

B

Type

Docs

Plans

BLD00-4823

Building Permit Number

6691

Street Number

MORO ST

Street Name

Community Code

APN

COUNTY OF SONOMA

PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA

(707) 565-1900 FAX (707) 565-1103

BUILDING PERMIT RECEIPT

BLDC0-4823

Site Location Information

Printed By: CRADER 10:55 Ma: 24, 2001

Address: 5691 MORO ST BLO

APN: 027-155-001

Cross Street: BRODERICK RD

Initialized By: CNIEDERM B-BLD 0001

Owner

Applicant

DURIEE DUKE & SUSAN
5691 MORO ST
PETALUMA CA

MARK W ABEL
P O BOX 4223
SANTA ROSA CA
95402
707 546 1063

707 283 2090

949529729

Contractor

Architect or Engineer

ABEL MARK WILLIAM
PO BOX 4223
SANTA ROSA CA

ROY ANDERSON
442 HOUSER ST
COTATI CA

707 546 1063

95402
Lic. #: 701336

707 792 9712

94931
Lic. #:

This Building Permit Shall Expire: 10/24/2001

Permit Description:

ADD UPSTAIRS BEDROOM/REMODEL KITCHEN

Status: ISSUED

Issued: 04/20/2001

Valuation/Contract \$: \$68,000.00 PC-Calc (Old/New): 0 PERM-Calc (Old/New): 0 Type: SADD
Blanchek Multiplier: 1.00 Penalty Multiplier (Where Applicable):
Occupancy Type Factor Sq. Feet Valuation

Subtotal: .00
Multiplier 1.00: .00
Addl Fixed Amount: 68,000.00
Total Valuation: 68,000.00

Table Date: 07/01/2000

Item #	Item Account Code	Description	Fee	Previously Paid
0011	025015-1341 3505	INSPECTIONS - OTHER	\$.00	\$.00
0012	025015-1341 3505	INSP. OUTSIDE NORMAL HRS	\$.00	\$.00
0013	025015-1341 3505	REINSPECTION(S) FEE	\$.00	\$.00
0050	337023-4040	S.M.I.P. RESIDENTIAL	\$6.80	\$6.80
0062	025015-1341	BLDG PERM PLAN CHECK FEE	\$538.95	\$538.95
0062	025015-1341	ADDITIONAL PLANCHECK FEE	\$37.00	\$.00
0100	025015-1341 3502	SITE REVIEW/ELEV. CERT.	\$.00	\$.00
0119	649103-3661	CO FIRE MARSHAL REVIEW	\$.00	\$.00
0120	025015-1341 3504	FIRE STDS INSPECT - PRMD	\$.00	\$.00
0121	025015-1341	FIRE SAFE STDS & REF PRMD	\$.00	\$.00
0122	025015-1341 3504	ELECTRICAL FEE	\$33.50	\$33.50
0123	025015-1341 3504	MECHANICAL FEE	\$33.50	\$33.50
0124	025015-1341 3504	PLUMBING FEE	\$33.50	\$33.50
0132	025015-1341 3504	BUILDING PERMIT FEE	\$829.16	\$829.16
0220	025015-1600	VIO. PENALTY FEE (BLDG)	\$.00	\$.00
0221	025015-4114 2001	VIO. INVEST. FEE (BLDG)	\$.00	\$.00
0366	025015-1342 0411	CLEARANCE OFFICE REVIEW	\$46.00	\$46.00
0707	025015-3140 6054	REF.-GRADING/DRAIN. PLAN	\$.00	\$.00
0708	025015-3140 6055	REF.-GRD/DRAIN DAM/DRVWY	\$.00	\$.00
1165	025015-3829 6146	ZONING PERMITS W/O D.R.	\$30.00	\$30.00
2000	335208-4040-W	PRM-CO-WDE CE TRAFFIC MIT	\$.00	\$.00
2001	335307-4040-W	PRM-CO-WDE NO TRAFFIC MIT	\$.00	\$.00
2002	335406-4040-W	PRM-CO-WDE SO TRAFFIC MIT	\$.00	\$.00
2003	335505-4040-W	PRM-CO-WDE WE TRAFFIC MIT	\$.00	\$.00
2005	335042-4040-W	PRM-EASTMN LN TRAFFIC MIT	\$.00	\$.00
2006	335075-4040-W	PRM-MOORLAND AV DRAINAGE MIT	\$.00	\$.00
2007	335034-4040-W	PRM-LARK/WIKUP TRAFFIC MIT	\$.00	\$.00
2008	335059-4040-W	PRM-SONOMA VLY TRAFFIC MIT	\$.00	\$.00
5011	025015-1341-W 3505	INSPECTIONS - OTHER	\$.00	\$.00
5012	025015-1341-W 3505	INSP. OUTSIDE NORMAL HRS	\$.00	\$.00
5013	025015-1341-W 3505	REINSPECTION(S) FEE	\$.00	\$.00
5060	025015-1341-W	BLDG PERM PLAN CHECK FEE	\$.00	\$.00
5062	025015-1341-W	ADDITIONAL PLANCHECK FEE	\$.00	\$.00
5100	025015-1341-W 3502	SITE REVIEW/ELEV. CERT.	\$.00	\$.00
5119	649103-3661-W	CO FIRE MARSHAL REVIEW	\$.00	\$.00
5120	025015-1341-W 3504	FIRE STDS INSPECT - PRMD	\$.00	\$.00
5121	025015-1341-W	FIRE SAFE STDS & REF PRMD	\$.00	\$.00
5122	025015-1341-W 3504	ELECTRICAL FEE	\$.00	\$.00
5123	025015-1341-W 3504	MECHANICAL FEE	\$.00	\$.00
5124	025015-1341-W 3504	PLUMBING FEE	\$.00	\$.00
5132	025015-1341-W 3504	BUILDING PERMIT FEE	\$.00	\$.00
5220	025015-1600-W	VIO. PENALTY FEE	\$.00	\$.00
5221	025015-4114-W 2001	VIO. INVEST. FEE	\$.00	\$.00
5060	025015-1342-W 0411	CLEARANCE OFFICE REVIEW	\$.00	\$.00
5708	025015-3140-W 6054	REF.-GRADING/DRAIN. PLAN	\$.00	\$.00
5708	025015-3140-W 6055	REF.-GRD/DRAIN DAM/DRVWY	\$.00	\$.00
6165	025015-3829-W 6146	ZONING PERMITS W/O D.R.	\$.00	\$.00
7000	335208-4040-W	PRM-CO-WDE CE DEV FEE TR	\$.00	\$.00
7000	335307-4040-W	PRM-CO-WDE NO DEV FEE TR	\$.00	\$.00
7000	335406-4040-W	PRM-CO-WDE SO DEV FEE TR	\$.00	\$.00
7000	335505-4040-W	PRM-CO-WDE WE DEV FEE TR	\$.00	\$.00
7000	335042-4040-W	PRM-EASTMN LN DEV FEE TR	\$.00	\$.00
7000	335075-4040-W	PRM-MOORLAND DEV FEE TR	\$.00	\$.00
7000	335034-4040-W	PRM-LARK/WIKUP DEV FEE TR	\$.00	\$.00
7000	335059-4040-W	PRM-SONOMA VLY DEV FEE TR	\$.00	\$.00

