Project Name:	**Climate Zone #**	**# of Stories**

General Information

Site Address:	**Enforcement Agency:**	**Date:**
Building Type ☐ Single Family ☐ Multi Family	Circle the Front Orientation: N, E, S, W, or degrees _____	
Conditioned Floor Area (CFA): _____	Project Type: ☐ Alterations ☐ Envelope ☐ Fenestration ☐ Roof ☐ HVAC Replacement or Change Out ☐ Duct Replacement ☐ Water Heater	

NOTE: This form is not to be used for Newly Constructed Buildings or Additions

Insulation Values For Opaque Surfaces *(for Furring use the Mass and Furring Strips Construction table below)*

Assembly Alteration

☐ **Opening of framed cavity alone** – *Alterations that involve the opening of the framed cavity of a wall, ceiling, or floor must install the mandatory minimum insulation value per §150 for the altered assembly. Fill in Columns A –C and enter mandatory insulation value in Column H.*

☐ **Replacement of entire assembly** – *Replacement of an entire wall, ceiling, or floor assembly requires the installation of Component Package- D insulation values in Table 151-C. Fill in Columns A – J.*

Opaque Surface Details For the furred portioned of Mass Walls see Furring Strips Construction Table below.

A	B	C	D	E	F	G	H	I	J
Proposed See Note				**Standard**	Values From JA4 Table				
Tag/ ID[1]	Assembly Name or Type[2]	Framing Material and Size[2]	Thickness, Spacing, or Other[3]	U-factor[4]	JA4 Table Number[5]	Framed Cavity R-value[6]	Continuous Insulation R-Value[7]	JA4 Assembly Row/Col[8]	Proposed Assembly U-factor[9]

Note: For furred assemblies, accounting for Continuous Insulation R-value, see Page JA4-3 and Equation 4-1. For calculating furred walls use the Mass and Furring Construction table below.

1. For Tag/ID indicate the identification name that matches the building plans.

2. Indicate the Assembly Name or type: Roof/Ceiling, Walls, Floors, Slabs, Crawl Space, Doors and etc…Indicate in column G the Frame material and Size: For Wood, Metal, Metal Buildings, Mass, enter 2x4, 2x6, or etc… see JA4 for other possible frame type assemblies.

3. Enter the thickness for mass in inches or Spacing between framing members enter; 16"or 24"OC; or Other for all other assembly description such as Concrete Sandwich Panel, Spandrel Panel, Logs, Straw Bale Panel and etc….

4. Based on the Climate Zone; enter the equivalent U-factor found in JA4 Table based on the R-Value from Table 151-B, C, or D

5. Enter the Table number that closely resembles the proposed assembly.

6. Enter the R-value that is being installed in the wall cavity or between the framing; otherwise, enter "0".

7. Enter the Continuous Insulation R-value for the proposed assembly; otherwise, enter "0".

8. Enter the row and column of the U-factor value based on Column F Table Number and enter the Assembly U-factor in Column J

*9. The **Proposed** Assembly U-factor, Column J, must be equal to or less than the **Standard** U-factor in Column E to comply.*

Furring Strips Construction Table for Mass Walls Only

A	B	C	D	E	F	G	H	I	J	K	L	M
Proposed Properties of Masonry and Concrete Walls From Reference Joint Appendix Table 4.3.5, 4.3.6, 4.3.7					**Added Interior or Exterior Insulation in Furring Space from Reference Joint Appendix Table 4.3.13**							
Mass Thickness[1]	Assembly Name or Type[2]	JA4 Table Number[3]	JA4 -Mass Cell Value[4]	Mass U-Factor[5]	Interior or Exterior of Insulation Layer	Frame Thickness	Frame Type Wood or Metal	Furring Cavity R-value[3]	JA4 -Mass Cell Value[4]	Effective R-value[5]	Final Assembly U-factor[6,7]	Comment

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HVAC SYSTEMS - HEATING

Heating Equipment Type and Capacity[1,2,3]	Minimum Efficiency (AFUE or HSPF)	Distribution Type and Location[4]	Duct or Piping Insulation R-Value	Thermostat Type	Configuration (Central, Split, Space, Package or Hydronic)

1. Indicate Heating Type (Central Furnace, Wall Furnace, Heat pump, Boiler, Electric Resistance, etc.)
2. Electric resistance heating is allowed only in Component Package C, or except where electric heating is supplemental (i.e., if total capacity ≤ 2 KW or 7,000 Btu/hr electric heating is controlled by a time-limiting device not exceeding 30 minutes). See §151(b)3 exception.
3. Refer to the HERS Verification section on Page 4 of the CF-1R-ALT Form for additional requirements and check applicable boxes.
4. Indicate Type or Location (Ducts, Hydronic in Floor, Radiators, etc.)

HVAC SYSTEMS - COOLING

Cooling Equipment Type and Capacity[1,2]	Minimum Efficiency (SEER/EER or COP)	Distribution Type and Location[3]	Duct or Piping Insulation R-Value	Thermostat Type	Configuration (Central, Split, Space, Package or Hydronic)

1. Indicate Cooling Type (A/C, Heat pump, Evap. Cooling, etc)
2. Refer to the HERS Verification section on Page 4 of the CF-1R-ALT Form for additional requirements and check applicable boxes.
3. Indicate Type or Location (Ducts, Hydronic in Floor, Radiators, etc.)

