

8/13/20

Job#23421 AN

Jeff Farrell
 Farrell Faber & Associates, Inc.
 416 B Street, Suite C
 Santa Rosa, CA 95401
 707-579-3811
 CBECC-Res 2019 1.2
 Re: 3719 Paxton Place in Santa Rosa, CA

CONSERVATION FOR THE CALIFORNIA LIFESTYLE



CL&E

A Division of William Lilly & Associates
 Title 24 Compliance-Residential/Non-Residential
 3015 Dale Court
 Ceres, CA 95307
 Ph: 209-538-2879 Fx: 209-538-2885

Climate Zone 2

2019 Code Compliance

JOB COPY

Envelope	Photovoltaic	N/A
	Battery Capacity	N/A
	Orientation	East Facing
	Plan (Stucco/Siding Finish)	Option 3
	File Name	FF2682PP
	Square Footage	2682
	% Above Code	0.4%
	% Cooling Improvement	-23.7%
	Number of Stories	2
	Glazing Percentage	18.85%
HVAC	Roofing Material	Asphalt
	Reflectance/Emittance	0.1/0.85
	Attic Floor/Vault**	R-49
	Attic Below Roof Deck	-
	Radiant Barrier	Yes
	Wall 2x4	-
	Wall 2x6	R-21
	Knee Wall	-
	Floor Over Garage/Exterior	R-19
	Sub Floor/Slab	R-19
HERS Inspections	Minimum SEER/EER Value	16.0 / 13.0
	Minimum AFUE	0.95
	Duct Insulation	R-6.0
	Whole House Fan (CFM)	-
	Fan Wattage (W/CFM)	Yes (0.45)
	Airflow (CFM)	Yes (270)
	Duct Testing Required	Yes (5.0%)
	Indoor Air Quality (CFM)	Yes (89) HRV
	Kitchen Range Hood	Yes
	Refrigerant Charge	Yes
H ₂ O	SEER Verification	Yes
	EER Verification	Yes
	Whole House Fan Verification	-
	Infiltration (CFM)	-
	Ducts in Conditioned Space	-
	Low Leakage Air Handler	Yes
	Buried Ducts	-
	Surface Area	-
	Insulation Inspection**	-
	Fuel Type	Natural Gas
	Uniform Energy Factor (Gal.)	0.95(0)
	Distribution	Standard
Windows		<u>U-Value</u> <u>SHGC</u>
Operable		0.30 0.23
Fixed		0.30 0.23
Sliding Glass Door		0.30 0.23
French Door		0.30 0.23

Date of Plans: 5/20

EXPLANATION OF TITLE-24 DATASHEET

PLAN: The square footage of plan and/or plan name used.

ZONE: California is divided into 16 climate zones each having different weather conditions. Your home's energy efficiency requirements are determined by whether your house is in a hot, cold, or mild climate zone.

ORIENTATION: The direction the front door faces expressed in degrees or North, South, East, West (N/S/E/W).

ATTIC: R-value of insulation in accessible/open attic area.

VAULT: R-value of insulation in vaulted areas with no attic access.

WALL: R-value of insulation between wall studs.

KNEEWALL: R-value of insulation in walls adjacent to open attics.

SUBFLOOR: R-value of insulation in sub floor.

OVERHANG: R-value of insulation over garage or exterior.

SEER: Minimum cooling equipment efficiency.

*(No cooling equipment is designed to cool 100% of time and in all situations. Other relevant design factors such as airflow requirements, outdoor design temperatures, coil sizing, availability of equipment, over sizing safety margin, etc., must also be considered. It is the HVAC contractor responsibility to consider all factors when selecting the HVAC equipment.)

AFUE: A measure of the minimum furnace efficiency. (Higher numbers are better)

AIRFLOW: Verification of improved system airflow rate (CFM) in ducted split and packaged space conditioning systems. If ducts are not designed & installed correctly fan watt & air flow test may have difficulty passing.

FAN WATT DRAW: Verification of reduced fan power (Watts/cfm) achieved through improved air distribution system design, including more efficient motors and ducts that have less resistance to airflow.

