

TRANSMISSION VERIFICATION REPORT

TIME : 09/27/2006 15:42  
 NAME : CITY OF SACRAMENTO  
 FAX : 9168085543  
 TEL : 9168085656  
 SER.# : BROH4J832840

DATE, TIME	09/27 15:37
FAX NO./NAME	94523439
DURATION	00:05:34
PAGE(S)	12
RESULT	OK
MODE	STANDARD ECM

*Garick*

**CITY OF SACRAMENTO  
 CASHIER'S WORKSHEET (ISSUED)  
 CITY OF SACRAMENTO  
 SEP 27 2016  
 DOWNTOWN PERMIT  
 CENTER**

RECEIPT NUMBER: R0617893  
 TRANSACTION DATE: 09/27/2006  
 TRANSACTION AMOUNT: 192.62  
 NOTATION:

APD #: **0614967**  
 SITE ADDRESS: 2180 3RD AV SAC  
 PARCEL: 013-0031-010  
 TYPE: Bldg Minor Permit  
 SUB-TYPE: RES  
 HOUSING: N  
 STATUS: **ISSUED**

Mixed Income Housing  
 Fee Program  
 ??

TRANSACTION LIST

Type	Method	Description	Pymt Amount
Payment	Credit C	TEETER	192.62

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	4.13	.00	4.13
213	General Plan Surcharge	1760	6.49	.00	6.49
259	Bldg-Technology Surcharg	1750	7.00	.00	7.00



Inspection Request # (916) 264-7622

Building Permit

\*\*\*\*\* Office Use Only \*\*\*\*\* ISSUED \*\*\*\*\*

Permit No: 0614967
Date Issued: 9-27-06
Total Amount: \$192.62
Insp Area #: 3

CITY OF SACRAMENTO
SEP 27 2006
DOWNTOWN PERMIT CENTER

\*\*\*\*\* Please Fill in the Following \*\*\*\*\*

Site Address: 2180 3 Rd Ave SUC Cn 95818
Nature of Work: Split System HVAC Change out like For Like

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 5 of the Business and Professions Code and my license is in full force and effect.
License Class: C-20 License Number: 882046 Date: Sept 27-06 Signature: Warren T. Whisht

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 5 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 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 exclusively 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. 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 improvement. 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 assure 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-mentioned property for inspection purposes.
Date: 9-27-06 Applicant/Agent Signature: Warren T. Whisht

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: Virginia SURETACO
Policy Number: SV50012645-01 Expiration Date: 11-07

(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 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: 9-27-06 Applicant Signature: Warren T. Whisht

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.

PBF10004

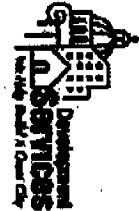


Fax 916-808-4101  
Development Permit Center, New City Hall  
9711 Street 37, Sacramento, CA 95817

North Branch Center  
2301 Arroyo Blvd., Suite 200, Sacramento, CA 95804

Fax 916-808-8370

**CITY OF SACRAMENTO  
PLANNING & BUILDING DEPARTMENT**  
MILDRED CHANSON  
WATER/SEWER/STORMWATER  
Map Line: 1418-000-5995 OR 1-408-63-PEQUANI  
Inspection: 1418-000-3922



Activity # \_\_\_\_\_

**PERMIT APPLICATION**  
(see the instructions on the back)

Date: SEP 22 06

*Permit requests must be received by 5:00 PM to be processed the following working day. Contractors must have a current certificate of Worker's Compensation Insurance. Note: Permit issued before a Building Permit is issued will be subject to annual fee.*

**Number indicates Fee Number see fee schedule for PAYMENT**

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

**CREDIT CARD INFORMATION (ON FILE)  RESIDENTIAL  APARTMENTS (4+ units per building)  COMMERCIAL (limited)**  
 Job Address: 2180 3rd Ave SW 452-2447 603723  
 Contact Person: Allyson Walker 5822046  
 Property Owner: Stephen Barker  
 Address: 2180 3rd Ave SW  
 City/Zip: SACRAMENTO 95818  
 Phone: 916-457-1484 EXT 4  
 Nature of Work: (Provide detailed description of work & include type of work to production labor)  
 Description of Work: Split System HVAC Change out like for like

