



CHEERS 45L



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VALIDATE DOCUMENT

ENERGY EFFICIENT HOME CREDIT (45L) CERTIFICATE

PROJECT: Green Valley Estates
1234 5th St
West Sacramento, CA 95691

PLAN NAME: Plan 2559 (2019)

CERTIFICATE NUMBER: 0000000001

SOFTWARE PROGRAM: Micropas v7.60

Eligible Certifier States That:

1. The dwelling unit has a projected level of annual heating and cooling energy consumption that is at least 50 percent below the annual level of heating and cooling energy consumption of a reference dwelling unit in the same climate zone;
2. Building envelope component improvements alone account for a level of annual heating and cooling energy consumption that is at least 10 percent below the annual level of heating and cooling energy consumption of a reference dwelling unit in the same climate zone;
3. Heating and cooling energy consumption have been calculated in the manner prescribed in Section 2.03 of Internal Revenue Bulletin: 2008-35; and
4. Field inspections of this dwelling unit (or of other dwelling units under the current ENERGY STAR for Homes Sampling Protocol Guidelines) performed during and after the completion of construction have confirmed that all features of the home affecting such heating and cooling energy consumption comply with the design specifications provided.

Please refer to the accompanying energy Certificate of Compliance Tax Credit Checklist for a list identifying:

1. The dwelling unit's energy efficient building envelope components and their respective energy performance ratings as required by § 401.3 of the 2004 IECC Supplement; and
2. The energy efficient heating and cooling equipment installed in the dwelling unit and the energy efficiency performance of such equipment as rated under applicable Department of Energy Appliance Standards test procedures.

Under penalties of perjury, I declare that I have examined this certification, including accompanying documents, and to the best of my knowledge and belief, the facts presented in support of this certification are true, correct, and complete.

Joe Smith

ELIGIBLE CERTIFIER

ELIGIBLE CERTIFIER: Joe Smith
COMPANY: CHEERS 45L
ADDRESS: 1601 R Street
Sacramento, CA 95819
PHONE: 916-555-1212

Per IRS Notice 2008-35, the taxpayer is not required to file this certification with the tax return on which the credit is claimed. However, § 1.6001-1(a) of the Income Tax Regulations requires that taxpayers maintain such books and records as are sufficient to establish the entitlement to, and amount of, any credit claimed by the taxpayer. Accordingly, a taxpayer claiming the credit under § 45L should retain this certification as part of the taxpayer's records to satisfy this requirement.

Notice: This certificate has been generated by ConSol Home Energy Efficiency Rating Service 45L, Inc. (CHEERS 45L) using information uploaded by third parties not affiliated or related to CHEERS 45L. Therefore, CHEERS 45L is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this certificate.

Project Name..... Green Valley Estates Date..01/06/21 09:25:08
 Plan Name..... Plan 2559 (2019) *****
 Documentation Author... *v7.6*
 Builder..... *****

Climate Zone..... CASACRAMENTOMETROPOLITA in IECC Climate Zone 3
 Compliance Method..... MICROPAS7 v7.60 r05 for Tax Credits by Enercomp, Inc.

MICROPAS7 v7.60 File-APP45LRUN Wth-CASACRAM
 User#-MP0001 User- Run-45L

MICROPAS7 ENERGY USE SUMMARY			
Normalized Modified Loads (kBtu/sf-yr)	Reference Design	Proposed Design	Percent Improvement
Space Heating.....	3.08	0.36	88.3%
Space Cooling.....	11.56	4.60	60.2%
Total	14.64	4.96	66.1%
Envelope Improvement		64.4%	
*** Building meets Tax Credit Criteria ***			
*** HERS Verification Required for Tax Credits ***			
*** TaxCredit Energy rules for IECC Climate Zone 3 ***			
*** Tax Credit rules in accordance with RESNET 001-16 ***			

GENERAL INFORMATION

HERS Verification..... Required
 Conditioned Floor Area..... 1000 sf
 Building Type..... Single Family Detached
 Construction Type New
 Fuel Type NGasEDryer
 Building Front Orientation. Front Facing 0 deg (N)
 Number of Dwelling Units... 1
 Number of Building Stories. 2
 Weather Data Type..... FullYear

Floor Construction Type.... Slab On Grade
 Number of Building Zones... 1
 Conditioned Volume..... 10000 cf
 Slab-On-Grade Area..... 1000 sf
 Glazing Percentage..... 1.1 % of floor area
 Average Glazing U-factor... 0.75 Btu/hr-sf-F
 Average Glazing SHGC..... 0.65
 Average Ceiling Height..... 10 ft