INDOOR AIR QUALITY (IAQ): If the measured continuous/intermittent airflow is equal to or greater than the value for whole-building ventilation airflow rate (CFM), the mechanical ventilation system complies.

DUCT INSULATION: Minimum insulation R-value of air ducts, except in conditioned space.

DUCT TESTING: Indicates whether or not the duct system is to be airtight. If required, an independent HERS Rater has to test the ducts to ensure they leak no more than 5% and provide verification to the T24 registry and building department.

REFRIGERANT CHARGE INSPECTION: The TXV Valve regulates the charge and airflow to increase air conditioner efficiency. If used for compliance, an independent HERS Rater must verify the TXV Valve is installed. RC can't be tested when outdoor temperature is too low and HVAC & rater may have to return at a later date at an extra cost.

PIPE INSULATION: R-4 or greater insulation applied to all 3/4" or larger, non-recirculating hot water mains.

WATER HEATER ENERGY FACTOR/RECOVERY EFFICIENCY (TANK SIZE) The energy factor or the efficiency rating and the number of minimum gallons required for the water heaters. The E.F. number is usually listed on a separate tag beside the yellow *EnergyGuide* label. (Higher numbers are better)

QUALITY INSULATION INSTALLATION (QII): An independent HERS Rater must verify the proper installation of insulation. QII inspections commonly fail, causing delays in construction.

WINDOW U-VALUE / U Factor: Minimum U-value of all installed windows. (low values = low thermal escape)

SHGC: Solar Heat Gain Coefficient. A measure of how well your windows stop solar heat from entering your home. A SHGC value of .65 means 65% of the heat is getting into your home and 35% of the heat is being blocked. (low values are good for hot climates) **Fixed/FX** refers to fixed windows. **XO/SH** refers to sliding windows. **SGD** refers to sliding glass door. **FRD/FD** refers to French doors.

CERTIFICATE OF COMPLIANCE**CF1R-PRF-01E****Project Name:** 3719 Paxton Place**Calculation Date/Time:** 2020-08-13T10:24:28-07:00**(Page 1 of 14)****Calculation Description:** Title 24 Analysis**Input File Name:** FF2682PP.ribd19

GENERAL INFORMATION					
01	Project Name	3719 Paxton Place			
02	Run Title	Title 24 Analysis			
03	Project Location	3719 Paxton PLace			
04	City	Santa Rosa	05	Standards Version	2019
06	Zip code	95401	07	Software Version	CBECC-Res 2019.1.2
08	Climate Zone	2	09	Front Orientation (deg/ Cardinal)	90
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	NewConstruction	13	Number of Bedrooms	4
14	Addition Cond. Floor Area (ft ²)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft ²)	n/a	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft ²)	2682	19	Glazing Percentage (%)	18.85%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Is Natural Gas Available?	Yes			

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below

Registration Number: 420-P010098226A-000-000-00000000-0000

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CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 08/13/2020 10:39

HERS Provider: CHEERS

Report Version: 2019.1.108

Report Generated: 2020-08-13 10:27:41

Schema Version: rev 20200101

CERTIFICATE OF COMPLIANCE**Project Name:** 3719 Paxton Place**Calculation Description:** Title 24 Analysis**Calculation Date/Time:** 2020-08-13T10:24:28-07:00**Input File Name:** FF2682PP.ribd19**CF1R-PRF-01E****(Page 2 of 14)**

ENERGY DESIGN RATING				
	Energy Design Ratings		Compliance Margins	
	Efficiency ¹ (EDR)	Total ² (EDR)	Efficiency ¹ (EDR)	Total ² (EDR)
Standard Design	46	46		
Proposed Design	45.9	45.9	0.1	0.1
RESULT: ³ : COMPLIES				
1: Efficiency EDR includes improvements to the building envelope and more efficient equipment				
2: Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries				
3: Building complies when efficiency and total compliance margins are greater than or equal to zero				
- Standard Design PV Capacity: 0.00 kWdc - PV System(s) removed due to Reduced PV Requirement of 0 kWdc				