<input type="checkbox"/> Demolition (including site) <input type="checkbox"/> New <input type="checkbox"/> Change-out	<input type="checkbox"/> VAC (including site) <input type="checkbox"/> New <input type="checkbox"/> Change-out	<input type="checkbox"/> Water Heater (including site) <input type="checkbox"/> New <input type="checkbox"/> Change-out	<input type="checkbox"/> Water Heater (including site) <input type="checkbox"/> New <input type="checkbox"/> Change-out	<input type="checkbox"/> Public Utilities Safety (including site) <input type="checkbox"/> New <input type="checkbox"/> Change-out
# Basins: _____	# Basins: _____	# Basins: _____	# Basins: _____	# Basins: _____
# Requirements: _____	# Requirements: _____	# Requirements: _____	# Requirements: _____	# Requirements: _____
Submittals: <input type="checkbox"/> Sliding <input type="checkbox"/> Fixed <input type="checkbox"/> E-111 <input type="checkbox"/> Vinyl <input type="checkbox"/> Other	Submittals: <input type="checkbox"/> Sliding <input type="checkbox"/> Fixed <input type="checkbox"/> E-111 <input type="checkbox"/> Vinyl <input type="checkbox"/> Other	Submittals: <input type="checkbox"/> Sliding <input type="checkbox"/> Fixed <input type="checkbox"/> E-111 <input type="checkbox"/> Vinyl <input type="checkbox"/> Other	Submittals: <input type="checkbox"/> Sliding <input type="checkbox"/> Fixed <input type="checkbox"/> E-111 <input type="checkbox"/> Vinyl <input type="checkbox"/> Other	Submittals: <input type="checkbox"/> Sliding <input type="checkbox"/> Fixed <input type="checkbox"/> E-111 <input type="checkbox"/> Vinyl <input type="checkbox"/> Other
Value of work: _____	Value of work: _____	Value of work: _____	Value of work: _____	Value of work: _____
Order # _____	Order # _____	Order # _____	Order # _____	Order # _____

*\* Double basins approved may be used.  
\* Double basins approved may be used.*

**NOTE:**  
Correction Notice items will require an additional building permit.

PERM0002

*0614967  
ALEX  
M*

SEP-22-2006 12:43P FROM:

TO: 8088370

P.3



CITY OF SACRAMENTO

www.cityofsacramento.gov
Help Line: 1-816-808-8888 OR 1-800-82-PERMIT
Inspection Request: 1-816-808-7822

New City Hall
915 I Street, 3rd Floor
Sacramento, CA 95814

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

HEATING and COOLING EQUIPMENT QUESTIONNAIRE

Applicant's Name: Carick Service Co. Phone: 916 452-2477
Project Address: 2180 3RD AVE SAC CA Phone: 916-457-1489 EXT. 11

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 buildings 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.

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

Applicant's signature: WALTER WASHNT Date: Sept 27, 06
FOR CITY STAFF USE ONLY:
Canner Staff:

- Is a DR District. Means DR district? Yes No (route to DR staff)
Is a P area or listed (zone to P, etc)?
Not in a DR or P area

heating\_questionnaire\_form - 04/2005

91689 8.002/002

DEVELOPMENT SERVICES

APR.29.2006 12:17 916-261-1962

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

CF-4R

**2180 3rd Ave - Sacramento, Ca 95818**

Garick / 582046

Project Address

Contractor Name / License No.

06-14967

Contractor Contact

Telephone

Permit Number

John Gustason

916-768-9459

42743

HERS Rater

Telephone

Sample Group Number

October 3, 2006

CC14-1798383325

Certifying Signature

Date

Certificate Number

Firm: Energy Analysis and Comfort Solutions, Inc.