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BUILDING ZONE INFORMATION

Zone Type	Floor Area (sf)	Volume (cf)	# of Dwell Units	# of People	Cond- it- ioned	Thermo- stat Type	Vent Height (ft)	Vent Area (sf)	Verified Leakage or Housewrap
Residence	1000	10000	1.00	3.0	Yes	Setback	8.0	Standard	3.6 SLA
SLA = 0.00036	(ft2/ft2)	Sensible =			42,471	Btu/day	Latent =		10,033 Btu/day

OPAQUE SURFACES

Surface	Frame Type	Area (sf)	U- factor or	Cavity R-val	Sheath- ing R-val	Act Azm	Tilt	Solar Gains	Appendix U-factor Reference	Location/ Comments
1 Wall	Wood	100	0.026	30	6	180	90	No	None	Comments
2 Wall	Wood	239	0.026	30	6	0	90	Yes	None	Comments
3 Wall	Wood	500	0.026	30	6	0	90	Yes	None	Comments
4 Wall	Wood	100	0.026	38	6	90	90	No	None	Comments
5 Wall	Wood	100	0.026	38	6	270	90	No	None	Comments
6 CoolRoof	Wood	1000	0.026	38	4	n/a	0	No	None	Comments
Emittance = 0.90		Attic Vent =		3.33 ft2		Crawlspace Vent =		0.00 ft2		

FENESTRATION SURFACES

Orientation	Area (sf)	U- factor	SHGC	Act Azm	Tilt	Exterior Shade Type	Location/Comments
1 Wind Front (N)	11.0	0.750	0.650	0	90	Standard	SHGCw=0.553/SHGCs=0.455

OVERHANGS

Surface	Area (sf)	Window		Overhang			
		Width	Height	Depth	Height	Left Extension	Right Extension
1 Window	11.0	10.0	10.00	10.0	10.0	10.0	10.0

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SIDE FINIS

Surface	Area (sf)	Window		Left Fin			Right Fin		
		Width	Height	Ex-tension	Depth	Height	Ex-tension	Depth	Height
1 Window	11.0	10.00	10.00	10.0	10.0	10.0	10.0	10.0	10.0

THERMAL MASS

Mass Type	Area (sf)	Thick (in)	Heat Cap	Conductivity	UIMC	Surface R-value	Location/Comments
1 SlabOnGrade	1000	4.0	50.0	5.00	5.00	R-10.0	Comments

HVAC SYSTEMS

System Type	Minimum Efficiency	Verified EER	Verified Refrig or TXV	Verified Charge	Verified Adequate Airflow	Verified Fan Watt Draw	Verified Maximum Cooling Capacity
Furnace	0.800 AFUE	n/a	n/a	n/a	n/a	n/a	n/a
ACsplit	14.00 SEER	No	No	No	No	No	No

HVAC SIZING

System Type	Total Heating Load (Btu/hr)	Sensible Cooling Load (Btu/hr)	Design Cooling Capacity (Btu/hr)	Verified Maximum Cooling Capacity (Btu/hr)
Furnace	8561	n/a	n/a	n/a
ACsplit	n/a	4123	4239	n/a

Sizing Location..... APP45LRUN
 Winter Outside Design..... 23 F
 Winter Inside Design..... 70 F
 Summer Outside Design..... 55 F
 Summer Inside Design..... 75 F
 Summer Range..... 9.7 F

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DUCT SYSTEMS

System Type	Duct Location	Duct R-value	Verified Duct Leakage	Verified Surface Area	Verified Buried Ducts	Modeled Duct Efficiency
Furnace	Attic	R-8	No	No	No	0.8
ACSplit	Attic	R-8	No	No	No	0.8

SPECIAL FEATURES AND MODELING ASSUMPTIONS

*** Items in this section should be documented on the plans, ***
 *** installed to manufacturer specifications, and verified ***
 *** during plan check and field inspection. ***

This building incorporates a Cool Roof.

This building incorporates a High Mass Design.

HERS REQUIRED VERIFICATION

*** Items in this section require field testing and/or ***
 *** verification by a certified home energy rater under the ***
 *** supervision of an approved HERS provider using approved ***
 *** testing and/or verification methods. ***

HERS verification always required for tax credits.

This building incorporates Grade I HERS verified Insulation Installation.

REMARKS
