> Roof mount <input type="checkbox"/> Cut-in <input type="checkbox"/> Heat pump or elect. unit to gas. <input type="checkbox"/> Wall furnace <input type="checkbox"/> Other (describe below) Value of duct work: _____ Equipment: \$ _____ Out-in: \$ _____	<input type="checkbox"/> Water Heater (Residential Only) <input type="checkbox"/> Electric <input type="checkbox"/> Gas <input type="checkbox"/> Change-out <input type="checkbox"/> Electric to Gas <input type="checkbox"/> Relocate <input type="checkbox"/> New	<input type="checkbox"/> Minor Electric and/or Plumbing (Residential Only) <input type="checkbox"/> Electric Service Change # amps _____ <input type="checkbox"/> New electric circuits <input type="checkbox"/> Re-wire <input type="checkbox"/> Water Service Replacement <input type="checkbox"/> Sewer Service Replacement <input type="checkbox"/> Gas Line Replacement <input type="checkbox"/> Re-plumb <input type="checkbox"/> Water <input type="checkbox"/> Waste	<input type="checkbox"/> Public Utilities Safety Inspection (Residential and single apartment units Only) <input type="checkbox"/> SMUD <input type="checkbox"/> PG&E * NOTE * Correction Notice items will require an additional building permit.
Office Use Only: Parcel #:	Date Received:	Date Issued:	Processor's Initials:	Permit #: 0808611

\$187



CITY OF SACRAMENTO

www.cityofsacramento.org
 Help Line: 1-916-808-8888 OR 1-888-EZ-PERMIT
 Inspection Request: 1-916-808-7622

Downtown Permit Center
 1231 I Street, Suite 200
 Sacramento, CA 95814

North Permit Center
 2101 Archa Blvd., Suite 200
 Sacramento, CA 95834

fax back to 808-5543 Thanks, Kathy

HEATING and COOLING EQUIPMENT QUESTIONNAIRE

Applicant's Name: MERIT HEATING & A/C Phone: 682-8574
 Project Address: 1741 River City Wy Phone: _____

Please check the appropriate boxes. Only check a box if it accurately and completely describes your proposed work, otherwise leave boxes blank.

1. GROUND-MOUNTED UNIT

- a. There is an existing ground-mounted unit.
 - The existing unit shall be removed. The new unit shall be placed in the same location as the existing unit and shall not exceed the size of the existing unit by more than 25%.
 - The new unit differs in location from the existing unit.
 - The new unit is fully screened behind a solid fenced area and will not be visible from any street views.
 - Existing shrubs or buildings will screen the unit from being visible from any street views.
- b. There is no unit in the proposed location.
 - The new unit will be fully screened behind a solid fenced area and will not be visible from any street views.
 - Existing shrubs or building will screen the unit from being visible from any street views.

2. ROOF-MOUNTED UNIT

- a. There is an existing roof-mounted unit.
 - The existing unit shall be removed. The new unit shall be placed in the same location as the existing unit and shall not exceed the size of the existing unit by more than 25%.
 - The new unit differs in location from the existing unit. The new unit shall be screened from street views by the building with no portion of the new unit being visible from any street views.
- b. There is no existing roof-mounted unit.
 - The new unit shall be screened from street views by the building with no portion of the new unit being visible from any street views.

PAID
 CITY OF SACRAMENTO
 JUN 13 2006
 NEW CITY HALL

By signing below, the applicant certifies that this form accurately describes the proposed work.

Applicant's signature: Arland Whiddon Date: 6/12/06
 FOR CITY STAFF USE ONLY Counter Staff: Schwartz

- In a DR District. Meets DR criteria? Yes No (route to DR staff)
- In a F area or listed (route to F staff)
- Not in a DR or F area

1741 RIVER CITY WY

HVAC INSTALL - A.P.

T. Skinn

CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 1 of 8)

CF-4R

1741 River City Way
 Project Address
 Ed Lewis 682-8374
 Contractor Contact Telephone Permit Number
 Floyd Patterson 877-810-2247 29410
 HERS Rater Telephone Sample Group Number
 June 21, 2006 CC14-1798369992
 Certifying Signature Date Certificate Number
 Firm: ACIS
 Street Address: PO Box 580367
 HERS Provider: CalCERTS
 City/State/Zip: Elk Grove / CA / 95758

Copies to: Homeowner, HERS Provider and Building Department

This CF-4R has been registered with the CalCERTS® registry in accordance with the Title 24 & Title 20 of the CCR. CalCERTS® is an approved HERS provider by the California Energy Commission.