HERS Provider: CalCERTS

Street Address: PO Box 2233

City/State/Zip: Orangevale / CA / 95662

**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).

**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

Pass  Fail

**CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 1 of 8) CF-4R**

<b>2180 3rd Ave - Sacramento, Ca 95818</b>		<b>Garick / 582046</b>	
Project Address		Contractor Name / License No.	
		06-14967	
Contractor Contact		Telephone	Permit Number
<b>John Gustason</b>		916-768-9459	42743
HERS Rater		Telephone	Sample Group Number
<i>John Gustason</i>		October 3, 2006	CC14-1798383325
Certifying Signature		Date	Certificate Number
Firm: Energy Analysis and Comfort Solutions, Inc.		HERS Provider: <b>CalCERTS</b>	
Street Address: PO Box 2233		City/State/Zip: <b>Orangevale / CA / 95662</b>	

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	
	Duct Pressurization Test Results (CFM @ 25 Pa)		
1	Enter Tested Leakage Flow in CFM:	N/A	
2	Fan Flow: Calculated (Nominal <input checked="" type="radio"/> Cooling <input type="radio"/> Heating) or <input type="radio"/> Measured Enter Total Fan Flow in CFM:	1200	
3	Pass if Leakage Percentage <= 6% [ 100 x ( Line 1 / 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.		
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.	63	
6	Enter Reduction in Leakage for Altered Duct System [Line 4 - 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% [ 100 x ( Line 5 / Line 2 ) ]:	5.30%	<input checked="" 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 ( Line 5 / Line 2 ) ]:		<input 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 ) ] 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 type="checkbox"/> Pass <input type="checkbox"/> Fail

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

**CF-4R**

<b>2180 3rd Ave - Sacramento, Ca 95818</b>		<b>Garick / 582046</b>
<i>Project Address</i>		<i>Contractor Name / License No.</i>
<b>John Gustason</b>		<b>06-14967</b>
<i>Contractor Contact</i>		<i>Permit Number</i>
<b>John Gustason</b>		<b>42743</b>
<i>HERS Rater</i>		<i>Sample Group Number</i>
<b>October 3, 2006</b>		<b>CC14-1798383325</b>
<i>HERS Rater</i>		<i>Date</i>
<b>Energy Analysis and Comfort Solutions, Inc.</b>		<b>HERS Provider: CalCERTS</b>
<i>Firm</i>		<i>City/State/Zip: Orangevale / CA / 95662</i>
<b>PQ Box 2233</b>		
<i>Street Address</i>		

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 checked="" type="radio"/> Cooling <input checked="" type="radio"/> Heating) or <input type="radio"/> Measured	1200	
3	Enter Total Fan Flow in CFM:		
3	Pass if Leakage Percentage <= 6% [ 100 x ( Line 1 / 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.		
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.	63	
6	Enter Reduction in Leakage for Altered Duct System [Line 4 - Line 5] - (Only if Applicable)		
7	Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		
8	Entire New Duct System - Pass if Leakage Percentage <= 6% [ 100 x ( Line 5 / Line 2 ) ]:	5.30%	<input checked="" 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 ( Line 5 / Line 2 ) ]:		<input 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 ) ] 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 type="checkbox"/> Pass <input type="checkbox"/> Fail

*Birkler*

# INSTALLATION CERTIFICATE

(Page 6 of 12)

CF-6R

2180 3rd Ave	Sacramento	Ca	95815
Site Address			Permit Number:

### 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 oF)

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 oF or above, installer shall use the Standard Charge Measure Procedure:

Procedures for Determining Refrigerant Charge using the Alternate Method are available in RACM, Appendix RDS.