Qualifies for fee waivers (Y/N): N

Total Calculated Fees	\$1,588.41	\$1,551.41
Previously Paid	\$1,551.41	
Balance Due	\$37.00	

COUNTY OF SONOMA - PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA 95403 (707) 565-1900 FAX (707) 565-1103

Please Print Your Name: **MARK Abel** Date Applied: **10-10-00**

INFORMATION WITHIN HEAVY LINE TO BE COMPLETED BY APPLICANT

SITE LOCATION INFORMATION - PRINT CLEARLY

Site Address: 6691 Moro St.		City: Bloomfield	ZIP:
Cross-Street: Broderick Rd.		AFN: 027-155-001	Project Phone #: 707-484-7204
Directions: Bloomfield School Home		Project Fax #: 707-456-1053	Unit #
Describe Project: ADD UPSTAIRS BEDROOM REMODEL KITCHEN (Converted attic)		Subd. Name	Lot #
		Living Area: 360 SF	Contract Price: \$108,000
		Garage	
		Decks	

OWNER NAME AND ADDRESS			APPLICANT NAME AND ADDRESS		
Name: Duke & SUSAN DUNFEE			Name:		
Mailing Address: 6691 Moro St.			Mailing Address:		
City: Bloomfield	State: CA	ZIP:	City:	State:	ZIP:
Day Ph: 707-283-2070	Fax: ()		Day Ph:	Fax: ()	

CONTRACTOR INFORMATION			OTHER PERSONS (ARCHITECT, ENGINEER, ETC.)		
Company Name: MARK W. ABEL			Name: ROY ANDERSON		
Address: P.O. BOX 4223			Address: 442 Houser St.		
City: SANTA ROSA	State: CA	ZIP: 95402	City: COVINTI	State: CA	ZIP: 94731
Day Ph: 707-546-1063	Fax: 707-546-1053		Day Ph: 707-772-7712	Fax: 707-772-7715	

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 worker's compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

I have and will maintain worker's compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are:

Carrier: **STATE FUND**

Policy No.: **000-690-73**

(This section need not be completed if the permit is for one hundred dollars (\$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 worker's compensation laws of California, and agree that if I should become subject to the worker's compensation provisions of Section 3700 of the Labor Code, I shall comply with those provisions.

Exp. Date: **10/1/01** Applicant: **Mark Abel**

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 3708 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING DECLARATION

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.)

Lenders Name: **None**

Lenders Address:

FOR DEPARTMENT USE

Zoning: **RR B6.5 HD** File No. **ZPC-01-023** Address: **21**

Existing Use/Structures: **RES**

Proposed Use/Structures: **Remodel, addn.**

Zoning Min. Yard Requirements: Front _____ Left _____ Right _____ Back _____

NOTE: Fire Safe Standards require all parcels greater than 1 Acre to have a min. 30' setback unless mitigated. Mitigation Required Address subject to change

Approval for Permit Issuance:

By: **Ryan** Date: **10/10/00**

Conditions: **Perp. by Landmark**

10/5/2000 0161

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 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).