HERS RATER COMPLIANCE STATEMENT

The house was Tested Approved as part of sample testing, but was not tested. As the HERS rater providing diagnostic testing and field verification, I certify that the house identified on this form complies with the diagnostic tested compliance requirements as checked on this form. The HERS rater must check and verify that the new distribution system is fully ducted and correct tape is used before a CF-4R may be released on every tested building. The HERS rater must not release the CF-4R until a properly completed and signed CF-6R has been received for the sample and tested buildings.

- The installer has provided a copy of the CF-6R (Installation Certificate).
- New Distribution system is fully ducted (i.e., does not use building cavities as plenums or platform returns in lieu of ducts).
- New systems where cloth backed, rubber adhesive duct tape is installed, mastic and drawbands are used in combination with cloth backed, rubber adhesive duct tape to seal leaks at duct connections.

MINIMUM REQUIREMENTS FOR DUCT LEAKAGE REDUCTION COMPLIANCE CREDIT:

NEW CONSTRUCTION			
		Measured Values	
1	Duct Pressurization Test Results (CFM @ 25 Pa)	N/A	
2	Enter Tested Leakage Flow in CFM:		
2	Fan Flow: Calculated (Nominal <input type="radio"/> Cooling <input checked="" type="radio"/> Heating) or <input type="radio"/> Measured Enter Total Fan Flow in CFM:	1302	
3	Pass if Leakage Percentage $\leq 6\%$ [$100 \times (\text{Line 1} / \text{Line 2})$]:	N/A	N/A
ALTERATIONS: Duct System and/or HVAC Equipment Change-Out			
4	Enter Tested Leakage Flow in CFM from CF-6R: Pre-Test of Existing Duct System Prior to Duct System Alteration and/or Equipment Change-Out.	155	
5	Enter Tested Leakage Flow in CFM: Final Test of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.	155	
6	Enter Reduction in Leakage for Altered Duct System [Line 4 - Line 5] - (Only if Applicable)	0	
7	Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		
8	Entire New Duct System - Pass if Leakage Percentage $\leq 6\%$ [$100 \times (\text{Line 5} / \text{Line 2})$]:	11.904761904761903%	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
TEST OR VERIFICATION STANDARDS: For Altered Duct System and/or HVAC Equipment Change-Out, use one of the following four Test or Verification Standards for compliance:			
9	Pass if Leakage Percentage $\leq 15\%$ [$100 \times (\text{Line 5} / \text{Line 2})$]:	11.90%	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
10	Pass if Leakage to Outside Percentage $\leq 10\%$ [$100 \times (\text{Line 7} / \text{Line 2})$]:		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
11	Pass if Leakage Reduction Percentage $\geq 60\%$ [$100 \times (\text{Line 6} / \text{Line 4})$] and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
12	Pass if Sealing of all Accessible Leaks and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
	Pass if One of Lines #9 through #12 pass		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 3-4 of 8) CF-4R

1741 River City Way	MERIT Heating and Air Conditioning / 735542
<i>Project Address</i>	<i>Contractor Name / License No.</i>
<i>Ed Lewis</i> <i>682-8574</i>	0608611
<i>Contractor Contact</i>	<i>Telephone</i> <i>Permit Number</i>
Floyd Patterson	877-810-2247 29410
<i>HERS Rater</i>	<i>Telephone</i> <i>Sample Group Number</i>
<i>Certifying Signature</i>	June 21, 2006 CC14-1798369992
<i>Firm:</i> ACIS	<i>Date</i> <i>Certificate Number</i>
<i>Street Address:</i> PO Box 580367	HERS Provider: CalCERTS
	City/State/Zip: Elk Grove / CA / 95758

Copies to: Homeowner, HERS Provider and Building Department
 This CF-4R has been registered with the CalCERTS® registry in accordance with the Title 24 & Title 20 of the CCR. CalCERTS® is an approved HERS provider by the California Energy Commission.