ENERGY USE SUMMARY				
Energy Use (kTDV/ft ² -yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	20.45	19.69	0.76	3.7
Space Cooling	7.92	9.8	-1.88	-23.7
IAQ Ventilation	6.69	6.69	0	0
Water Heating	10.91	9.6	1.31	12
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	45.97	45.78	0.19	0.4

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REQUIRED PV SYSTEMS - SIMPLIFIED											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
0	AB-178 - Declared emergency area	Standard	Fixed (roof mount)	none	true		n/a	n/a	n/a	n/a	

REQUIRED SPECIAL FEATURES											
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.											
- Indoor air quality, balanced fan - Ceiling has high level of insulation - Window overhangs and/or fins											

HERS FEATURE SUMMARY											
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry											
Building-level Verifications: - Indoor air quality ventilation - Kitchen range hood Cooling System Verifications: - Minimum Airflow - Verified EER - Verified SEER - Verified Refrigerant Charge - Fan Efficacy Watts/CFM Heating System Verifications: -- None -- HVAC Distribution System Verifications: - Duct leakage testing - Low-leakage Air Handling Unit Domestic Hot Water System Verifications: -- None --											

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BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft ²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
3719 Paxton Place	2682	1	4	2	0	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft ²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
2nd Floor	Conditioned	HVAC	1419	9	DHW	N/A
1st Floor	Conditioned	HVAC	1263	10	DHW	N/A

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft ²)	Window and Door Area (ft ²)	Tilt (deg)
Front 2x6 Wall	2nd Floor	R-21 Wall	90	Front	360	78	90
Left 2x6 Wall	2nd Floor	R-21 Wall	180	Left	396	28	90
Back 2x6 Wall	2nd Floor	R-21 Wall	270	Back	360	80	90
Right 2x6 Wall	2nd Floor	R-21 Wall	0	Right	396	52	90
Front 2x6 Wall 2	1st Floor	R-21 Wall	90	Front	130	64	90
Front 2x6 Wall 2 - Siding	1st Floor	R-21 Wall - Siding	90	Front	50	0	90
Left 2x6 Wall 2	1st Floor	R-21 Wall	180	Left	341	25	90
Back 2x6 Wall 2	1st Floor	R-21 Wall	270	Back	400	134.5	90
Right 2x6 Wall 2	1st Floor	R-21 Wall	0	Right	520	44	90
Garage Wall	1st Floor>>Garage	R-21 Wall - Interior	n/a	n/a	389	21	n/a
Roof	2nd Floor	R-49 Attic Roof	n/a	n/a	1369	n/a	n/a
FAU Platform	2nd Floor	R-19 Attic Roof	n/a	n/a	50	n/a	n/a

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OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft ²)	Window and Door Area (ft ²)	Tilt (deg)
Roof-2	1st Floor	R-49 Attic Roof	n/a	n/a	290	n/a	n/a
Roof - Garage	Garage	R-0 Attic Roof	n/a	n/a	52	n/a	n/a
Floor Over Exterior	2nd Floor	R-19 Floor No Crawlspace	n/a	n/a	87	n/a	n/a
Floor Over Crawlspace	1st Floor	R-19 Raised Floor	n/a	n/a	1263	n/a	n/a
Floor Over Garage	2nd Floor	R-19 Floor No Crawlspace - Interior	n/a	n/a	456	n/a	n/a
Front Wall - Garage	Garage	R-0 Wall	90	Front	220	128	90
Left Wall - Garage	Garage	R-0 Wall	180	Left	235	21	90
Right Wall - Garage	Garage	R-0 Wall	0	Right	57	0	90

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic House	Attic Roof House	Ventilated	6	0.1	0.85	Yes	No
Attic Garage	Attic Roof Garage	Ventilated	6	0.1	0.85	No	No