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 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 or her own employees, provided that such improvements are not intended or offered for sale. However, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or 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 & P.C. for this reason _____

Date: _____ Owner: _____

LICENSED CONTRACTOR'S 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.

Lic. Class: **B-HIC** Lic. No.: **701336**

Exp. Date: **1-31-01** Contractor: **Mark W. Abel**

ASBESTOS DECLARATION

Written asbestos notification pursuant to Part 61 of Title 40 of the Code of Federal Regulations is required when asbestos exists in buildings, or portions thereof, undergoing demolition. I hereby declare that demolition authorized by this permit is from construction that does, does not contain asbestos, or that no demolition is authorized by this permit.

I certify that I have read this application and affirm under penalty of perjury that the above information is correct. I agree to comply with all local Ordinances and State laws relating to building construction. I hereby authorize representatives of the County of Sonoma to enter upon the above-mentioned property for inspection purposes. If, after making the Certificate of Exemption for the Worker's Compensation provision of the Labor Code I should become subject to such provisions, I will forthwith comply. In the event I do not comply with the Workman's Compensation law, this permit shall be deemed revoked.

Permittee Signature: **Mark Abel**

Address: **P.O. Box 4223 SANTA ROSA CA 95402**

Contractor Owner Agent for Contractor Agent for Owner

THIS PERMIT SHALL EXPIRE IN THREE(3) YEARS FROM DATE FEES ARE PAID UNLESS OTHERWISE NOTED BY CODE ENFORCEMENT

Plans Approved

No Plans Subject to Field Inspection

Final Check Charged By: **CM** Date: **1/16/01**

Permit Closed for Work By: **CM** Date: **9/19/01**

Post FIRM Aerial Photo Report Available

Pre FIRM Geotechnical Report Available

Type of Construction: UN	Occupancy: R3	No. of Stories: 2	No. of Bedrooms: 1
Auto. Fire Sprinklers Req'd	No. of Units	Certificate of Occupancy	

Final Date: **11/20/01** **4579ADDORD4/20/01 SUBTTL** **1012.46**

Distribution: White - County - Applicant Pink - Audit Copy Blue - Assessor Cardstock - Inspector

JOB ADDRESS: 1621R PERMIT NUMBER: Bldg-4823

Permit # **Bldg-4823** Area **3**

Permit Coordinator _____

131) SPECIAL INSPECTION REQUIRED		<input type="checkbox"/> YES	<input type="checkbox"/> NO	IF YES, SEE ADDITIONAL SHEET
INSPECTION RECORD	DATE	NAME	REMARKS	
103) FOUNDATION				
FORMS/SETBACK				
FOOTING				
WALLS				
106) UFER GROUND #				
104) CAISSONS/PIERS				
105) SLAB				
110) MASONRY				
109) RETAINING WALLS				
113) FIREPLACE				
FOOTING				
HEARTH/PROTECTION				
THROAT				
114) CHIMNEY				
120) UNDERFLOOR/UNDERSLAB				
116) U/F ELECTRICAL				
117) U/F MECHANICAL				
118) U/F PLUMBING				
119) U/F FRAMING				
139) U/F INSULATION				
126) SHEAR WALLS				
<input type="checkbox"/> INTERIOR				
<input checked="" type="checkbox"/> EXTERIOR	7/19/01	RC		
127) DIAPHRAGMS				
<input checked="" type="checkbox"/> ROOF	7/19/01	SJR		
<input type="checkbox"/> FLOOR				
134) SIDING/SHEATHING				
125) HOLD DOWNS				
132) CLOSE-IN	7-27-01	MS		
122) ROUGH ELECTRICAL	7-27-01	MC		
123) ROUGH MECHANICAL	7-27-01	WG		
124) ROUGH PLUMBING	7-27-01	MP		
128) ROUGH FRAME	7-27-01	MP		
160) SMOKE DETECTORS	11/20/01	DP		
139) INSULATION				
142) WALLBOARD				8901 12 FLOOR STAIRWAY (RE)
135) STUCCO/PLASTER				
<input type="checkbox"/> LATH				
<input type="checkbox"/> SCRATCH				
137) ROOFING				
130) TUB/SHOWER PAN	7/19/01	RC		
164) SUSPENDED CEILING				
ROUGH ELECTRICAL				
ROUGH MECHANICAL				
165) EXITING				
STAIRS/HANDRAILS				
RAMPS				
CORRIDORS/DOORS				
166) ACCESSIBILITY COMPLIANCE				
ENERGY REQUIREMENTS				
170) TEMPORARY OCCUPANCY				
171) TEMPORARY ELECTRICAL				
172) TEMPORARY GAS				
174) ELECTRIC METER AUTHORIZATION				
152) PANEL BOARDS/SERVICE				
175) GAS METER AUTHORIZATION				
153) GAS PRESSURE TEST				
HOUSE				
YARD				
190) MANUF. HOME FOUNDATION				
191) MANUF. HOME INSTALLATION				
CONTINUITY				
STAIRS/SKIRTS				
RIDGE BOLTING				
SWIMMING POOLS				
194) PRE-GUNITE				
195) PRE-DECK				
196) PRE-PLASTER/FENCE				
102) GRADING FINAL				
176) ELECTRICAL FINAL				
177) MECHANICAL FINAL				
178) PLUMBING FINAL				
199) FINAL				
OCCUPANCY (OK TO OCCUPY)				
FIRE INSPECTION REQUIRED			DATE	NAME
<input type="checkbox"/> Yes <input type="checkbox"/> No				
770) SPRINKLER FINAL				
771) ABOVEGROUND HYDROSTATIC				
772) UNDERGROUND HYDROSTATIC				
773) UNDERGROUND FLUSH				
774) THRUST BLOCKS				
775) PIPE WELD				
776) HYDRANTS/APPLIANCES				
777) PUMP ACCEPTANCE				
778) WATER SUPPLY/TANK				
779) ALARM SYSTEM				
780) HOOD & DUCT SYSTEM				
781) ABOVEGROUND TANK/DISPENSER				
198) FIRE FINAL				
CLEARANCES:				
FIRE <input type="checkbox"/> Local <input type="checkbox"/> County				
HEALTH DEPARTMENT				
ZONING				
SANITATION				
N.C.A.P.C.D.				
PLAN RETENTION REQUIRED?				
<input type="checkbox"/> Yes <input type="checkbox"/> No				