HERS RATER COMPLIANCE STATEMENT
 The house was Tested Approved as part of sample testing, but was not tested.
 As the HERS rater providing diagnostic testing and field verification, I certify that the house identified on this form complies with the diagnostic tested compliance requirements as checked on this form.
 The installer has provided a copy of the CF-6R (Installation Certificate).

<input checked="" type="checkbox"/> THERMOSTATIC EXPANSION VALVE (TXV):	
Access is provided for inspection. The procedure shall consist of visual verification that the TXV is installed on the system and installation of the specific equipment shall be verified.	
HVAC System TXV	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

FROM :
Jun 19 08 04:40p

FAX NO. :

Jul. 03 2005 07:23AM P5

(Page 3 of 12) CF-6R	
INSTALLATION CERTIFICATE	
Site Address 1741 River City Way Sacramento, Ca. 95833	Permit Number 0608611

An installation certificate is required to be posted at the building site or made available for all appropriate inspections. (The information provided on this form is required) After completion of final inspection, a copy must be provided to the building department (upon request) and the building owner or occupancy, per Section 10-103(a).

HVAC SYSTEMS:
Heating Equipment

Equip Type (pkg. heat pump)	CBC Certified Mfr. Name and Model Number	# of Identical Systems	Efficiency (APUE, etc.) (≥CF-IR value)	Duct Location (attic, etc.)	Duct or Piping R-value	Heating Load (Btu/hr)	Heating Capacity (Btu/hr)
gas furn	American Standard	0	80%	attic	R-4.2		50K. btu/hr.
	AUD060R936K						
evap coil	CA036A862TMA						

Cooling Equipment

Equip Type (pkg. heat pump)	CBC Certified Mfr. Name and Model Number	# of Identical Systems	Efficiency (SEER or EER) (≥CF-IR value)	Duct Location (attic, etc.)	Duct R-value	Cooling Load (Btu/hr)	Cooling Capacity (Btu/hr)
A/C. Cond.	American Standard						
	2A7A3030A100AA		13.0-SEER	same	same		30K. btu/hr.

1. ≥ symbol reads *greater than or equal to what is indicated on the CF-IR value.*
Include both SEER and EER if compliance credit for high EER air conditioner is claimed.

✓ I, the undersigned, verify that equipment listed above is: 1) the actual equipment installed, 2) equivalent to or more efficient than that specified in the certificate of compliance (Form CF-1R) submitted for compliance with the *Energy Efficiency Standards* for residential buildings, and 3) equipment that meets or exceeds the appropriate requirements for manufactured devices (from the *Appliance Efficiency Regulations* or Part 6), where applicable.

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	MERIT Heating and Air Conditioning
Signature: <i>Ed [Signature]</i>	Date: 6-20-06

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE		(Page 4 of 12) CF-6R
Site Address 1741 river City Way Sacramento, Ca. 95833	Permit Number 0608611	

INSTALLER COMPLIANCE STATEMENT FOR DUCT LEAKAGE

INSTALLER COMPLIANCE STATEMENT

The building was: Tested at Final Tested at Rough-in

INSTALLER VISUAL INSPECTION AT FINAL CONSTRUCTION STAGE:

- Remove at least one supply and one return register, and verify that the spaces between the register boot and the interior finishing wall are properly sealed.
- If the house rough-in duct leakage test was conducted without an air handler installed, inspect the connection points between the air handler and the supply and return plenums to verify that the connection points are properly sealed.
- Inspect all joints to ensure that no cloth backed rubber adhesive duct tape is used
- New Distribution system is fully ducted (i.e., does not use building cavities as plenums or platforms returns in lieu of ducts).

DUCT LEAKAGE REDUCTION

Procedures for field verification and diagnostic testing of air distribution systems are available in RACM, Appendix RC1.3

