

KERN COUNTY BUILDING INSPECTION DIVISION – SINGLE-FAMILY RESIDENTIAL
ENERGY COMPLIANCE FOR ADDITIONS

Prescriptive Package A

Effective January 1, 2023

Permit No.: _____ Conditioned Floor Area: _____ Climate Zone: _____

Project Address: _____

			Climate Zone 13			Climate Zone 14			Climate Zone 16		
			<400ft²	400ft²-700ft²	>700ft²	<400ft²	400ft²-700ft²	>700ft²	<400ft²	400ft²-700ft²	>700ft²
Building Envelope											
Roof / Ceiling	Option B Below Roof Deck Insulation	With Air Space	R-19			R-19			R-19		
		Ceiling Insulation	R-38			R-38			R-38		
		Radiant Barrier	NR			NR			NR		
	Option C Ducts in Conditioned	Ceiling Insulation	R-38			R-38			R-38		
		Radiant Barrier	REQ			REQ			NR		
Walls	Above Grade	Framed	U0.048			U0.048			U0.048		
		Mass Wall Interior	U0.077; R-13			U0.077; R-13			U0.059; R-17		
		Mass Wall Exterior	U0.125; R-8.0			U0.125; R-8.0			U0.077; R-13		
	Below Grade	Interior	U0.077; R-13			U0.077; R-13			U0.067; R-15		
		Exterior	U0.200; R-5.0			U0.100; R-10			U0.053; R-19		
Floors	Slab Perimeter		NR			NR			U0.058; R-7.0		
	Raised Floor		U0.037; R-19			U0.037; R-19			U0.037; R-19		
	Concrete Raised Floor		U0.092; R-8.0			U0.092; R-8.0			U0.092; R-8.0		
Quality Insulation Installation (QII)			NR	NR	Yes	NR	NR	Yes	NR	NR	Yes
Roofing Products¹	Low-sloped (≤2:12)	Aged Solar Reflect.	0.63			NR			NR		
		Thermal Emittance	0.75			NR			NR		
	Steep-sloped (>2:12)	Aged Solar Reflect.	0.20			0.20			NR		
		Thermal Emittance	0.75			0.75			NR		
Fenestration	Maximum U-factor		0.30			0.30			0.30		
	Maximum SHGC		0.23			0.23			NR		
	Maximum Total Area²		30%, 75ft²	25%, 120ft²	20%, 175 ft²	30%, 75ft²	25%, 120ft²	20%, 175 ft²	20%, 175 ft²		
	Maximum West Facing Area²		60ft²	60ft²	5% or 70 ft²	60ft²	60ft²	5% or 70 ft²	NR		
Door	Maximum U-factor		0.20			0.20			0.20		
HVAC System											
Space Heating³,⁴	If Gas, AFUE⁵		N/A			N/A			MIN		
	If Heat Pump, HSPF/HSPF²⁶		MIN			MIN			MIN		
Space Cooling⁴	SEER/SEER²⁷		MIN			MIN			MIN		
	Refrigerant Charge Verification or Fault Indicator Display		REQ			REQ			NR		
	IAQ Fan⁸		NR	NR	REQ⁸	NR	NR	REQ⁸	NR	NR	NR
Central Air Handlers	Whole House Fan Efficacy⁹,¹⁰		NR		0.58 W/CFM	NR		0.58 W/CFM	REQ⁹		
Ducts	Option B¹¹	Insulation	R-8			R-8			R-8		
		Insulation	R-6			R-6			R-6		
	Option C	§150.1(c)9B	REQ¹²			REQ¹²			REQ¹²		
		Leakage and Testing¹³		REQ			REQ			REQ	

	Climate Zone 13			Climate Zone 14			Climate Zone 16		
	<400ft ²	400ft ² -700ft ²	>700ft ²	<400ft ²	400ft ² -700ft ²	>700ft ²	<400ft ²	400ft ² -700ft ²	>700ft ²
Water Heating Option A, B, or C ¹⁴	A. A single 240-volt heat pump water heater (HPWH) B. A single 240-volt HPWH that meet NEEA Water Heater Specification Tier 3 C. A solar water-heating system with electric backup and minimum annual solar savings fraction of 0.7								

¹Not required for additions of 300 square feet or less.

²When percentages are given, the limit is the listed percentage of the added floor area. If two limits are given, the larger may be used.

³No electric-resistance space heating systems are allowed.

⁴When heating or cooling will be extended to an addition from the existing system(s), the existing heating and cooling equipment need not meet these requirements. Heating system capacity must be adequate to meet the minimum requirements of CBC Section 1203.1.

⁵A gas- or oil-fired warm-air furnace with a less than 225,000 Btu/hr input has been assumed for this worksheet. Please see CEC Section 110.2(a) for other heating equipment and systems.

⁶HSPF means "heating seasonal performance factor."

⁷Please see CEC Section 110.2(a) for a list of efficiency requirements specific to different heating and/or cooling types.

⁸An IAQ fan shall be sized using the formula below. IAQ fans are not required for additions 1,000 square feet or less.

$$\text{Required ventilation (CFM)} = 0.03 \times (\text{Conditioned floor area}) + 7.5 \times (\text{Number of bedrooms} + 1)$$

$$\text{_____ CFM} = 0.03 \times \text{_____ ft}^2 + 7.5 \times (\text{_____} + 1)$$

⁹Additions 700-999 sq. ft in size are not required to provide mechanical ventilation airflow. Additions 1,000 sq. ft and larger are required to provide a dwelling unit mechanical ventilation airflow as specified by the prescriptive method.

¹⁰Whole House Fans that utilize gas furnaces (air-handling unit) efficacy shall be 0.45 W/CFM, where required (see table).

¹¹Section 150.1(c)9A not required.

¹²Duct systems and air handlers of HVAC systems shall be located in conditioned space, and confirmed by field verification and diagnostic testing to meet the criterion of Reference Residential Appendix Section RA3.1.4.3.8. NOTE: Gas heating appliances installed in conditioned spaces must meet the combustion air requirements of the California Mechanical Code Chapter 7, as applicable.

¹³Not required when 25 or fewer linear feet of ducts are added/replaced.

¹⁴Climate Zones 13 and 14, a gas or propane instantaneous water heater with an input of 200,000 Btu per hour or less may be installed.