PERFORMANCE CERTIFICATE: Residential (Part 1 of 5) CF-1R Project Name Building Type III Single Family III Addition Alone Date Dennis Smith III Dennis CF-1R	PERFORMANCE CERTIFICATE: Residential (Part 2 of 5) CF-1R Project Name Building Type ☑ Single Family ☐ Addition Alone Date	Project Name Project Name	ATE OF COMPLIANCE: Residential Building Type Id Single Fa
2,107 Addition 600	ti Family 12	ANNUAL ENERGY USE SUMMARY Standard Proposed Margin TDV (kBtu/ft²-vr)	-1 1 5
☐ No Special Features If	docu docu adeq	22.89 20.50 2.39 13.26 13.01 0.24 7.67 7.33 0.34	Area Factor Cavity Exterior Frame Interior Frame Azm Tilt 238 0.102 R-13 90 /r 18 0.500 None 135 90 /r 262 0.102 R-13 45 90 /r
ATION Area Special Arction Type Cavity (ft²) Features (see	The HVAC System Existing FAU does not include a cooling system, field verification is not necessary.	estic Hot Water 18.16 1 0.00 Totals 61.98 5	180
Wood Framed R-13 750 Opaque Door None 18		APLIES - N	None 0 180 B None 135 90 B
Roof Wood Framed Attic R-30 600 New Slab Unheated Slab-on-Grade None 600 Perim = 81" New		(SE) 135 deg Ext. Walls/Roof Wall Area Area	fall 425 0.356 None 225 90 Existing 4.3.1-A1 First Floor fall 158 0.356 None 315 90 Existing 4.3.1-A1 First Floor fall 202 0.356 None 45 90 Existing 4.3.1-A1 First Floor
1.507 Perim = 147" 993		Natural Gas (SW) 446 0 (NW) 530	None 45 90 8 R-11 135 0 8
Opaque Door None 40 Wood Framed Attic R-11 1.507		2.107 8.6	
Orientation Area(fr) Factor SHGC Overhang Sidefins Shades Status		Hactor: 101AL: 101AL: 16C: 0.73 Fenestration/CFA Ratio: 8	Area U-Factor SHGC Azm Status 40.0 0.390 NFRC 0.37 NFRC 315 New Milg. 27.0 1.190 Default 0.83 Default 135 Existing Sing
1.190 0.83 none			4 Window 21.5 1.190 Default 0.83 Default 315 Existing Single Non-Metal Clear First Floor 5 Window 15.0 1.190 Default 0.83 Default 45 Existing Single Non-Metal Clear First Floor
1.190 o			
	HERS REQUIRED VERIFICATION Items in this section require field testing and/or verification by a certified HERS Rater. The inspector must receive a completed CF-4R form for each of the measures listed below for final to be given.	STATEMENT OF COMPLIANCE	
		This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 the Administrative Regulations and Part 6 the Efficiency Standards of the California Code of Regulations.	n Standards, NFRC = Labeled Valu
HVAC SYSTEMS Oty. Heating Min. Eff Cooling Min. Eff Thermostat Status 1 Central Furnace 78% AFUE No Cooling 13.0 SEER Setback Existing		pertifies that the documentation is accurate and complete.	EXTERIOR SHADING DETAILS Window Overhang Exterior Shade Type SHGC Hgt Wd Len Hgt LExt RExt Dist Len Hgt Dist Len Hgt Hgt Hgt Len Hgt Hgt
Duct			2 Bug Screen 0.76 3 Bug Screen 0.76 4 Bug Screen 0.76 5 Bug Screen 0.76
Ducted Ducted Attic. Ceiling Ins. vented 4.1		with any other calculation of refrigerant charge, installer testing and certification and field verification by an approved HERS rater	
WATER HEATING Oty. Type Gallons Min. Eff Distribution Status		(i)	
EnergyPro 5. ר פֿין בחפרקיןSon	EnergyPro 5.1 by EnergySoft User Number: 5581 RunCode: 2010-11-11114:49:0 ID: 11111001 Page 4 of 10	EnergyPro 5.1 by EnergySoft	רים אין
	MANDATORY MEASURES SUMMARY: Residential (Page 1 of 3) MF-1R		MANDATORY MEASURES SUMMARY: Residential (Page 3 of 3) MF-1R
BUILDING ZONE INFORMATION Control of the control		OHY MEASURES SUMMARY: Residential (Page 2 of 3) MF-1R	
System Name Zone Name New Existing Altered Removed Volume Year Built HVAC System Addition 600 15.507 12.056 1958	NOTE: Low-rise residential buildings subject to the Standards must comply with all applicable mandatory measures listed, regardless of the compliance approach used. More stringent energy measures listed on the Certificate of Compliance (CF-1R, CF-1R-ADD, or CF-1R-ALT Form) shall supersede the items marked with an asterisk (*) below. This Mandatory Measures Summary shall be incorporated into the permit documents, and the applicable features shall be considered by all parties as minimum component performance specifications whether they are shown elsewhere in the documents or in this summary. Submit all applicable sections of the MF-1R Form with plans.	plenums installed, are sealed and insulated to meet the requirements of CMC Sections ply-air and return-air ducts and plenums are insulated to a minimum installed level of Repenings shall be sealed with mastic, tape or other duct-closure system that meets the rUL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is	§150(k)10: Permanently installed luminaires in bathrooms, attached and detached garages, laundry rooms, closets and utility rooms shall be high efficacy. Shall be high efficacy. EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by a manual-on occupant sensor certified to comply with the applicable requirements of §119. EXCEPTION 2: Permanently installed low efficacy luminaires in closets less than 70 square feet are not required to be controlled by a manual-on occupancy sensor.