NEW CONSTRUCTION:		Measured Values	
1	Duct Pressurization Test Results (CFM @ 25 Pa)	155	
2	Enter Tested Leakage Flow in CFM: Fan Flow: Calculated (Nominal: <input type="checkbox"/> Cooling <input checked="" type="checkbox"/> Heating) or <input checked="" type="checkbox"/> Measured If Fan Flow is Calculated as 400 cfm/ton x number of tons or as 21.7 cfm/(kBtu/hr) x Heating Capacity in Thousands of Btu/hr output, enter total calculated or measured fan flow in CFM here:	1302	✓ ✓
3	Pass if Leakage Percentages 6% for Final or ≤ 4% at Rough-in: [100 x [(Line # 1) / (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
ALTERATIONS: Duct System and/or HVAC Equipment Change-Out			
4	Enter Tested Leakage Flow in CFM from Pre-Test of Existing Duct System Prior to Duct System Alteration and/or Equipment Change-Out.		
5	Enter Tested Leakage Flow in CFM from Final Test of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.		
6	Enter Reduction in Leakage for Altered Duct System [(Line # 4) Minus (Line # 5)] - (Only if Applicable)		
7	Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		✓ ✓
8	Enter New Duct System - Pass if Leakage Percentage ≤ 6% for Final [100 x [(Line # 5) / (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
TEST OR VERIFICATION STANDARDS: For Altered Duct System and/or HVAC Equipment Change-Out Use one of the following four Test or Verification Standards for compliance:			
9	Pass if Leakage Percentage ≤ 15% [100 x [155 (Line # 5) / 1302 (Line # 2)]]	11.9%	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
10	Pass if Leakage to Outside Percentage ≤ 10% [100 x [(Line # 7) / (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
11	Pass if Leakage Reduction Percentage ≥ 60% [100 x [(Line # 6) / (Line # 4)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
12	Pass if Sealing of all Accessible Leaks and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Pass if One of Lines # 9 through # 12 pass			<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

I, the undersigned, verify that the above diagnostic test results were performed in conformance with the requirements for compliance credit. I, the undersigned, also certify that the newly installed or retrofit Air-Distribution System Ducts, Plenums and Fans comply with Mandatory requirements specified in Section 150 (m) of the 2005 Building Energy Efficiency standards.

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	MERIT Heating and Air Conditioning
Signature: <i>Elmer</i>	Date: 6-20-06

Copies to: BUILDING DEPARTMENT, HEREINATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 5 of 12) CF-6R
Site Address 1741 River city Way Sacramento, Ca. 95833	Permit Number 0608611

THERMOSTATIC EXPANSION VALVE (TXV)
Procedures for field verification of thermostatic expansion valves are available in RACM, Appendix RI.

✓	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Access is provided for inspection. The procedure shall consist of visual verification that the TXV is installed on the system and installation of the specific equipment shall be verified. Mfg. Labels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
				Yes is a pass	Pass Fail

REFRIGERANT CHARGE MEASUREMENT
Verification for Required Refrigerant Charge and Adequate Airflow for Split System Space Cooling Systems without Thermostatic Expansion Valves

Outdoor Unit Serial #	
Location	
Outdoor Unit Make	
Outdoor Unit Model	
Cooling Capacity	Btu/hr
Date of Verification	
Date of Refrigerant Gauge Calibration	(must be checked monthly)
Date of Thermocouple Calibration	(must be checked monthly)

Standard Charge Measurement Procedure (outdoor air dry-bulb 55°F and above):
Procedures for Determining Refrigerant Charge using the Standard Method are available in RACM, Appendix RD2.
 Note: The system should be installed and charged in accordance with the manufacturer's specifications before starting this procedure.

Measured Temperatures

Supply (evaporator leaving) air dry-bulb temperature (T _{supply} , db)		°F
Return (evaporator entering) air dry-bulb temperature (T _{return} , db)		°F
Return (evaporator entering) air wet-bulb temperature (T _{return} , wb)		°F
Evaporator saturation temperature (T _{evaporator} , sat)		°F
Suction line temperature (T _{suction} , db)		°F
Condenser (entering) air dry-bulb temperature (T _{condenser} , db)		°F

Superheat Charge Method Calculations for Refrigerant Charge

Actual Superheat = T _{suction} , db - T _{evaporator} , sat		°F
Target Superheat (from Table RD-2)		°F
Actual Superheat - Target Superheat (System passes if between -5 and +5°F)		°F

Temperature Split Method Calculations for Adequate Airflow

Actual Temperature Split = T _{return} , db - T _{supply} , db		°F
Target Temperature Split (from Table RD3)		°F
Actual Temperature Split - Target Temperature Split (System passes if between -3°F and +3°F or, upon remeasurement, if between -3°F and -10°F)		°F

INSTALLATION CERTIFICATE		(Page 6 of 12) CF-6R
Site Address 1741 River City Way Sacramento, Ca. 95833		Permit Number 0608611

Standard Charge Measurement Summary:
System shall pass both refrigerant charge and adequate airflow calculation criteria from the same measurements. If corrective actions were taken, both criteria must be remeasured and recalculated.

