

TRANSMISSION VERIFICATION REPORT

TIME : 08/04/2006 14:39  
NAME : CITY OF SACRAMENTO  
FAX : 9168085543  
TEL : 9168085656  
SER.# : BROH4J832840

DATE, TIME 08/04 14:38  
FAX NO./NAME 97371117  
DURATION 00:01:15  
PAGE(S) 03  
RESULT OK  
MODE STANDARD  
ECM

*Ca Zenger*

**CITY OF SACRAMENTO  
CASHIER'S WORKSHEET**

\*COPY\* 08/04/2006

RECEIPT NUMBER: R0614360

TRANSACTION DATE: 08/04/2006  
TRANSACTION AMOUNT: 187.45  
NOTATION:

**ISSUED**  
**CITY OF SACRAMENTO**  
AUG 04 2006  
**DOWN TOWN PERMIT  
CENTER**

APD #: **0611927**  
SITE ADDRESS: 2016 BIDWELL WY SAC  
PARCEL: 012-0233-016.

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	187.45

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	2.00	.00	2.00
207	Strong Motion (SMI)	1600	.50	.00	.50
213	General Plan Surcharge	1760	2.95	.00	2.95
259	Bldg-Technology Surcharg	1750	7.00	.00	7.00

Building Permit

City of Sacramento



PLANNING & BUILDING DEPARTMENT BUILDING DIVISION (916) 808-BLDG (2534)

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

ISSUED CITY OF SACRAMENTO AUG 04 2006

Permit No: 0611927 Date Issued: Total Amount: \$187.45 Area: 2 Site Address: 2016 Bidwell Nature of Work: Replace

DOWNTOWN PERMIT CENTER

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: Leader's Address:

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect. License Class: C-20 License Number: 747908 Date: 8-3-06 Signature: [Signature]

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 3 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 owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec. B & PC for this reason: Date: Owner Signature:

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvements 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: 8-3-06 Applicant/Agent Signature: [Signature]

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

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued. I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are: Carrier: STATE FUND Policy Number: 1686143-06 Expiration Date: 4-07

(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: 8-3-06 Applicant Signature: [Signature]

WARNING: FAILURE TO SECURE WORKERS 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 A FORTY PERCENT PENALTY.

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

City of Sacramento

1061927

# FAXBACK PERMIT APPLICATION

(certain restrictions apply)

Faxed request received in this office before 3:00 p.m. will be processed the following work day. Contractors must have a current certificate of Worker's Compensation Insurance. Work started before a Building Permit is issued will be subject to quad fees.



Fax # (916) 264-1901

Permits requiring plan review are not eligible for FAXBACK

In order to process this request, ALL of the following information MUST be provided:

RESIDENTIAL  APARTMENTS (4+ units per building)  COMMERCIAL (limited)

Job Address: 2016 Bidwell Way Sacramento, CA 95818 Unit # \_\_\_\_\_  
 Contract Price \$ \_\_\_\_\_

CONTACT PERSON: ROGER KUBBY CONTACT PHONE: 916 737-7107  
 Property Owner: SASHA ABRANSKI License # 747568  
 Address: 2016 Bidwell Way  
 City/State/Zip: Sacramento, CA 95818  
 Phone: 916 737-1107 FAX: 916 737-1117

NATURE OF WORK: (Provide detailed description of work & indicate type of work in selections below.)

Description of Work: Remove existing HVAC Split System Replace with New Split HVAC

<input type="checkbox"/> REROOF (excluding tile) <input type="checkbox"/> TEAR-OFF <input type="checkbox"/> RESHEET <input type="checkbox"/> HOUSE # SQUARES 1 2 3+ <input type="checkbox"/> GARAGE <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	(Residential ONLY) <input checked="" type="checkbox"/> NEW HVAC INSTALLATIONS <input type="checkbox"/> CHANGE-OUT <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"/> Fire Place insert <input type="checkbox"/> Other (describe below) Value of duct work: Equipment: \$ <u>500</u> Cut-In: \$ _____	(Residential ONLY) <input type="checkbox"/> WATER HEATER <input type="checkbox"/> GAS <input type="checkbox"/> ELECTRIC <input type="checkbox"/> Change-out <input type="checkbox"/> Electric to Gas <input type="checkbox"/> Relocate <input type="checkbox"/> New <input type="checkbox"/> DRY ROT OR TERMITES DAMAGE REPAIR <input type="checkbox"/> Flooring/Joists <input type="checkbox"/> Mud sill/Studs <input type="checkbox"/> Roof Structure <input type="checkbox"/> Exterior <input type="checkbox"/> Design Review approval may be required.	(Residential ONLY) MINOR ELECTRIC and/or MINOR PLUMBING <input type="checkbox"/> Electric Service Change # amps <input type="checkbox"/> New electric circuits <input type="checkbox"/> Re-wire <input type="checkbox"/> Replacement <input type="checkbox"/> Water Service <input type="checkbox"/> Sewer Service <input type="checkbox"/> Gas Line <input type="checkbox"/> Re-plumb <input type="checkbox"/> Water <input type="checkbox"/> Waste
* Design Review approval may be required.		*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.	