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
2-3030 FX	Window	Front 2x6 Wall	Front	90	3	3	2	18	0.3	NFRC	0.23	NFRC	Bug Screen
4-3050 Oper	Window	Front 2x6 Wall	Front	90	3	5	4	60	0.3	NFRC	0.23	NFRC	Bug Screen
3-2020 FX	Window	Left 2x6 Wall	Left	180	2	2	3	12	0.3	NFRC	0.23	NFRC	Bug Screen
2-2040 Oper	Window	Left 2x6 Wall	Left	180	2	4	2	16	0.3	NFRC	0.23	NFRC	Bug Screen
2-2650 Oper	Window	Back 2x6 Wall	Back	270	2.5	5	2	25	0.3	NFRC	0.23	NFRC	Bug Screen
2-3050 Oper	Window	Back 2x6 Wall	Back	270	3	5	2	30	0.3	NFRC	0.23	NFRC	Bug Screen

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FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
1-5050 FX	Window	Back 2x6 Wall	Back	270	5	5	1	25	0.3	NFRC	0.23	NFRC	Bug Screen
2-2650 Oper 2	Window	Right 2x6 Wall	Right	0	2.5	5	2	25	0.3	NFRC	0.23	NFRC	Bug Screen
1-3030 FX	Window	Right 2x6 Wall	Right	0	3	3	1	9	0.3	NFRC	0.23	NFRC	Bug Screen
1-3060 FX	Window	Right 2x6 Wall	Right	0	3	6	1	18	0.3	NFRC	0.23	NFRC	Bug Screen
2-3060 Oper	Window	Front 2x6 Wall 2	Front	90	3	6	2	36	0.3	NFRC	0.23	NFRC	Bug Screen
3680 Entry Door FD	Window	Front 2x6 Wall 2	Front	90			1	28	0.3	NFRC	0.23	NFRC	Bug Screen
2-2650 Oper 3	Window	Left 2x6 Wall 2	Left	180	2.5	5	2	25	0.3	NFRC	0.23	NFRC	Bug Screen
1-9080 SGD	Window	Back 2x6 Wall 2	Back	270	9	8	1	72	0.3	NFRC	0.23	NFRC	Bug Screen
3-2650 Oper	Window	Back 2x6 Wall 2	Back	270	2.5	5	3	37.5	0.3	NFRC	0.23	NFRC	Bug Screen
1-5050 FX 2	Window	Back 2x6 Wall 2	Back	270	5	5	1	25	0.3	NFRC	0.23	NFRC	Bug Screen
1-3080 FD	Window	Right 2x6 Wall 2	Right	0	3	8	1	24	0.3	NFRC	0.23	NFRC	Bug Screen
1-2040 Oper	Window	Right 2x6 Wall 2	Right	0	2	4	1	8	0.3	NFRC	0.23	NFRC	Bug Screen
3-2020 FX 2	Window	Right 2x6 Wall 2	Right	0	2	2	3	12	0.3	NFRC	0.23	NFRC	Bug Screen

OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft ²)	U-factor
Garage Interior Door	Garage Wall	21	0.2
16080 Garage Rollup	Front Wall - Garage	128	1
Garage Door	Left Wall - Garage	21	1

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OVERHANGS AND FINIS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
2-3030 FX	1	0.6	0	0	0	0	0	0	0	0	0	0	0
4-3050 Oper	1	3.5	0	0	0	0	0	0	0	0	0	0	0
3-2020 FX	1	0.5	0	0	0	0	0	0	0	0	0	0	0
2-2040 Oper	1	5	0	0	0	0	0	0	0	0	0	0	0
2-2650 Oper	1	0.5	0	0	0	0	0	0	0	0	0	0	0
2-3050 Oper	1	3.5	0	0	0	0	0	0	0	0	0	0	0
1-5050 FX	1	5	0	0	0	0	0	0	0	0	0	0	0
2-2650 Oper 2	1	3	0	0	0	0	0	0	0	0	0	0	0
1-3030 FX	1	3	0	0	0	0	0	0	0	0	0	0	0
1-3060 FX	1	6.5	0	0	0	0	0	0	0	0	0	0	0
2-3060 Oper	1	4	0	0	0	0	0	0	0	0	0	0	0
2-2650 Oper 3	1	15	0	0	0	0	0	0	0	0	0	0	0
1-9080 SGD	1	1.5	0	0	0	0	0	0	0	0	0	0	0
3-2650 Oper	1	1.5	0	0	0	0	0	0	0	0	0	0	0
1-5050 FX 2	1	1.5	0	0	0	0	0	0	0	0	0	0	0
1-3080 FD	1	1	0	0	0	0	0	0	0	0	0	0	0
1-2040 Oper	1	1.5	0	0	0	0	0	0	0	0	0	0	0

