

Site Address: 7513 HIGHWIND WY SAC
Parcel No: 031-0880-036

PAID
CITY OF SACRAMENTO
SEP 29 2006
NEW CITY HALL
Sub-Type: RES
Using (Y/N): N

CONTRACTOR
HOT & COLD HEAT & AIR
6 WATERFRONT CT
SACRAMENTO CA 95831

OWNER
REDONDO MARK JASON/RAQUEL
7513 HIGHWIND WY
SACRAMENTO, CA 95831

Nature of Work: HVAC CHANGE OUT CONVERSION FROM ELECTRIC TO GAS SPLIT SYSTEM ** GAS TEST REQUIRE**

CONSTRUCTION LENDING AGENCY: I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name _____ Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class X B+C-20 License Number 414387 Date X 9/29/06 Contractor Signature X Kent Danielson

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

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

I am exempt under Sec. _____ B & PC for this reason: _____

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 mentioned property for inspection purposes.

Date X 9/29/06 Applicant/Agent Signature X Kent Danielson

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 NO EMPLOYEES Policy Number _____ Exp Date _____

X (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 X 9/29/06 Applicant Signature X Kent Danielson

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

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



CITY OF SACRAMENTO

www.cityofsacramento.org

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

Inspection Request: 1-916-808-7622

New City Hall
915 I Street, 3rd Floor
Sacramento, CA 95814
North Permit Center
2101 Arena Blvd., Suite 200
Sacramento, CA 95834

Fax # 916-808-1901

MINOR PERMIT APPLICATION

Date: 9/29/06

Faxed/web 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: 7513 Highwind Wy, Sac 95831 RESIDENTIAL APARTMENTS (4+ units per building) COMMERCIAL (limited)
 CONTACT INFO Name: _____ Phone #: _____ Unit # _____ Contract Price 8400

Property Owner: Mark & Raquel Redardo Contractor: Kent Danielson License #: 414387
 Address: 7513 Highwind Wy Address: 6 Waterfront Ct
 City/State/Zip: Sac CA 95831 City/State/Zip: Sac. CA 95831
 Phone: 392-7846 Phone: 505-8534 Fax: 422-3789

Nature of Work: Provide description of work & indicate type of work in selections below. Pre-Registered? YES NO Registration # _____

Description of Work: Change out Split System Heat Pump to Split System Gas

<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 checked="" type="checkbox"/> HVAC Installations (Residential Only) <input 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"/> Out-in <input checked="" type="checkbox"/> Heat pump or elect. unit to gas. <input type="checkbox"/> Wall furnace <input type="checkbox"/> Other (describe below) Value of duct work: <u>0</u> Equipment: \$ _____ Cut-in: \$ <u>0</u>	<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"/> Dry Rot or Termitic Damage Repair <input type="checkbox"/> Flooring/Joists <input type="checkbox"/> Mudsill/Strnds <input type="checkbox"/> Roof Structure <input type="checkbox"/> Exterior	<input type="checkbox"/> Minor Electric and/or Minor 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 #: <u>0615231</u>

Minor permit sm1 form - 04/7/005

0615 231

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

Project Address 7513 Highwind Way 95831	Builder or Installer Name Hot & Cold Heating & Air
Builder or Installer Contact Kent Danielson (916) 412-3729	Final/Permit (Additions or Alterations) Number
HERS Rater Rebecca Overstreet (916) 257-0777	Sample Group Number
Completion Method (Construction)	Climate Zone 12
Certification System 10/2/06	Sample House Number
HERS Provider CH2S	
Street Address 7513 6th St	City/State/Zip Ridgely, CA 95073

Copy to: BUILDER, HERS PROVIDER AND BUILDING DEPARTMENT

HERS RATER COMPLIANCE STATEMENT
 The house was: Tested Approved as per sample testing, but was not tested
 As the HERS rater providing diagnostic testing and testing, I certify that the house identified on this form complies with the diagnostic testing requirements as stated in the HERS Rater Test Check and verify that the new distribution system is fully tested and correct type ductwork. The CF-4R may be released on every tested building. The HERS rater must and release the CF-4R and a properly completed signed CF-4R to be kept received for the sample and tested buildings.