IVR Feedback Permit updated 12/08/05

12-3:30

Installation Certificate Prescriptive Method - HVAC-only Alteration CF-6R-ALT

Project Title: <b>SASHA ABRAMSKY</b>	Date: <b>7-30-06</b>	© 2005 CalCERTS
Project Address: <b>2016 Bidwell Way</b>	Climate Zone:	Enforcement Agency Use Only
Installing Contractor: <b>CALIFORNIA ENERGY SERVICES</b>	Telephone: <b>916-996-1283</b>	Building Permit #
Company Name: <b>CALIFORNIA ENERGY SERVICES</b>		Plan Check Date
		Field Check Date

IMPORTANT: This CF-6R form is only for use when an HVAC-only alteration is made to an existing home. Use one form for each system being altered. This is system # 1 of 1 systems altered in this house. Copies to: Homeowner, HERS Rater, and Building Department

List the specifications for the newly installed equipment. These must match the installed equipment exactly. Installed equipment must match type/location and meet or exceed efficiencies/R-values from CF-1R.

Equipment Type	Manufacturer	Model Number	Efficiency	Load**	Capacity***
* Furnace	Bryant	355AAU060080	AFUE 96%	76,800	76,800
Heat Exchanger			N/A		
Heat Pump fan coil			N/A		
Hydronic fan coil			N/A		
Other FAU					
Describe					
Package gas/AC			AFUE SEER		
Package heatpump			HSPF SEER EER*		
* A/C Condenser	Bryant	187AAU048000	SEER 15.0	48,000	48,000
Heatpump Condenser			HSPF SEER		
* Indoor DX coil	ADP	PT9648	EER*	48,000	48,000
Hydronic coil					

\* Provide EER if needed for compliance (line 24 of CF-1R-ALT). Installer must provide adequate documentation to verify EER. In some cases the specific furnace may need to be verified in order to achieve a specific EER. In some cases a time delay relay and/or TXV may need to be verified in order to achieve a specific EER.  
 \*\* Loads are sensible for cooling.  
 \*\*\* Capacities are sensible at design conditions for cooling and adjusted (altitude, downflow, etc.) output for heating.

TXV:  
 If TXV is required by the CF-1R form (line 23 on CF-1R-ALT form), it has been installed and access has been provided for visual verification by HERS rater. Sampling is allowed for TXV verification.

Entirely New Duct System: (Line 5 of CF-1R ALT)  
 For Entirely new duct systems, the required leakage is 6% rather than 15% for altered systems. The alternative to duct sealing by increasing the efficiency of the equipment is not an option for entirely new duct systems.

I, the undersigned, verify that the equipment listed above is: 1) the actual equipment installed in the home; 2) equal to or more efficient than required by the Certificate of Compliance (CF-1R-ALT Form); and 3) equipment that meets or exceeds the appropriate requirements for manufactured devices (Appliance Efficiency Standards), where applicable.  
 I, the undersigned, verify that diagnostic test results listed on this form were performed in conformance with the requirements for compliance and that the newly installed or retrofitted mechanical system components conform with the Mandatory requirements specified in Section 150(m) of the 2005 Building Energy Efficiency Standards.