Yes No **System Passes**

Alternate Charge Measurement Procedure (outdoor air dry-bulb below 55 °F)
Note: The system should be installed and charged in accordance with the manufacturer's specifications and installer verification shall be documented on CF-6R before starting this procedure. If outdoor air dry-bulb is 55 °F or above, installer shall use the Standard Charge Measure Procedure:

Procedures for Determining Refrigerant Charge using the Alternate Method are available in RACM, Appendix RD3.
Weight-In Charging Method for Refrigerant Charge

Actual liquid line length:		ft
Manufacturer's Standard liquid line length:		ft
Difference (Actual - Standard):		
Manufacturer's correction (ounces per foot) _____ x difference in length = _____ ounces (+ = add) (- = remove)		

Measured Airflow Method for Adequate Airflow Verification available in RACM, Appendix RD2.6

Calculated Airflow: Cooling Capacity (Btu/hr) _____ X 0.033 (cfm/Btu-hr) = _____ CPM
Measured Airflow is _____ CPM (Measured airflow must be greater than the calculated airflow).

Alternate Charge Measurement Summary:
System shall pass both refrigerant charge and adequate airflow calculation criteria from the same measurements. If corrective actions were taken, both criteria must be remeasured and recalculated.

Yes No **System Passes**

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	MERIT Heating and Air Conditioning
Signature: <i>Ed Lewis</i>	Date: 6-20-06

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

CERTIFICATE OF COMPLIANCE: RESIDENTIAL		(Page 1 of 5)	CF-1R
Project Title JOHN FONG	Date 6.9.04	Building Permit # X	
Project Address 1741 RIVER CITY WAY		Plan Check / Date	
SACTO. CA. 95833		Field Check / Date	
Documentation Author Arland Whiddon / Ed Lenoir	Telephone (916) 682-8574	Enforcement Agency Use Only	
Compliance Method (Prescriptive) Prescriptive	Climate Zone 11 / 12		

Alternative Component Package Method: (check one) C D D (Alternative)
 * Package C and Package D choices require HERS rater field verification and/or diagnostic testing (see CF-1R page 3)
 For Package D Alternative see Appendix B Table 151-C Footnotes 7-14

GENERAL INFORMATION

Total Conditioned Floor Area (CFA) N/A ft²
 Average Ceiling Height: N/A ft
 Maximum Allowed West Facing Fenestration Products Per Table 151-B or 151-C — (5% X CFA) N/A ft²
 Maximum Allowed Total Fenestration Products Per Table 151-B or 151-C — (20% X CFA) N/A ft²

Building Type: (check one or more) Single Family Multifamily Addition Alteration
 (If adding fenestration fill out WS-4R, Fenestration Maximum Allowed Area Worksheet and see Section 8.3.2 for Additions and 8.3.3 for Alterations.)

Number of Stories: 1 Number of Dwelling Units: 1
 Floor Construction Type: N/A Slab/Raised Floor (circle one or both)
 Front Orientation: N/A North / South / East / West / All Orientations (input front orientation in degrees from True North and circle one).

RADIANT BARRIER (required in climate zones 2, 4, 8-15)

OPAQUE SURFACES INCLUDING OPAQUE DOORS

Component Type (Wall, Roof, Floor, Slab Edge, Doors)	Frame Type (Wood or Metal)	Cavity Insulation R-Value	Continuous Insulation R-Value	Assembly U-factor (for wood, metal frame and mass assemblies) ¹	Joint Appendix IV Reference	Roof Radiant Barrier Installed Yes or No	Location Comments (attic, garage, typical, etc.)

1) See Joint Appendix IV in Section IV.2, IV.3 and IV.4, which is the basis for the U-factor criterion. U-factors can not exceed prescriptive value to show equivalence to R-values.

CERTIFICATE OF COMPLIANCE: RESIDENTIAL (Page 2 of 5) CF-1R	
Project Title JOHN FONG	Date 6-9-06

FENESTRATION PRODUCTS - U-FACTOR AND SHGC

✓ FENESTRATION MAXIMUM ALLOWED AREA WORKSHEET WS-4R - must be included for New Construction, Additions and Alterations.