The installer has provided a copy of the CF-4R (test) to the HERS rater.
 New ducts are fully ducted and sealed with mastic and fabric tape.
 New ducts with cloth backed, rubber adhesive sealant are used in combination with cloth backed, rubber adhesive sealant.

MINIMUM REQUIREMENTS FOR DUCT LEAKAGE TESTING AND COMPLIANCE CREDIT
 Procedures for field verification and diagnostic testing of air distribution systems are available in RACM, Appendix RC4.3.

Duct Diagnostic Leakage Test

NEW CONSTRUCTION:	Measured Values	Pass	Fail
1 Enter Tested Leakage Flow in CFM:			
2 Fan Flow: Calculated (Nominal)	1400	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 Fan Flow Leakage Percentage < 6% [100 x L (Line # 2)]		<input type="checkbox"/>	<input type="checkbox"/>
ALTERATIONS: Duct System and/or HVAC Equipment Change-Out			
4 Enter Tested Leakage Flow in CFM from CF-4R: Pre-Test of Existing Duct System Prior to Duct System Alteration and/or Equipment Change-Out.			
5 Enter Tested Leakage Flow in CFM: Fan Test of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.	190	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6 Enter Leakage to Outside Percentage for Altered Duct System (Only if Applicable)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7 Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		<input type="checkbox"/>	<input type="checkbox"/>
8 Enter Leakage to Outside Percentage for Altered Duct System (Line # 7)		<input type="checkbox"/>	<input type="checkbox"/>
TEST OR VERIFICATION STANDARDS For Altered Duct System and/or HVAC Equipment Change-Out		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9 Pass if Leakage Percentage < 15% [100 x L (Line # 5) / 1400 (Line # 2)]	131	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10 Pass if Leakage to Outside Percentage < 10% [100 x L (Line # 7) / (Line # 2)]		<input type="checkbox"/>	<input type="checkbox"/>
11 Pass if Leakage Reduction Percentage > 60% [100 x L (Line # 6) / (Line # 4)]		<input type="checkbox"/>	<input type="checkbox"/>
12 Pass if Reduction of Air Access to Leaky and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/>	<input type="checkbox"/>
Pass if One of Lines # 9 through # 12 pass		<input type="checkbox"/>	<input type="checkbox"/>

Residential Compliance Form
 Kent Danielson

December 2005

CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 3 of 11) CP-4R

Project Address 7573 Highland Way 95031	Builder Name Hot Cold Heating & Air
Builder Contact Kent Danielson (96) 022 3109	Plan Number
HEERS Judge Rebecca Olmstead (916) 257 0777	Sample Group Number
Compliance Method (Specification)	Climate Zone 12
Certifying Signature <i>[Signature]</i> Date 10/2/06	Sample House Number
Firm Olmstead HEERS K&E	HEERS Provider CHEERS
Street Address 7573 4th St	City/State/Zip Redlands, CA 95073

Copies for: BUILDER, HEERS PROVIDER AND BUILDING DEPARTMENT

HEERS RATER COMPLIANCE STATEMENT

The house was: Tested Approved without sample testing, but was not tested

As the HEERS rater providing diagnostic testing and/or sample testing, I hereby certify that the house identified on this form complies with the diagnostic testing compliance requirements as outlined in the RACM, Appendix R1.

The installer has provided a copy of CP-4R (Installation Certificate).

THERMOSTATIC EXPANSION VALVE CHARGE MEASUREMENT

Procedures for field verification are available in RACM, Appendix R1.