Signed (Installer): *Roger Kirby* Date: 7-30-06

Notes:

Project Title: <b>SASHA ABRAMSKY</b>	Date: <b>7-30-06</b>	© 2005 CalCERTS
<p><b>IMPORTANT:</b> This CF-6R form is only for use when an HVAC-only alteration is made to an existing home. Use one form for each system being altered. This is system # <u>1</u> of <u>1</u> systems altered in this house. Copies to: Homeowner, HERS Rater, and Building Department</p>		
<p><b>Duct Leakage test Results (if duct testing is required per CF-1R-ALT form)</b></p>		
<p><b>Step 1 - Pre-test: Leakage of the system before any alterations. This test is optional and is only used for the 60% reduction option</b></p>		
1	Pre-test leakage:	CFM25
2	Line 1 x 0.4 =	target for 60% reduction
<p><b>Step 2 - Determine Total System Fan Flow. Use any of these methods. Use values for equipment after alterations.</b></p>		
3	Cooling: Condenser tonnage: <b>4</b> tons x 400 CFM/ton =	<b>1600</b> CFM
4	Heating: Furnace output: Btuh x .0217 CFM/Btuh =	CFM
5	Measured: (refer to ACM Manual Appendix RE, section 4.1) =	CFM
6	Measurement method: <input type="checkbox"/> flow hood <input type="checkbox"/> plenum pressure matching <input type="checkbox"/> flow grid	
7	Total system fan flow value to be used:	<b>1600</b> CFM may use highest of lines 3, 4, or 5.
<p><b>Step 3 - Determine Targets:</b></p>		
8a	Total System fan flow (line 7 from above) x 0.06 =	CFM25 = 6% leakage target (new duct systems)
8b	Total System fan flow (line 7 from above) x 0.15 =	<b>240</b> CFM25 = 15% leakage target
9	Total System fan flow (line 7 from above) x 0.10 =	CFM25 = 10% leakage to outside target
<p><b>Step 4 - Alterations: Must be consistent with the CF-1R form.</b></p>		
10	<input checked="" type="checkbox"/> Seal all new connections with approved materials.	
11	<input checked="" type="checkbox"/> No newly constructed portions of the system can have unducted building cavities to convey system air.	
12	<input type="checkbox"/> If adding or replacing more than 40 feet of duct, insulate new ducts per package D for that climate zone	
<p><b>Step 5 - Final Leakage (regular duct leakage test, for 15% total and 60% reduction)</b></p>		
13	leakage =	<b>224</b> CFM25 refer to 2005 ACM appendix RC, Sections RC 4.3.1
14a	<input type="checkbox"/> If line 13 is less than line 8a, house passes the 6% leakage requirement. Go to Step 9.	
14b	<input checked="" type="checkbox"/> If line 13 is less than line 8b, house passes the 15% leakage requirement. Go to Step 9.	
15	<input type="checkbox"/> If line 13 is less than line 2, house passes the 60% reduction requirement, continue.	
16	<input type="checkbox"/> If either of lines 14a, 14b or 15 are checked, HERS verification is required. Sampling can be used.	
17	<input type="checkbox"/> If line 15 is checked, but not 14a or 14b, Smoke Test and Visual Inspection of Accessible Duct Sealing is required. Go to Step 8	
<p><b>Step 6 - Leakage to Outside: Similar to a regular duct blaster test but the house is pressurized to 25 pascals at the same time.</b></p>		
18	leakage =	CFM25 refer to 2005 ACM appendix RC, Sections RC 4.3.3
19	<input type="checkbox"/> If line 18 is less than line 9, house passes the 10% leakage to outside requirement.	
20	<input type="checkbox"/> If line 19 passes, HERS verification is required. Sampling can be used.	
<p><b>Step 7 - If the house does not pass any of lines 14, 15 or 19.</b></p>		
21	<input type="checkbox"/> Smoke Test and Visual Inspection of Accessible Duct Sealing is required. See Step 8.	
22	<input type="checkbox"/> Install required label per ACM Appendix RC, Sections RC.4.3.5.	
<p><b>Step 8 - Smoke Test and Visual Verification (See 2005 Residential ACM Appendix RC, Sections RC 4.3.5-7)</b></p>		
23	<input type="checkbox"/> Perform smoke test per ACM Appendix RC, Sections RC 4.3.6.	
24	<input type="checkbox"/> Perform Visual Inspection and repair of excessively damaged ducts per ACM Appendix RC, Sections RC 4.3.7.	
25	<input type="checkbox"/> Seal register boots to surrounding material per ACM Appendix RC, Sections RC 4.3.7.	
<p><b>HERS Verification</b></p>		
26	<input checked="" type="checkbox"/> If line 14 is checked. 15% leakage to be verified by HERS rater. Sampling is allowed.	
27	<input type="checkbox"/> If line 15 is checked. 60% leakage reduction to be verified by HERS rater (post test only) AND Smoke Test and Visual Verification to be performed by HERS Rater. Sampling is allowed.	
28	<input type="checkbox"/> If line 19 is checked. 10% leakage to outside to be verified by HERS rater. Sampling is allowed.	
29	<input type="checkbox"/> If none of lines 14, 15 or 19 are checked Smoke Test and fix all accessible leaks. No sampling allowed.	
<p><b>Sampling - Only if house passes on lines 14, 15 or 19.</b></p>		
30	<input type="checkbox"/> 1.) Homeowner chooses to be put into a group of homes for random third party HERS sampling. 2.) Homeowner, installer and rater must sign the three-party agreement. 3.) All above tests must be completed by the installer or their representative, not the third party rater.	
<p><b>No Sampling - House does not pass by lines 14, 15 or 19; OR homeowner chooses not to be part of a sample group</b></p>		
31	<input type="checkbox"/> 1.) House to be tested by a third party HERS rater selected by installer. 2.) Homeowner, installer and rater must sign the three-party agreement. 3.) All above tests may be completed by the installer or their representative, and then verified by a third party rater. OR, all above tests may be performed solely by the third party rater.	
32	<input type="checkbox"/> 1.) House to be tested by third party HERS rater selected by homeowner. 2.) All above tests may be completed by the installer or their representative, and then verified by a third party rater. OR, all above tests may be performed solely by the third party rater.	