Fenestration #/Type/Pos. (Front, Left, Rear, Right, Skylight)	Orientation, N, S, E, W	Area (ft ²)	U-factor	SHGC ⁴	SHGC Source ⁵	Exterior Shading/Overhangs ^{6,7} ✓ box if WS-3R is included
N/A						
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

- 1) Skylights are now included in West-facing fenestration area if the skylights are tilted to the west or tilted in any direction when the pitch is less than 1:12. See §151(f)(3)C and in Section 3.2.3 of the Residential Manual
- 2) Enter values in this column as either NFRC Rated value or from Standards default Table 116A.
- 3) Indicate source either from NFRC or Table 116A.
- 4) Enter values in this column from NFRC or from Standards Default Table 116B or adjusted SHGC from WS-3R.
- 5) Indicate source either from NFRC or Table 116B.
- 6) Shading Devices are defined in Table 3-3 in the Residential Manual and see WS-3R to calculate Exterior Shading devices.
- 7) See Section 3.2.4 in the Residential Manual.

HVAC SYSTEMS

FUR. model # **AUD060R936K**
 COIL. "11" # **CA036A862TMA**
 COND. UNIT # **2A7A3030A1000A**

Heating Equipment Type and Capacity (furnace, heat pump, boiler, etc.)	Minimum Efficiency (AFUE or HSPF)	Distribution Type and Location (duct, attic, etc.)	Duct or Piping R-Value	Thermostat Type	Configuration (split or package)
SPLIT SYSTEM FURNACE	80%	ATTIC	R-4	SET BACK	SPLIT
GECK B.T.U.					

Cooling Equipment Type and Capacity (A/C, heat pump, evaporator cooling)	Minimum Efficiency (SEER or EER)	Duct Location (attic, etc.)	Duct R-Value	Thermostat Type	Configuration (split or package)
A/C 2.5 Ton	13	SAME	R-4	SAME	SAME

CERTIFICATE OF COMPLIANCE: RESIDENTIAL (Page 3 of 5) **CF-1R**

Project Title: JOHN FONG Date: 6-9-06

SEALED DUCTS and TXVs (or Alternative Measures)

A signed CF-4R Form must be provided to the building department for each home for which the following are required.

- Sealed Ducts (all climate zones) (installer testing and certification and HERS rater field verification required.)
- TXVs, readily accessible (climate zones 2 and 8-15 only) (installer testing and certification and HERS Rater field verification required.)
- Refrigerant Charge (climate zones 2 and 8-15 only) (installer testing and certification and HERS Rater field verification required.)

OR

- Alternative to Sealed Ducts and Refrigerant Charge /TXVs (See Package D Alternative Package Features for Project Climate Zone in the RM Appendix B Table 151-C, Footnotes 7-14.)

OR

- For additions and alterations, duct systems that are not documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Residential ACM Manual and duct systems with more than 40 linear feet in unconditioned spaces shall meet the requirements of Section 150(m) and duct insulation requirements of Package D.

WATER HEATING SYSTEMS

- Check box if system meets criteria of a "Standard" system. Standard system is one gas-fired water heater per dwelling unit. If the water heater is a storage type, 50 gallons is the maximum capacity and recirculation system is not allowed.
- Check box when using Preapproved Alternative Water Heating table, Table 5-4 in Chapter 5 in the Residential Manual. No water heating calculations are required and the system complies automatically.
- Check box if system does not meet criteria of a "Standard" system, and does not comply with the Preapproved Alternative Water Heating table. In this case, the Performance Method must be used and must be included in the submittal.
- Check box to verify that a time control is required for a recirculating system pump for a system serving multiple units.

Systems serving single dwelling units

Water Heater Type/Fuel Type	Distribution Type	Number in System	Rated Input ¹ (kW or Btu/hr)	Tank Capacity (gallons)	Energy Factor ¹ or Thermal Efficiency	Standby ¹ Loss (%)	Tank External Insulation R-Value
N/A							

System serving multiple dwelling units

Water Heater Type	Distribution Type	Number in System	Rated Input ¹ (kW or Btu/hr)	Tank Capacity (gallons)	Energy Factor ¹ or Thermal Efficiency	Standby ¹ Loss (%)	Tank External Insulation R-Value
N/A							

1) For small gas storage water heaters (rated inputs of less than or equal to 75,000 Btu/hr), electric resistance, and heat pump water heaters, list Energy Factor. For large gas storage water heaters (rated input of greater than 75,000 Btu/hr), list Rated Input, Recovery Efficiency, Thermal Efficiency and Standby Loss. For instantaneous gas water heaters, list Rated Input and Thermal Efficiency.