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Access is provided to the TXV for inspection. The procedure shall consist of inspecting the TXV is installed in accordance with the manufacturer's instructions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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REFRIGERANT CHARGE MEASUREMENT

Verification for Recycled Refrigerant Charge Measurement Systems without Thermostatic Expansion Valves

Outdoor Unit Serial #	
Location	
Outdoor Unit Make	
Outdoor Unit Model	
Cooling Capacity	Btu/hr
Date of Verification	
Date of Gauge Calibration	(to be checked)
Date of Manifold Calibration	(to be checked)

Standard Charge Measurement Procedure is detailed in RACM, Appendix R12.

Note: The system should be installed and charged in accordance with the manufacturer's specifications and installation verification shall be documented on CP-4R before starting this procedure. If outdoor air dry-bulb is below 55 °F rater shall use the Alternative Charge Measure Procedure

Procedures for Determining Refrigerant Charge using the Standard Method are available in RACM, Appendix R12.

Yes No A copy of CP-4R (Installation Certificate) has been provided with refrigerant charge measurement documented.

Kent Danielson

Residential Compliance Review

April 2005

INSTALLATION CERTIFICATE	(Page 3 of 12) CF-6R
Site Address 7513 Highwind Way	Permit Number 95831

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 10-103(a).

HVAC SYSTEMS:

Heating Equipment

Equip Type (pkg. heat pump)	CBC Certified Mfr. Name and Model Number	# of Identical Systems	Efficiency (AFUE, etc.) ¹ (≥CF-IR value)	Duct Location (attic, etc.)	Duct or Piping R-value	Heating Load (Btu/hr)	Heating Capacity (Btu/hr)
Split	TRANE TLW1600A90Z1A0	1	87.1	attic	R-6		

Cooling Equipment

Equip Type (pkg. heat pump)	CBC Certified Mfr. Name and Model Number	# of Identical Systems	Efficiency (SEER or EER) ¹ (≥CF-IR value)	Duct Location (attic, etc.)	Duct R-value	Cooling Load (Btu/hr)	Cooling Capacity (Btu/hr)
Split	TRANE CTR-4042A90A0	1	14.5	attic	R-6	40000	42000

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-IR) 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	
Signature: Hertel Jansen	Date: 10/2/06

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

Site Address: 7513 High Wind way 95831 Permit Number: _____

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 FOR NEW DUCTS:
 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 on new ducts.

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

NEW CONSTRUCTION:		Measured Values	
1	Enter Tested Leakage Flow in CFM:		
2	Fan Flow: Calculated (Nominal: <input checked="" type="checkbox"/> Cooling <input type="checkbox"/> Heating) or <input 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, enter total calculated or measured fan flow in CFM here:	1400	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
3	Pass if Leakage Percentage < 6% for Final or < 4% at Rough-in without air handle: $100 \times [\frac{\text{(Line \# 1)}}{\text{(Line \# 2)}}]$		<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.	90	
6	Enter Reduction in Leakage for Altered Duct System $[\text{(Line \# 4)} \text{ Minus } \text{(Line \# 5)}] - \text{(Only if Applicable)}$		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
7	Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		
8	Entire New Duct System - Pass if Leakage Percentage < 6% for Final. $100 \times [\frac{\text{(Line \# 5)}}{\text{Line \# 2}}]$		<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% $100 \times [\frac{90}{1400} \text{(Line \# 5)} / \frac{1400}{1400} \text{(Line \# 2)}]$	13	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
10	Pass if Leakage to Outside Percentage < 10% $100 \times [\frac{\text{(Line \# 7)}}{\text{(Line \# 2)}}]$		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
11	Pass if Leakage Reduction Percentage > 60% $100 \times [\frac{\text{(Line \# 6)}}{\text{(Line \# 4)}}]$ 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			

I, the undersigned, verify that the above diagnostic test results were performed in conformance with the requirements for compliance credit 1, 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: _____
 Signature: Kurt Danielson Date: 10/2/09

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

INSTALLATION CERTIFICATE		(Page 5 of 12) CF-6R
Site Address 7513 Highwind way 95831	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.	<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 RD.
 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

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

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 re-measurement, if between -3°F and -100°F)		°F

Kent J. Joubert