PERMIT # Bldg - 4185

Mark W. Abel
P.O. Box 4223
Santa Rosa, CA 95402
707-546-1063
707-546-1053 Fax

November 10, 2001

Insulation certificate for:

Bathroom and laundry room addition:

Duke & Susan Durfee
6691 Moro Street
Bloomfield, CA 94952

Floors: R-19 batts

Walls: R-13 Batts

Ceiling: R-30 Batts.

Certificate of Compliance: Residential

(Part 1 of 2) **CF-1R**

Duke & Susan Dufree

11/14/00

Project Title

Date

6691 Morro Street Bloomfield

Project Address

Building Permit #

DCA

(707) 568-5591

Plan Check / Date

Documentation Author

Telephone

Computer Performance

2

Field Check / Date

Compliance Method (Package or Computer)

Climate Zone

Enforcement Agency Use Only

GENERAL INFORMATION

Total Conditioned Floor Area: 792 ft²

Total Conditioned Slab Area: 0 ft²

Building Type:
(check one or more)

- Single Family Detached (SFD) Addition Alone
 Single Family Attached (SFA) Existing Building
 Multi-Family Existing Plus Addition

Front Orientation: (West) 270 deg Floor Construction Type: Slab Floor

Number of Dwelling Units: 1.00

Number of Stories: 1

Raised Floor

BUILDING SHELL INSULATION

Component Type	Frame Type	Const. Assembly U-Value	Location/Comments (at garage, typical, etc.)
R-19 Floor (F.19.2x8.16)	Wood	0.049	Exterior Floor / over Open Space
R-13 Wall (W.13.2x4.16)	Wood	0.088	Exterior Wall
R-30 Roof (R.30.2x12.16)	Wood	0.034	Exterior Roof

FENESTRATION

Shading Devices

Type	Orientation	Area (SF)	Labeled Fenestration U-Value	SHGC	Interior (roller blind, etc.)	Exterior (shadescreen, etc.)	Overhang Yes / No	Side Fins Yes / No
Left	(North)	6.0	0.60	0.65	Drapery	Bug Screen	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
Rear	(East)	96.0	0.60	0.65	Drapery	Bug Screen	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
Right	(South)	6.0	0.60	0.65	Drapery	Bug Screen	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
							<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
							<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
							<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
							<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
							<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
							<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
							<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
							<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

Run Initiation Time: 11/14/00 12:49:36 Run Code: 974234976

Certificate of Compliance: Residential

(Part 2 of 2) **CF-1R**

Duke & Susan Dufree
Project Title

11/14/00
Date

HVAC SYSTEMS Note: Input Hydronic or Combined Hydronic data under Water Heating Systems, except Design Heating Load.

Heating Equipment Type (furnace, heat pump, etc.)	Minimum Efficiency (AFUE/HSPF)	Distribution Type and Location (ducts, attic, etc.)	Duct or Piping R-Value	Thermostat Type	Location / Comments

Cooling Equipment Type (air conditioner, heat pump, evap. cooling)	Minimum Efficiency (SEER)	Duct Location (attic, etc.)	Duct R-Value	Thermostat Type	Location / Comments

WATER HEATING SYSTEMS

Water Heater System Name	Water Heater Type	Distribution Type	# in Syst.	Rated Input Btu/hr ¹	Tank Cap. (gal)	Energy Fact. or Recovery Efficiency ¹	Standby Loss (%) ¹	External Tank Insul. R-Value

¹ For small gas storage (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 and Standby Loss. For instantaneous gas water heaters, list Rated Input and Recovery Efficiency.

REMARKS

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and performance 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. When this certificate of compliance is submitted for a single building plan to be built in multiple orientations, any shading feature that is varied is indicated in the Special Features/Remarks section.