Certificate of Compliance Prescriptive Method - HVAC-only Alteration CF-1R-ALT

Project Title: <b>SASHA ABRAMSKY</b>	Date: <b>7-30-2006</b>	© CalCERTS 2005
Project Address: <b>2016 Bidwell Way</b>	Climate Zone: <b>12</b>	Enforcement Agency Use Only
Documentation Author: <b>ROGER KILBY</b>	Telephone: <b>916-996-1283</b>	Building Permit #
Company Name: <b>CALIFORNIA ENERGY SERVICES</b>		Plan Check Date
		Field Check Date

**IMPORTANT:** This CF-1R-ALT form is only for use when an HVAC-only alteration is made to an existing home. Use one form for each system being altered. This is system # 1 of 1 systems altered in this house.

**Check all lines that apply. Check only lines that apply.**

Scope of Alterations:

- 1  An Air Handler is to be installed or replaced. Duct sealing to be determined. Continue to next line.
- 2  A Furnace Heat exchanger is to be installed or replaced. Duct sealing to be determined. Continue to next line.
- 3  An outdoor condensing unit is to be installed or replaced. Duct Sealing and/or TXV(RCA) to be determined. Continue to next line.
- 4  A cooling or heating coil is to be installed or replaced. Duct Sealing and/or TXV(RCA) to be determined. Continue to next line.
- 5  More than 40 feet of new or replacement duct are to be installed in unconditioned space. Duct sealing to be determined.  
 Check here if the entire duct system is also to be new or replaced. Continue to next line.
- 6  If none of lines 1-5 are checked, neither Duct Sealing nor TXV(RCA) are required. Go to Section 5.

**Section 1 - Duct Sealing (Only if any of Lines 1, 2, 3, 4 or 5 are checked. Skip if Line 6 is checked.)**

- 7  This system is in Climate Zone 1, 3, 4, 5, 6, 7, or 8. No duct sealing is required. Go to Section 2.
- 8  This system has less than 40 feet of ducts in unconditioned space. No duct sealing is required. Go to Section 2.
- 9  This system was previously sealed and tested, and was certified by a HERS rater. No duct sealing is required. Attach previous CF-4R form. Go to Section 2.
- 10  This duct system is sealed or insulated with asbestos. No duct sealing is required. Go to Section 2.

Note: If the entire duct system is to be new or replaced, Lines 11-14 do not apply.

- 11  In Climate Zones 2, 12 and 16: An 0.92 AFUE furnace will be installed in lieu of duct sealing (and TXV, if applicable).
- 12  In Climate Zones 10, 13 and 15: An SEER 14 AND EER 12 condenser will be installed with TXV(RCA) AND added duct insulation (R-4 wrap on existing ducts, R-8 new ducts) in lieu of duct sealing. Go to Section 2.
- 13  In Climate Zones 9, 10, 11, 13, 14, or 15: An SEER 14 AND EER 12 condenser will be installed with TXV(RCA) AND a 0.92 AFUE furnace will be installed in lieu of duct sealing. Go to Section 2.
- 14  In Climate Zones 2, 9, 11, 12, 14 or 16: An SEER 14 AND EER 12 condenser will be installed with TXV(RCA) AND an 0.82 AFUE furnace will be installed with increased duct insulation in lieu of duct sealing. Go to Section 2.
- 15  None of lines 7-14 above are checked. Duct Sealing is Required. Continue.