WATER HEATING

List water heaters and boilers for both domestic hot water (DHW) heaters and hydronic space heating. Individual dwelling DHW heaters must be gas or propane fired. Hot water pipe insulation from the DHW heater to the kitchen(s) and on all underground hot water pipes is required in all component packages in all climate zones.

Water Heater Type/Fuel Type[1]	Distribution Type (Standard, Recirculating)[2]	Number In System	Tank Capacity (gal)	Energy Factor or Thermal Efficiency	External Tank Insulation R-Value[3]

1. Indicate Type (Storage Gas, Heat Pump, Instantaneous, etc.)
2. Recirculating systems serving multiple dwelling units shall meet the recirculation requirements of §150(n). The Prescriptive requirements do not allow the installation of a recirculating water heating system for single dwelling units.
3. The external water heating tank and pipes shall be insulated to meet the requirements of §150(j).

SPECIAL FEATURES

The *enforcement agency should pay special attention to the Special Features specified in this checklist below. These items may require written justification and documentation and special verification.*

NEW ROOF ASSEMBLY - Radiant Barrier
The radiant barrier requirement of §151(f)2 does not apply to roof alterations.

Slab Edge (Perimeter) Insulation ☐ **YES** ☐ **NO**
YES: In Climate Zone 16 in Component Packages D, R-7 insulation is required.

Heated Slab Insulation ☐ **YES** ☐ **NO**
YES: Slab edge insulation required for all heated slabs in all Climate Zones. See details in Table 118-A of the standards.

Raised Slab Insulation ☐ **YES** ☐ **NO**
YES: In Climate Zones 1, 2, 11, 13, 14 & 16, R-8 insulation is required; in Climate Zones 12 & 15, R-4 is required under component Package D.

Thermal Mass
To obtain Compliance Credit for the installation of thermal mass, use the Performance Approach.

Project Name:	Climate Zone #	# of Stories

HERS VERIFICATION SUMMARY *The enforcement agency should pay special attention to the HERS Measures specified in this checklist below. A completed and signed CF-4R Form for all the measures specified shall be submitted to the building inspector before final inspection.*

Duct Sealing & Testing *HERS verification is required for this measure.*

☐ **YES** ☐ **NO YES**: In Climate Zones 2 and 9-16, if more than 40 linear feet of new or replacement ducts are installed in unconditioned space, the ducts are to be sealed per §152(b)1Dii and the newly installed ducts are to be insulated per §151(f)10.

☐ **EXCEPTION: Existing duct systems that are extended, which are constructed, insulated or sealed with asbestos.**

☐ **YES** ☐ **NO YES**: In Climate Zones 2 and 9-16, if the existing space-conditioning system (HVAC equipment and ducting) is replaced, the ducts are to be sealed per §152(b)1Di.

☐ **YES** ☐ **NO YES**: In Climate Zones 2 and 9-16, if the existing HVAC equipment is replaced (including the replacement of the air handler, outdoor condensing unit of a split system, cooling or heating coil, or the furnace heat exchanger) the ducts are to be sealed per §152(b)1E.

☐ **EXCEPTION: Duct systems that are documented to have been previously sealed confirmed through HERS verification in accordance with procedures in the Reference Residential Appendix RA3.**

☐ **EXCEPTION: Duct systems with less than 40 linear feet in unconditioned space.**

☐ **EXCEPTION: Existing duct systems constructed, insulated or sealed with asbestos.**

Refrigerant Charge - Split System *HERS verification is required for this measure.*

☐ **YES** ☐ **NO YES**: In Climate Zones 2 and 8-15, when the existing HVAC equipment is replaced (including the replacement of the air handler, outdoor condensing unit of a split system A/C or heat pump, cooling or heating coil, or the furnace heat exchanger) a refrigerant charge measurement shall be verified per §152(b)1F.

Central Fan Integrated (CFI) Ventilation System and Fan Watt Draw

The ventilation requirements of §150(o) do not apply to existing residential homes.

Ducted Split Systems - Air Conditioners and Heat Pumps: Airflow *HERS verification is required for this measure.*

☐ **YES** ☐ **NO YES**: In Climate Zones 10 through 15, when the existing space-conditioning system (HVAC equipment and ducting) is replaced, the airflow and fan watt draw shall be verified per §152(b)1Ci to meet the requirements of §151(f)7B.

Documentation Author's Declaration Statement

- **I certify that this Certificate of Compliance documentation is accurate and complete.**

Name:	Signature:
Company:	Date:
Address:	If Applicable ☐ CEA or ☐ CEPE (Certification #):
City/State/Zip:	Phone:

Responsible Building Designer's Declaration Statement

- I am eligible under Division 3 of the California Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
- I certify that the energy features and performance specifications for the building design identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations.
- The building design features identified on this Certificate of Compliance are consistent with the information provided to document this building design on the other applicable compliance forms, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Name:	Signature:
Company:	Date:
Address:	License:
City/State/Zip:	Phone:

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300.