Pipe Insulation (kitchen lines $\geq 3/4$ inches) All hot water pipes from the heating source to the kitchen fixtures that are $3/4$ inches or greater in diameter shall be thermally insulated as specified by Section 150 (j) 2 A or 150 (i) 2 B.

CERTIFICATE OF COMPLIANCE: RESIDENTIAL (Page 4 of 5) CF-1R	
Project Title JOHN FONG	Date 6-9-06

SPECIAL FEATURES NOT REQUIRING HERS VERIFICATION (add extra sheets if necessary)

Indicate which special features are part of this project. The list below represents special features relevant to the Prescriptive and Performance Method.

✓	Feature	Required Forms (if applicable)	Description
<input type="checkbox"/>	Metal Framed Walls	CF-1R	
<input type="checkbox"/>	Radiant Barriers	CF-1R	
<input type="checkbox"/>	Exterior Shades	WS-4R	
<input type="checkbox"/>	Cool Roof	N/A; Performance Calculation Required. Attach CRRC Label to Forms.	
<input type="checkbox"/>	Dedicated Hydronic Heating System	N/A	
<input type="checkbox"/>	Combined Hydronic System	N/A	
<input type="checkbox"/>	Gas Cooling	N/A; Performance Calculation Required.	
<input type="checkbox"/>	Buried Ducts	N/A; Indicate on building plans.	
<input type="checkbox"/>	Kitchen Pipe Insulation	See Section 5.6.2 Distribution Systems in Residential Manual.	
<input type="checkbox"/>	Multiple Water Heaters Per Dwelling Unit	See Table 5-13 or use Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Central Water Heating System Serving Multiple Dwellings	Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Non-NAECA Large Water Heater	CF-1R	
<input type="checkbox"/>	Indirect Water Heater	See Table 5-13 or use Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Instantaneous Gas Water Heater	See Table 5-13 or use Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Solar Water Heating System	See Table 5-13 or use Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Wood Stove Boiler	Performance Calculation and attach Run to Forms.	

SPECIAL FEATURES REQUIRING HERS RATER VERIFICATION

(add extra sheets if necessary) Indicate to the HERS Rater which credits are part of this project and need verification.

✓	Feature	Required Forms (if applicable)	Description
<input type="checkbox"/>	Duct Sealing	CF-6R part 4 of 12	
<input type="checkbox"/>	Refrigerant Charge	CF-6R part 5 of 12	
<input type="checkbox"/>	Thermostatic Expansion Valve	CF-6R part 6 of 12	

CERTIFICATE OF COMPLIANCE: RESIDENTIAL (Page 5 of 5) CF-1R	
Project Title JOHN FONG	Date 6.9.06

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations, and the administrative regulations to implement them. This certificate has been signed by the individual with overall design responsibility. The undersigned recognizes that compliance using duct design, duct sealing, verification of refrigerant charge and TXVs, insulation installation quality, and building envelope sealing require installer testing and certification and field verification by an approved HERS rater.

Designer or Owner (per Business and Professions Code)	Documentation Author
Name: JOHN FONG	Name: Arland Whiddon/ Ed Lenoir
Title/Firm: Owner	Title/Firm: Merit Heating and Air Conditioning
Address: 1741 RIVER CITY WAY	Address: 5451 Warehouse Way ste. #109
SACTO, CA, 95833	Sacramento, Ca. 95826
Telephone: CEU# 548-2914 WPA# 971-5820	Telephone: (916) 682-8574
Licence #: TENNIS CH. & PATRICK OR DENISE #798-3185	
<i>X</i> John Fong <i>X</i> 6.9.06 (signature) (date)	<i>Arland Whiddon</i> 6.9.06 (signature) (date)

Enforcement Agency

Name: _____	Comments: _____ _____ _____ _____
Title: _____	
Agency: _____	
Telephone: _____	
(signature / stamp) _____ (date) _____	