**Section 2 - TXV(RCA) (Only if Lines 3 or 4 are checked, otherwise got to Section 3)**

- 16  The system being altered is a package unit. No TXV(RCA) is required. Go to Section 3.
- 17  This system is in Climate Zone 8 and a 14 SEER air conditioner or 0.82 AFUE furnace is being installed. No TXV(RCA) is required. Go to Section 3.
- 18  This system is in Climate Zone 1, 3, 4, 5, 6, or 7. No TXV(RCA) is required. Go to Section 3.
- 19  This system is in Climate Zone 16 and line 14 is not checked. No TXV(RCA) is required. Go to Section 3.
- 20  This system is in Climate Zone 16 and line 14 is checked and not line 16. TXV(RCA) is required. Go to Section 3.
- 21  This system is in Climate Zone 2 or 8-15 and line 11, 16 or 17 is not checked. TXV(RCA) is required. Go to Section 3.

**Section 3 - HERS Rater verification**

- 22  If line 15 is checked, HERS verification is required for Duct Sealing.
- 23  If line 12, 13, 14, 20 or 21 are checked and not line 16 or 17, HERS verification is required for TXV(RCA).
- 24  If line 12, 13 or 14 are checked, HERS verification is required for 12 EER.

**Section 4 - Equipment Efficiencies**



- 25  If lines 11, 12, 13, 14 or 17 are checked, upgraded equipment efficiencies are required. List in Section 6.

**Section 5 - Duct R-Values**

- 26  If more than 40 feet of duct is being installed or replaced, duct R-value must meet or exceed Package D requirements.
- 27  If less than 40 feet of duct is being installed or replaced, duct R-value must meet or exceed R-4.2

Section 6 - see next page

**Certificate of Compliance Prescriptive Method - HVAC-only Alteration CF-1R-ALT**

Project Title: <b>SASHA ABRAMSKY</b>		Date: <b>7-30-06</b>	© CalCERTS 2005
<p align="center"><b>IMPORTANT:</b> This CF-1R-ALT form is only for use when an HVAC-only alteration is made to an existing home. Use one form for each system being altered. This is system # <u>1</u> of <u>1</u> systems altered in this house.</p>			
<p><b>Section 6 - Minimum Requirements for Equipment to be Installed/Altered.</b>                  Installed equipment must match type/location and meet or exceed efficiencies/R-values.</p>			
28	Configuration: <input checked="" type="checkbox"/> Split system <input type="checkbox"/> Package Unit		
29	<input checked="" type="checkbox"/> Air Handler	<input checked="" type="checkbox"/> Gas furnace, AFUE: <b>80%</b>	<input type="checkbox"/> Heatpump FAU <input type="checkbox"/> Hydronic FAU <input type="checkbox"/> Other
30	<input type="checkbox"/> Heat Exchanger		
31	<input checked="" type="checkbox"/> Outdoor Condensing Unit	<input checked="" type="checkbox"/> A/C <input type="checkbox"/> Heatpump	Efficiency SEER/HSPF: _____ EER (if reqd): _____
32	<input checked="" type="checkbox"/> Cooling or heating coil	<input checked="" type="checkbox"/> A/C <input type="checkbox"/> Heatpump <input type="checkbox"/> Hydronic	
33	<input checked="" type="checkbox"/> Ducts	Location: <b>BASEMENT</b>	Length (ft): <b>0</b> R-value: <b>4.2</b>
All mandatory measures apply to any altered component. See MF-1R - ALT form.			
<p><b>Compliance Statement:</b>                  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 project responsibility. The undersigned recognizes that compliance using duct sealing, verification of refrigerant charge, and TXV require installer testing and certification and verification by an approved HERS rater.</p>			
<b>Home Owner or Authorized Agent</b>		<b>Documentation Author</b>	
Name: <b>SASHA ABRAMSKY</b>		Name: <b>ROGER Kilby</b>	
Address: <b>2016 Bidwell way</b>		Company Name: <b>CALIFORNIA ENERGY SERVICES</b>	
City/State/Zip: <b>SACRAMENTO, CA 95815</b>		Address: <b>8184 ALPINE AVE</b>	
Phone: <b>916-558-1598</b>		City/State/Zip: <b>SACRAMENTO, CA 95826</b>	
		Phone: <b>916-996-1283</b>	
Signature: 		Signature: 	
<b>Enforcement Agency (Building Department)</b>		<b>Notes/Comments:</b>	
Name:			
Title:			
Department:			
Phone #:			
Fax #:			
Signature or Stamp:			
<p><b>Required forms:</b>                  CF-1R-ALT: by anyone. Required at time of permit application. Copies to home owner, enforcement agency, HERS rater.                  CF-6R-ALT: by installing contractor. Required to close permit. Copies to home owner, enforcement agency, HERS rater.                  CF-4R-ALT: by HERS rater. Required to close permit. Copies to home owner, enforcement agency, installer. The CF-4R forms for a sample group shall not be released until all testing and verification is completed and passed for the entire group.</p>			