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

### Measured Airflow Method for Adequate Airflow Verification available in RACM, Appendix

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

### 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

*[Signature]* 10/3/06  
 Signature, Date

Garick  
 Installing Subcontractor (Co. Name) OR  
 General Contractor (Co. Name) OR Owner

COPY TO: Building Department  
 HERS Rater (if applicable)  
 Building Owner or Occupancy

46  
 6022-7



**INSTALLATION CERTIFICATE**

(Page 5 of 12)

CF-6R

2180 3rd Ave Sacramento Ca 95818  
 Site Address Permit Number:

**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.		
		Yes is a Pass	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail

**REFRIGERANT CHARGE MEASUREMENT PROCEDURE**

Verification for Required Refrigerant Charge and Adequate Airflow for Split System Space Cooling Systems without Thermostatic

Expansion Valve	
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 66°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

**Measured Temperatures**

Supply (evaporator leaving) air dry-bulb temperature (Tsupply, db)		F
Return (evaporator entering) air dry-bulb temperature (Treturn, db)		F
Return (evaporator entering) air wet-bulb temperature (Treturn, wb)		F
Evaporator saturation temperature (Tevaporator, sat)		F
Suction line temperature (Tsuction, db)		F
Condenser (entering) air dry-bulb temperature (Tcondenser, db)		F

**Superheat Charge Method Calculations for Refrigerant Charge**

Actual Superheat = Tsuction, db - Tevaporator, 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**

Split Method Calculation is not necessary if Adequate Airflow credit is taken

Actual Temperature Split = Treturn, db - Tsupply, 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 re-measurement, if between -3°F and -10°F)	3°F and +3°F	F

INSTALLATION CERTIFICATE

2180 3rd Ave Sacramento Ca 95818
Site Address Permit Number:

INSTALLER COMPLIANCE STATEMENT FOR DUCT LEAKAGE

Copies to: Builder, HERS Rater, Building Owner at Occupancy and Building Department

INSTALLER COMPLIANCE STATEMENT

The building was: [X] Tested at Final [ ] Tested at Rough-in

INSTALLER VISUAL INSPECTION AT FINAL CONSTRUCTION STAGE:

- [X] 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.
[X] Inspect all joints to ensure that no cloth backed rubber adhesive duct tape is used

[X] DUCT LEAKAGE REDUCTION

Procedures for field verification and diagnostic testing of air distribution systems are available in RACM, Appendix RC4.3

Table with columns for Test Description, Measured Values, and Pass/Fail status. Includes sections for NEW CONSTRUCTION (Duct Pressurization Test Results) and ALTERATIONS (Duct System and/or HVAC Equipment Change-Out).

[X] 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 retrofitted Air-Distribution System Ducts, Plenums and Fans comply with Mandatory requirements specified in Section 180 (m) of the 2005 Building Energy Efficiency

Signature: [Handwritten Signature] Date: 10/3/06 Gerick
Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) 46 5022-7

**INSTALLATION CERTIFICATE**

(Page 3 of 12)

CF-6R

2180 3rd Ave

Sacramento

Ca

95818

Site Address

Permit Number:

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 at occupancy, per Section 10-102(a).

**HVAC SYSTEMS:**

**Heating Equipment**

Equip. Type (pkg. heat)	CEC Certified Mfg. Name, Model, and Serial No.	# of Identical Systems	Efficiency (AFUE, etc) <sup>1</sup> >(CF-1R value)	Duct Location	Duct or Piping R-Value	Heating Load (kBtu/hr)	Heating Capacity (kBtu/hr)
Split	LENNOX	1	80.00 AFUE	Attic	6	38795	70
Furnace	G60UHV36A070						

**Cooling Equipment**

Equip. Type (pkg. heat pump)	CEC Certified Mfg. Name, Model, and Serial No.	# of Identical Systems	Efficiency (AFUE, etc) <sup>1</sup> >(CF-1R value)	Duct Location	Duct or Piping R-Value	Cooling Load (kBtu/hr)	Cooling Capacity (kBtu/hr)
Split	LENNOX	1	16.60 SEER	Attic	6	43161	36
A/C	XC16-036		12.90 EER				
Coil	ASPEN						
	CB36D44145T						

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

If, the undersigned, verify that equipment listed above is: 1) is 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.

 10/3/06

Signature and Date

Garick

Installing Subcontractor (Co. Name)  
OR General Contractor (Co. Name) OR Owner

COPY TO: Building Department  
HERS Rater (if applicable)  
Building Owner at Occupancy

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