	actured to limit certified U-Fac ulked and seak	ns defined or constructed with materials other than sealed and titioned air. Building cavities and support platforms may e compressed to cause reductions in the cross-sectional area. Il not be sealed with cloth back rubber adhesive duct tapes	y rooms shall be high efficacy lumnaires. EXCEPTION 1: Perman by rooms shall be high efficacy lumnaires. EXCEPTION 1: Perman they are controlled by either a dimmer switch that complies with the sor that complies with the applicable requirements of §119. EXCE effect located on a residential site is not required to comply with §1 paires recessed into insulated ceilings shall be listed for zero clear.
	ate type and i	astic and draw bands. Tor automatic dampers. conditioned space have either automatic or readily accessible, manually operated	their recessed into insurated behings shall be inseed of zero clean other nationally recognized testing/rating laboratory; and have a laten 2.0 CFM at 75 Pascals when tested in accordance with ASTM Easing and ceiling. In a comparison of the comp
Totals 600 0 1.507 0	§150(d): Ninimum R-13 insulation in vood-frame wall or equivalent U-factor. *§150(d): Minimum R-13 insulation in wood-frame wall or equivalent U-factor. *§150(d): Minimum R-13 insulation in raised wood-frame floor or equivalent U-factor.	age. including that due to sunlight, moisture. equipment maintenance, and wind. we or painted with a coating that is water retardant and provides shielding from solar ial.	ntrances, balconies, and porches, which are permanently mounted high efficacy. EXCEPTION 1: Permanently installed outdoor lowed by a manual on/off switch, a motion sensor not having an override or bypass:
HVAC SYSTEMS System Name Oty. Heating Type Min. Eff. Cooling Type Min. Eff. Thermostat Type Status HVAC System 1 Central Furnace 78% AF-UE No Cooling Type 13.0 SEER Setback Existing	§150(f): Air retarding wrap is tested. labeled, and installed according to ASTM E1677-95(2000) when specified on the CF-1R Form. §150(g): Mandatory Vapor barrier installed in Climate Zones 14 or 16. §150(f): Water absorption rate for slab edge insulation material alone without facings is no greater than 0.3%; water vapor permeance rate is no greater than 2.0 perm/inch and shall be protected from physical damage and UV light deterioration.	62.2-2007 Ventilation and Acceptable Indoor Air nethod of providing the Whole Building Ventilation	e clock not having an override or bypass switch that disables the sEMCS) not having an override or bypass switch that allows the lum to comply with Exception1 to §150(k)13 may be controlled by a terprovided that the motion sensor is automatically reactivated within around swimming pool, water features, or other location subject to luminaries.
HVAC DISTRIBUTION Professional	§150(e)1A: Masonry or factory-built fireplaces have a closable metal or glass door covering the entire opening of the firebox. §150(e)1B: Masonry or factory-built fireplaces have a combustion outside air intake, which is at least six square inches in area and is equipped with a with a readily accessible, operable, and tight-fitting damper and or a combustion-air control device. §150(e)2: Continuous burning pilot lights and the use of indoor air for cooling a firebox jacket, when that indoor air is vented to the	the heater; a permanent weatherproof plate or card light. Ilight. Ill be installed with at least 36" of pipe between filter a solar heating.	nn 148: OR i more vehick larages for 8