Designer or Owner (per Business & Professions Code)

Name: _____
 Title/Firm: Duke Dufree
 Address: 6691 Morro Street
Bloomfield, CA
 Telephone: 794-9778
 Lic. #: _____

Documentation Author

Name: David Colombo
 Title/Firm: DCA
 Address: 4000 Montgomery Drive
Santa Rosa, CA 95404
 Telephone: (707) 568-5591

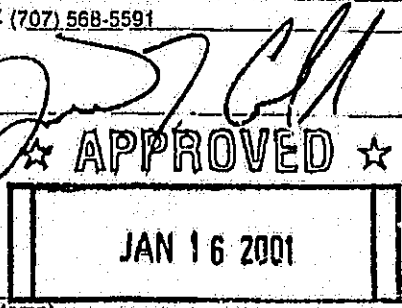
(signature) (date)

[Signature]

(signature) (date)

Enforcement Agency

Name: _____
 Title/Firm: _____
 Address: _____
 Telephone: _____



(signature/stamp) (date)

Mandatory Measures Checklist: Residential

MF-1R

NOTE: Lowrise residential buildings subject to the Standards must contain these measures regardless of the compliance approach used. Items marked with an asterisk (*) may be superseded by more stringent compliance requirements listed on the Certificate of Compliance. When this checklist is incorporated into the permit documents, the features noted shall be considered by all parties as binding minimum component specifications.

DESCRIPTION Instructions: Check or initial applicable boxes, or enter N/A if not applicable.	DESIGNER	ENFORCEMENT
Building Envelope Measures		
<input type="checkbox"/> *§150(a): Minimum R-19 ceiling insulation in wood frame assembly, or equivalent U-value.		
<input type="checkbox"/> §150(b): Loose fill insulation manufacturer's labeled R-value.		
<input type="checkbox"/> *§150(c): Minimum R-13 wall insulation in framed walls or equivalent U-value (does not apply to exterior mass walls)		
<input type="checkbox"/> *§150(d): Minimum R-13 raised floor insulation in wood framed floors.		
<input type="checkbox"/> §150(f): Slab edge insulation - water absorption rate < 0.3%, water vapor transmission rate < 2.0 perm/inch.		
<input type="checkbox"/> §118: Insulation specified or installed meets quality standards. Indicate type and form.		
<input type="checkbox"/> §116-17: Fenestration Products, Exterior Doors and Infiltration/Exfiltration Controls <ol style="list-style-type: none"> 1. Doors and windows between conditioned and unconditioned spaces designed to limit air leakage. 2. Manufactured fenestration products labeled with certified U-value, SHGC, and infiltration certification. 3. Exterior doors and windows weatherstripped; all joints and penetrations caulked and sealed. 		
<input type="checkbox"/> §150(g): Vapor barriers mandatory in Climate Zones 14 and 16 only.		
<input type="checkbox"/> §150(f): Special infiltration barrier installed to comply with Section 151 meets Commission quality standards.		
<input type="checkbox"/> §150(e): Installation of Fireplaces, Decorative Gas Appliances and Gas Logs. <ol style="list-style-type: none"> 1. Masonry and factory-built fireplaces have closable doors, outside air intake with damper and control, and flue damper and control; 2. No continuous burning gas pilots allowed. 		
Space Conditioning, Water Heating and Plumbing System Measures		
<input type="checkbox"/> §110-13: HVAC equipment, water heaters, showerheads and faucets certified by the Commission.		
<input type="checkbox"/> §150(h): Heating and/or cooling loads calculated in accordance with ASHRAE, SMACNA or ACCA.		
<input type="checkbox"/> §150(i): Setback thermostat on all applicable heating and/or cooling systems.		
<input type="checkbox"/> §150(j): Pipe and Tank Insulation <ol style="list-style-type: none"> 1. Storage gas water heaters with less than 0.58 energy factor shall be externally wrapped with R-12. 2. Back-up tanks for solar system, unfired storage tanks, or other indirect hot water tanks have R-12 external insulation or R-16 combined internal/external insulation, piping between heat source and tank insulated. 3. Insulation on the first 5' of pipes closest to water heater tank, non-recirculating systems (R-4 or greater), buried or exposed piping in recirculating sections of hot water systems, cooling system piping below 55 deg F. 		
<input type="checkbox"/> *§150(m): Ducts and Fans <ol style="list-style-type: none"> 1. All ducts and plenums constructed, installed, insulated, fastened, and sealed to comply with the ICBO 1997 UMC sections 601.803; ducts insulated to a minimum installed R-4.2 or ducts enclosed entirely within conditioned space. Openings shall be sealed with mastic, tape aerosol sealant or other duct closure system that meets the applicable requirements of UL181, UL181S, or UL181B and other applicable specified test for longevity given: §150(m). 2. Exhaust fans systems have back draft or automatic dampers. 3. Gravity ventilating systems serving conditioned space have either automatic or readily accessible, manually operated dampers. 		
<input type="checkbox"/> §114: Pool and Spa Heating Systems and Equipment <ol style="list-style-type: none"> 1. Certified with 78% thermal efficiency, on-off switch, weatherproof instructions, no pilot or electric resistance heating. 2. System is installed with at least 36" of pipe between filter and heater, cover for outdoor pools or spas. 3. Pool system has directional inlets and a circulation pump time switch. 		
<input type="checkbox"/> §115: Central Furnaces, pool heaters, spa heaters or household cooking appliances have no constant pilot light.		
Lighting Measures		
<input type="checkbox"/> §150(k)1: Luminaires for general lighting in kitchens shall have lamps with an efficacy 40 lumens/watt or greater for general lighting in kitchens. This general lighting shall be controlled by a switch on a readily accessible lighting control panel at an entrance to the kitchen.		
<input type="checkbox"/> 150(k)2: Rooms with a shower or bathtub must either have at least one luminaire with lamps with an efficacy of 40 lumens/watt or greater switched at the entrance to the room or one of the alternative to this requirement allowed in 150(k)2.1 and recessed ceiling area IC (insulation cover) approved.		