Project Title: <b>SASHA ABRAMSKY</b>		Date: <b>7-31-06</b>	© 2005 CalCERTS
Project Address: <b>2016 Bidwell Way</b>		Climate Zone: <b>12</b>	Enforcement Agency Use Only
Installing Contractor: <b>California Energy Services</b>		Telephone: <b>916-996-1283</b>	Building Permit #
CalCERTS Rater Name: <b>Michael Nguyen</b>		Telephone: <b>415-994-3736</b>	Plan Check Date
Rater's Company Name: <b>Elite Conservation Services</b>		CalCERTS Rater ID #: <b>CC2004733</b>	Field Check Date

**IMPORTANT:** This CF-4R-ALT form is only for use when an HVAC-only alteration is made to an existing home. Use one form for each system being altered. This is system # 1 of 1 systems altered in this house. Do not release CF-4Rs for a sample group until all verification and testing in the group is completed and passed. Copies to: Homeowner, Installer, and Building Department

Hers Rater Compliance Statement:  
As the HERS rater providing diagnostic testing and field verification, I certify that the house identified on this form complies with the diagnostic testing compliance requirements as checked  on this form. I also certify that I have followed all protocols and procedures as required by the CalCERTS Rater Agreement.

Signed: *Michael Nguyen*

Sampling  First test  Re-test (attach previous CF-4R-ALT)

This house is **NOT** part of a sample group.

This house passes all necessary tests. (Rater to sign HERS rater compliance statement above).

This house did NOT pass the necessary tests. Retest required. See notes below and next page.

This house is part of a sample group. Other houses in the group include (max 6):

Home owner's last name/Street address/City

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

5) \_\_\_\_\_

6) \_\_\_\_\_

This house passes all necessary tests. (Rater to sign HERS rater compliance statement above). All homes in sample group will be issued CF-4R certificates from CalCERTS registry.

This house did NOT pass the necessary tests. Retest required. See notes below and next page.

This is the first house to fail in this group. (Select one of the above homes for second test).

This is the second house to fail in this group. All homes in group must be tested.

Notes:

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Certificate of Field Verification  
and Diagnostic Testing