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OVERHANGS AND FINIS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
3-2020 FX 2	1	1.5	0	0	0	0	0	0	0	0	0	0	0

SLAB FLOORS						
01	02	03	04	05	06	07
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade - Garage	Garage	508	52	None	0%	No

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Exterior Finish: 3 Coat Stucco
R-21 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.069	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: 3 Coat Stucco
R-21 Wall - Siding	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.066	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: Wood Siding/sheathing/decking
R-21 Wall - Interior	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.064	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Other Side Finish: Gypsum Board

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OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Attic Roof Garage	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-0	None / None	0.494	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Top Chrd Inside Finish: Gypsum Board
Attic Roof House	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-0	None / None	0.494	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Top Chrd Inside Finish: Gypsum Board
R-19 Raised Floor	Floors Over Crawlspace	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.049	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x6
R-0 Attic Roof	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.481	Cavity / Frame: no insul. / 2x4 Inside Finish: Gypsum Board
R-49 Attic Roof	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-49	None / None	0.02	Over Ceiling Joists: R-39.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
R-19 Attic Roof	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-19	None / None	0.049	Over Ceiling Joists: R-9.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
R-19 Floor No Crawlspace	Exterior Floors	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.05	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x6

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CERTIFICATE OF COMPLIANCE

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OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-19 Floor No CrawlSpace - Interior	Interior Floors	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.048	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x6 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION			
01	02	03	04
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS						
01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW	Domestic Hot Water (DHW)	Standard Distribution System	UEF 0.95 Tankless (1)	n/a	None	n/a

WATER HEATERS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition
UEF 0.95 Tankless	Gas	Consumer Instantaneous	1	0	0.95-UEF	200000-Btu/Hr	0	n/a	n/a	n/a	n/a

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WATER HEATING - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
HVAC	Heating and cooling system other	Furnace .95	Split 16 / 13	HVAC Fan	Ducts	Setback	New	NA	1	1

HVAC - HEATING UNIT TYPES			
01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Furnace .95	Central gas furnace	1	AFUE-95

HVAC - COOLING UNIT TYPES							
01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER	Efficiency SEER	Zonally Controlled	Mult-speed Compressor	HERS Verification
Split 16 / 13	Central split AC	1	13	16	Zonally Controlled	Single Speed	Split 16 / 13-hers-cool

HVAC COOLING - HERS VERIFICATION					
01	02	03	04	05	06
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge
Split 16 / 13-hers-cool	Required	270	Required	Required	Required

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HVAC - DISTRIBUTION SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
			Duct Ins. R-value		Duct Location		Surface Area				
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Ducts	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Sealed and Tested	Ducts-hers-dist

HVAC DISTRIBUTION - HERS VERIFICATION								
01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Ducts-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Required	No

HVAC - FAN SYSTEMS			
01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan	HVAC Fan	0.45	HVAC Fan-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION		
01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan-hers-fan	Required	0.45

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IAQ (INDOOR AIR QUALITY) FANS					
01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	IAQ Recovery Effectiveness - SRE
SFam IAQVentRpt 1-1	89	0.83	Balanced HRV	67	n/a



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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Anthony Nunez	Documentation Author Signature: <i>Anthony Nunez</i>
Company: California Living & Energy	Signature Date: 08/13/2020
Address: 3015 Dale Court	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Ceres, CA 95367	Phone: 209-538-2879
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. 2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name: Bianca Miller	Responsible Designer Signature: <i>Bianca Miller</i>
Company: Farrell-Faber and Associates	Date Signed: 08/13/2020
Address: 416 B Street, Suite C	License:
City/State/Zip: Santa Rosa, CA 95401	Phone: (707) 579-3811

Digitally signed by ConSol Home Energy Efficiency Rating System Services, Inc. (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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