INSTALLATION CERTIFICATE

(Part 1 of 7) **CF-6R**

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; however, use of this form to provide the information is optional.) 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(b).

HVAC SYSTEMS:

Heating Equipment

Equip. Type (pkg. heat pump)	CEC Certified Mfr Name & Model Number	# of Identical Systems	Efficiency ¹ (AFUE, etc.) [\geq CF-1R Value]	Duct Location (attic, etc.)	Duct or Piping R-Value	Heating Load (Btu/hr)	Heating Capacity (Btu/hr)

Cooling Equipment

Equip. Type (pkg. heat pump)	CEC Certified Compressor Unit Mfr Name & Model Number	# of Identical Systems	Efficiency ¹ (SEER, etc.) [\geq CF-1R Value]	Duct Location (attic, etc.)	Duct or R-Value	Cooling Load (Btu/hr)	Cooling Capacity (Btu/hr)

1. \geq reads Greater Than or Equal to.

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) the equipment meets or exceeds the appropriate requirements for manufactured devices (from the Appliance Efficiency Regulations or Part 5), where applicable.

Signature, Date _____

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

WATER HEATING SYSTEMS:

Heater Type	CEC Certified Mfr Name & Model Number	Distribution Type (Std. Point-of-Use)	If Recirculation Control Type	# of Identical Systems	Rated ² Input (kW or Btu/hr)	Tank Volume Gallons	Effi ² (EF, RE)	Standby Loss (%)	External Insulation R-Value

² For small gas storage (rated input 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 Recovery Efficiency, Standby Loss and Rated Input.

For instantaneous gas water heaters, list Recovery Efficiency and Rated Input.

³ R-12 external insulation is mandatory for storage water heaters with an energy factor of less than 0.58.

Faucets & Shower Heads:

All faucets & showerheads installed are certified to the Commission, pursuant to Title 24, Part 6, Section 111.

I, the undersigned, verify that equipment listed above my signature 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.

Signature, Date _____

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

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

INSTALLATION CERTIFICATE

(Part 2 of 7) **CF-6R**

Site Address _____

Permit Number _____

FENESTRATION / GLAZING:

Manufacturer/Brand Name	Product U-Value ¹ (= \leq CF-1R value) ²	Product SHGC ¹ (= \leq CF-1R value) ²	# of Panes	Quantity (Optional)	Square Feet	Interior or Exterior Shading Device or Overhang	Comments/Special Features
GROUP LIKE PRODUCTS							
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							

1. Manufactured Fenestration products use the values from the product label. Field fabricated fenestration products use the default values from Section 116 of the Energy Efficiency Standards.

2. Installed U-value must be less than or equal to values from CF-1R. Installed SHGC must be less than or equal to values from CF-1R, or a shading device (interior, exterior or overhang) is installed as specified on the CF-1R. Attentively installed weighted average U-values for the total fenestration area are less than or equal to values from CF-1R.

I, the undersigned, verify that the fenestration/glazing listed above my signature (1) is the actual fenestration product installed; (2) is equivalent to or has a lower U-value and lower SHGC than that specified in the certificate of compliance (Form CF-1R) submitted for compliance with the Energy Efficiency Standards for residential buildings; and (3) the product meets or exceeds the appropriate requirements for manufactured devices (from Part 6), where applicable.

Item #s
(if applicable)

Signature, Date

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

Item #s
(if applicable)

Signature, Date

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

Item #s
(if applicable)

Signature, Date

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

COPY TO: Building Department
HERS Provider (if applicable)
Building Owner at occupancy

INSTALLATION CERTIFICATE

(Part 3 of 7) **CF-6R**

Site Address _____

Permit Number _____

DUCT DIAGNOSTICS

This building obtained compliance credit for:

- Duct sealing Duct Area Reduction
 ACCA Manual Design and Installation

CREDIT FOR REDUCED DUCT SURFACE AREA OR LOCATION

ACCA Design

Duct Location*	Exterior Surface Area (CF-1R)	Measured Exterior Surface Area
<input type="checkbox"/> Attic		
<input type="checkbox"/> Crawlspace		
<input type="checkbox"/> Basement		
<input type="checkbox"/> Other _____		
Total		

*Ignore ducts in conditioned space. Only a check is required for location credit.