Prescriptive Method -  
HVAC-only Alteration

CF-4R-ALT

Project Title: <b>SASHA ABRAMSKY</b>		Date: <b>7/31/06</b>	© 2005 CalCERTS
<p><b>IMPORTANT:</b> This CF-4R-ALT form is only for use when an HVAC-only alteration is made to an existing home Use one form for each system being altered. This is system # <u>1</u> of <u>1</u> systems altered in this house. Copies to: Homeowner, Installer, and Building Department</p>			
<p>Rater to verify only results of test that passed on CF-6R-ALT form. See lines 26 to 29 of CF-6R-ALT form. Results must be uploaded to CalCERTS Registry for issuance of final certificate per Title 20.</p>			
Step 1 - Pre-test: Leakage of the system before any alterations. (Only if line 27 is checked on the CF-6R-ALT form.)			
1	Pre-test leakage:	CFM25	From Line 1 of CF-6R-ALT form.
2	Line 1 x 0.4 =		Target for 60% reduction
Step 2 - Determine Total System Fan Flow: Use any of these methods. (Only if lines 26, 27 or 28 are checked on CF-6R-ALT form)			
3	Cooling: Condenser tonnage: <u>4</u> tons x 400 CFM/ton =	<u>1600</u>	CFM
4	Heating: Furnace output: Btuh x .0217 CFM/Btuh =		CFM
5	Measured: (refer to ACM Manual Appendix RE, section 4.1) =		CFM
6	Measurement method: <input type="checkbox"/> flow hood <input type="checkbox"/> plenum pressure matching <input type="checkbox"/> flow grid		
7	Total system fan flow value to be used:	<u>1600</u>	CFM may use highest of lines 3, 4, or 5.
Step 3 - Determine Targets: (Only if lines 26 or 28 are checked on CF-6R-ALT form)			
8a	Total System fan flow (line 7 from above) x 0.06 =		CFM25 = 6% leakage target
8b	Total System fan flow (line 7 from above) x 0.15 =	<u>240</u>	CFM25 = 15% leakage target
9	Total System fan flow (line 7 from above) x 0.10 =		CFM25 = 10% leakage to outside target
Step 4 - Alterations: Must be consistent with the CF-1R form.			
10	<input checked="" type="checkbox"/> Verify that all new connections are sealed with approved materials.		
11	<input checked="" type="checkbox"/> No newly constructed portions of the system can have unducted building cavities to convey system air.		
12	Duct insulation to be checked by local code enforcement agency.		
Step 5 - Total Leakage (Only if lines 26 or 27 are checked on CF-6R-ALT form)			
13	leakage = <u>224</u>	CFM25	refer to 2005 ACM appendix RC, Sections RC 4.3.1
14a	<input type="checkbox"/> If line 13 is less than line 8a, house passes the 6% leakage requirement. Go to Step 9		
14b	<input checked="" type="checkbox"/> If line 13 is less than line 8b, house passes the 15% leakage requirement. Go to Step 9		
15	<input type="checkbox"/> If line 13 is less than line 2, house passes the 60% reduction requirement after line 17 is checked.		
16	<input type="checkbox"/> This house does not yet pass the necessary tests. Retest required. Attach new CF-4R-ALT. See notes, below.		
17	<input type="checkbox"/> If line 15 is checked, but not 14a or 14b, Smoke Test and Visual Inspection of Accessible Duct Sealing is required. Go to Step 8		
Step 6 - Leakage to Outside: (Only if line 28 is checked on CF-6R-ALT form)			
18	leakage =	CFM25	refer to 2005 ACM appendix RC, Sections RC 4.3.3
19	<input type="checkbox"/> If line 18 is less than line 9, house passes the 10% leakage to outside requirement.		
20	<input type="checkbox"/> This house does not yet pass the necessary tests. Retest required. Attach new CF-4R-ALT. See notes, below.		
Step 7 - (If line 29 is checked on the CF-6R-ALT form.)			
21	<input type="checkbox"/> Smoke Test and Visual Inspection of Accessible Duct Sealing are required.		
22	<input type="checkbox"/> Install required label per ACM Appendix RC, Sections RC 4.3.5.		
23	<input type="checkbox"/> House can NOT be part of a sample.		
	<input type="checkbox"/> This house does not yet pass the necessary tests. Retest required. Attach new CF-4R-ALT. See notes, below.		
Step 8 - Smoke Test and Visual Verification (Only if lines 27 or 29 are checked on CF-6R-ALT form)			
24	<input type="checkbox"/> Perform smoke test per ACM Appendix RC, Sections RC 4.3.6.		
25	<input type="checkbox"/> Perform Visual Inspection and verify repair of excessively damaged ducts per ACM Appendix RC, Sections RC 4.3.7.		
26	<input type="checkbox"/> Verify that register boots are sealed to surrounding material per ACM Appendix RC, Sections RC 4.3.7.		
Step 9 - TXV(RCA)			
27a	<input type="checkbox"/> If TXV is required by the CF-1R form (line 23 on CF-1R-ALT form), it has been installed and access has been provided for visual verification by HERS rater.		
27b	<input type="checkbox"/> If "Refrigerant Charge and Airflow" (see ACM appendix RD) was done in lieu of TXV, attach completed pages 3 of 8 and 4 of 8 from the CEC's CF-4R form.		
Step 10 - Upgraded Equipment Efficiencies			
28	<input type="checkbox"/> If upgrade equipment efficiencies are required (line 24 of CF-1R-ALT) HERS rater to verify necessary make and model number of equipment. Installing contractor to provide rater adequate documentation to verify efficiencies.		
Notes: refer to line numbers above			