System Name Heating Cooling Duct Location R-Value Tested? Status HVAC System Ducted Ducted Attic. Ceiling Ins. vented 4.2 □ Existing	Space Conditioning, Water Heating and Plumbing System Measures: §110-§113: HVAC equipment, water heaters, showerheads, faucets and all other regulated appliances are certified by the Energy Commission. §113(c)5: Water heating recirculation loops serving multiple dwelling units and High-Rise residential occupancies meet the air release	that adequately mix the pool water, ar ctric demand periods. nent meet the pump sizing, flow rate. p	minaires. EXCEPTION: Permanently installed it sensor(s) certified to comply with the applications.
WATER HEATING SYSTEMS	valve, backflow prevention, pump isolation valve, and recirculation loop connection requirements of §113(c)5. §115: Continuously burning pilot lights are prohibited for natural gas; fan-type central furnaces, household cooking appliances (appliances with an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt), and pool and spa heaters.	§150(k)1: High efficacy luminaires or LED Light Engine with Integral Heat Sink has an efficacy that is no lower than the efficacies contained in Table 150-C and is not a low efficacy luminaire as specified by §150(k)2. §150(k)3: The wattage of permanently installed luminaires shall be determined as specified by §130(d).	
System Name Cty. Type Distribution (Btuh) (gal) or RE Pilot Value Status No Pipe Insulation 40.000 50 0.58 n/a n/a Existing	§150(h): Heating and/or cooling loads are calculated in accordance with ASHRAE. SMACNA or ACCA. §150(j): Heating systems are equipped with thermostats that meet the setback requirements of Section 112(c). §150(j)1A: Storage gas water heaters rated with an Energy Factor no greater than the federal minimal standard are externally wrapped with insulation having an installed thermal resistance of R-12 or greater. §150(j)1B: Unfired storage tanks, such as storage tanks or backup tanks for solar water-heating system, or other indirect hot water	and night lights integral to a permanently installed luminaire or exhaust fan shum efficacies contained in Table 150-C and shall not contain a line-voltage son onsume no more than five watts of power as determined by §130(d), and shall not contain the state of the contained by §130(d).	
MULTI-FAMILY WATER HEATING DETAILS HOTWARD Piping Length HYDRONIC HEATING SYSTEM PIPING	First 5 feet of hot and cold water pipes closest to water heater tank, non-recirculating systems, and entire length of ing sections of hot water pipes are insulated per Standards Table 150-B.	shall meet the required tal rated wattage of pe	
Control Cty. HP Henum Cutside Buried A in System Name Length Diameter Thick.	ines), and piping insulated between heating sour. hot water systems >15 psi, meets the requirement maintenance.	exempt from the 50% high efficacy requirement when: all low efficacy luminaires in the kitchen are controlled by a manual on occupant sensor, dimmer, energy management system (EMCS), or a multi-scene programmable control system; and all permanently installed luminaries in garages, laundry rooms, closets greater than 70 square feet, and utility rooms are high efficacy and controlled by a manual-on occupant sensor. §150(k)9: Permanently installed lighting that is internal to cabinets shall use no more than 20 watts of power per linear foot of	
	§150(j)3A: Insulation for chilled water piping and refrigerant suction lines includes a vapor retardant or is enclosed entirely in conditioned space. §150(j)4: Solar water-heating systems and/or collectors are certified by the Solar Rating and Certification Corporation.		
EnergyPro 5.1 by EnergySoft User Number: 5581 RunCode: 2010-11-11714:49:0 ID: 11111001 Page 7 of 10	EnergyPro 5.1 by EnergySoft User Number: 5581 RunCode: 2010-11-11714:49:09 ID: 111111001 Page 8 of 10	EnergyPro 5.1 by EnergySoft User Number: 5581 RunCade: 2010-11-11714:49:09 ID: 11111001 Page 9 of 10	EnergyPro 5.1 by EnergySoft User Number. 5581 RunCade: 2010-11-11T14:49:09 ID: 11111001 Page 10 of 10

REVISIONS:

12/23/10

2 01/18/11

DATE: 11/15/2010

XXXX WHITEHEAD PL.

PROJECT NAME & ADDRESS: SMITH'S ROOM ADDITION

MF-1R Date 11/11/2010

MR.

SMITH

LA MESA, CA. 91942

Mar-co.

HOUSE PLANS & DESIGNS

PLANS-DRAFTING-DESIGNS-3D-BUILDING PERMITS

MARCO A. LAUREANO

LICENSE: 16964 WWW.MARCOHOUSEPLANS.COM

Mar-co.

760-805-2358 760-941-2678

HOUSE PLANS & DESIGNS

PLANOS-DIBUJO-DISEÑOS-3D-PERMISOS

MARCO A. LAUREANO

760-805-2358 LICENSE: 16964 760-941-2678 WWW.MARCOHOUSEPLANS.COM

XXXX WHITEHEAD PL.

OWNER'S NAME & ADDRESS:

LA MESA, CA. 91942

AS SPECIFIED

DRAWN & PREPARED BY:

MARCO A. LAUREANO

T-24 9