- Duct Design on Plans
 Installed duct diameters match plans
 TXV installed
 Access to TXV valve (if installed)
 No TXV, Fan air flow (CFM) _____
 Duct Leakage Measured
 Measured leakage (CFM) _____
HVAC fan air flow (CFM) _____ (measured or calculated as)
- CFM = $0.7 \times A_{\text{floor}}$ for GZ 8 through 15
 CFM = $0.5 \times A_{\text{floor}}$ for GZ 1 through 7 & 16 or, if the equipment size is known, the larger of 1 or 2.
 CFM = $400 \times \text{Cooling Capacity in Tons}$ or
2. CFM = $21.7 \times \text{Heating Capacity in Thousands of Btu per hour}$

Leakage divided by HVAC Fan air flow _____ (must be ≤ 0.06)

For AEROSOL TYPE SEALANTS ONLY - The following diagnostic testing was completed:

- Duct Fan Pressurization at rough - in measured leakage CFM _____ CHECK AFTER FINISHING WALL:
 Pressure Pan Test House pressurization test Visual Inspection of Duct Connections

Provide Follow-up Test Results or Inspection Results on a Separate Page

This certifies that the ducts surface area and duct locations were verified.

When compliance credit is claimed for duct surface area reductions and duct location improvements beyond those covered by default assumptions, builder employees or subcontractors shall certify that they have verified that the duct surface area and locations match those on the plans and shall indicate the duct surface area in each duct location on the CF6R.

This is to certify that the above diagnostic test results and the work performed associated with the test(s) is in conformance with the requirements for compliance credit. (The builder shall provide the HERS provider a copy of the CF-6R signed by the builder employees or sub-contractors certifying that diagnostic testing and installation meet the requirements for compliance credit.)

Tests Performed _____

Signature, Date _____

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

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

INSTALLATION CERTIFICATE

(Part 4 of 7) **CF-6R**

Site Address _____

Permit Number _____

BUILDING ENVELOPE LEAKAGE DIAGNOSTICS

This building obtained compliance credit for: Envelope sealing using diagnostic testing (CF-1R)

	Needed for Compliance (from CF-1R)	Measured Blowerdoor Test Results
-Building Envelope Leakage (CFM @ 50 Pa)	_____	_____
-Leakage level equivalent to an SLA of 3.0 from CF-1R	_____	_____
-Minimum Building Leakage equivalent to an SLA of 1.5 from CF-1R (CFM @ 50 Pa)	_____	_____

- Yes No Is design infiltration less than the SLA 3.0 equivalent (from CF-1R)?
- Yes No Is mechanical ventilation installed? (Required if design is less than 3.0 SLA)
- Yes No Is measured leakage (without fans operating) less than minimum in the above Table (1.5 SLA from CF-1R)?
- Yes No Is mechanical supply ventilation installed to assure house pressure does not go below minus 5 Pascal relative to outside ambient with all exhaust fans operating?

Mechanical Ventilation - Fill in Table if mechanical ventilation is installed

	Used for Compliance (from CF-1R)	Measured Actual
-Continuous Mechanical Ventilation (CFM)	_____	_____
-Continuous Mechanical Supply Ventilation (CFM) Required to maintain -5 Pa if building envelope leakage is less than minimum (see above)	_____	_____
-Total Power Consumption of Continuous Mechanical Ventilation (Watts)	_____	_____

____ This certifies that the building leakage was verified.

When compliance credit is claimed for building leakage reduction below default assumptions, builder employees or subcontractors shall certify that they have verified that the building leakage level matches that used for compliance on the CF-6R and shall document the infiltration levels required for compliance and the tested infiltration values on the CF-6R.

This is to certify that the above diagnostic test results and the work performed associated with the test(s) is in conformance with the requirements for compliance credit. (The builder shall provide the HERS provider a copy of the CF-6R signed by the builder employees or sub-contractors certifying that diagnostic testing and installation meet the requirements for compliance credit.)

Tests
Performed _____

Signature, Date _____

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

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

1. When mechanical ventilation is required, CFM less than 0.047 CFM per square foot of conditioned floor area indicates failure to achieve compliance
2. As determined from label on fan or manufacturer's literature.

INSTALLATION CERTIFICATE

(Part 5 of 7) **CF-6R**

Site Address

Permit Number

The following is an explanation of many of the input values required on this form:

HVAC SYSTEMS

Heating Equipment Type must be one of the following:

Furnace:	Gas (including Liquefied Petroleum Gases) or oil-fired central furnace & space heater
Boiler:	Gas or oil-fired boiler
PckgHeatPump:	Packaged central heat pump
SplitHeatPump:	Split central heat pump
RoomHeatPump:	Room heat pump
LrgPkgHeatPump:	Large packaged heat pump (>=65,000 Btu/hr output)
Electric:	Electric resistance heating (fixed HSPF = 3.0; radiant electric resistance (fixed HSPF = 3.55)
CombinedHydro:	Reference water heater under water heating systems below

- CEC Certified Manufacturer Make & Model Number from applicable Commission approved appliance directory.
- "# of Identical Systems" is for those systems with the same efficiency, duct location, duct R-Value and capacity.
- Efficiency from applicable Commission certified appliance directory.
- Duct Location is attic, crawl space, CVC crawl space, conditioned space, unconditioned space or none.
- Duct (or Piping) R-Value from Directory of Certified Insulation Materials and/or manufacturer's data.
- Heating/Cooling Load refer to Commission approved load calculation procedure.
- Heating/Cooling Equipment Capacity from the applicable Commission certified appliance directory. Note: location elevations over 2,000 ft above sea level require derating of output capacity (refer to manufacturer's literature).

Cooling Equipment Type must be one of the following:

SplitAirCond:	Split system air conditioner
PckgAirCond:	Packaged air conditioner
SplitHeatPump:	Split system heat pump
PckgHeatPump:	Packaged heat pump
RoomHeatPump:	Room heat pump
LrgPkgHeatPump:	Large packaged heat pump (>=65,000 Btu/hr output). Substitute EER for SEER when SEER is not available.
RoomAirCond:	Room air conditioner. Minimum SEER varies*
LrgPkgAirCond:	Large packaged air conditioner (>=65,000 Btu/hr output). Substitute EER for SEER when SEER is not available.
EvapDirect:	Direct evaporative cooling system. For compliance calculation purposes, fixed values: SEER = 11.0; duct location = attic; duct insulation R-value = 4.2
EvapIndirect:	Indirect evaporative cooling system. For compliance calculation purposes, fixed values: SEER = 13.0; duct location = attic; duct insulation R-value = 4.2

*Refer to California Energy Commission (CEC) publication Appliance Efficiency Regulations, P400-92-029

INSTALLATION CERTIFICATE

(Part 6 of 7) **CF-6R**

Site Address _____

Permit Number _____

The following is an explanation of many of the input values required on this form:

WATER HEATING SYSTEMS

Distribution Systems: Refer to Residential Manual for more details.

Standard:	Standard - Supply pressure based system, no pumps
Pipe Insulation:	Pipe Insulation on all 3/4-inch pipes
PCU/HWR:	Point of Use/Hot Water Recovery System
Recirc/NoControl:	Recirculation loop with no controls
Recirc/Timer:	Recirculation loop with a timer
Recirc/Temp:	Recirculation loop with temperature control
Recirc/Time + Temp:	Recirculation loop with a timer and temperature control
Recirc/Demand:	Recirculation loop with demand control

Water Heater Type	Information Needed			
	Energy Factor	Recovery Efficiency	Standby Loss	Rated Input
Storage Gas, Oil or Electric	Yes	No	No	No
Heat Pump	Yes	No	No	No
Instantaneous Gas	No	Yes	No	No
Instantaneous Electric	Yes	No	No	No
Large Storage Gas	No	Yes	Yes	Yes
Indirect Gas (Boiler)	No	Yes (AFUE)	No	Yes

FENESTRATION / GLAZING

Fenestration:	Windows, sliding glass doors, french doors, skylights, garden windows, and any door with more than one square foot of glass
Operator Type:	Slide, hinged, fixed
U-Value:	Installed U-Value must be less than or equal to value from CF-1R OR Installed weighted average U-Value for the total fenestration area is less than or equal to value from CF-1R
SHGC:	Installed SHGC must be less than or equal to value from CF-1R OR Installed SHGC for the total fenestration area is less than or equal to value from CF-1R OR An interior shading device, overhang, or exterior shading device is installed consistent with the CF-1R
Shading Device:	include when the building complied using an interior shading device: blinds, opaque roller shades, blinds (do not list draperies), an exterior shading device: woven sunscreen, louvered sunscreen, low sun angle sunscreen, roll-down awning, roll-down blinds or slats (do not list bug screen), or an overhang (include depth in feet)

INSTALLATION CERTIFICATE

(Part 7 of 7) **CF-6R**

Site Address _____

Permit Number _____

The following is an explanation of many of the input values required on the Diagnostic portion of this form (page 3 of 6):

TYPE OF CREDIT

Refer to Residential Manual Chapters 4 and 5 for more details:

Reduced Duct Surface Area:	Calculated as the outside area of the duct. Areas must be measured and verified by HERS rater.
Improved Duct Location:	Supply duct located in other than attic, as verified by location of registers (does not require HERS rater verification).
Catastrophic Leakage:	Pressure pan test reading must be less than 1.5 Pascal at a house pressure of 25 Pascal.
TXV:	Access cover required to facilitate verification.
Infiltration Reduction:	Infiltration is measured without mechanical ventilation operating. Mechanical ventilation is required for very tight house construction when credits for infiltration reduction using diagnostic testing are being used for achieving compliance. These very tight houses are defined as those with SLA of less than 1.5. The compliance documentation (CF-1R) will contain the measured CFM target value from a blower door test at 50 Pascal pressure difference that represents this SLA of 1.5. Mechanical ventilation is also required if the builder chooses to design the building to use mechanical ventilation and claims a credit for infiltration below an SLA of 3.0. The compliance documentation (CF-1R) will contain the measured CFM target value that represents this 3.0 SLA. If the builder claims credit in a design for infiltration reduction that is at an SLA of 3.0 or higher, and the actual measured SLA is 1.5 or greater, then mechanical ventilation is not required. If the SLA in this case were below 1.5, then mitigation (such as mechanical ventilation) would be required.
:	
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