CITY OF SANTA FE, NEW MEXICO

BILL NO. 2009-33

INTRODUCED BY:

AN ORDINANCE

AMENDING CERTAIN ITEMS OF THE SANTA FE RESIDENTIAL GREEN BUILDING CODE, BEING EXHIBIT A OF CHAPTER VII SFCC 1987, TO CLARIFY AND CORRECT TEXT; TO PROVIDE EQUITABLE REQUIREMENTS FOR DIFFERENT HEATING AND AIR CONDITIONING EQUIPMENT THAT RESULT IN HIGHER GREENHOUSE GAS EMISSIONS THAN THE EQUIVALENT CODE-MINIMUM EQUIPMENT; AND TO BETTER ALIGN ITEMS WITH THEIR PURPOSE FOR THE SIZE OF TREES AT PLANTING AND FOR WATER EFFICIENT FIXTURES.

BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF SANTA FE:

Section 1. Chapter VII, SFCC 1987, Exhibit A (being Ord. #2009-9) Santa Fe Residential Green Building Code, Section 1, Item 1.3.3 is amended to read:

† *Section 1- Project Implementation Plan and Lot Development*

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1.3 Design the site - Minimize environmental impacts; protect, restore, and

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enhance the natural features and environmental quality of the site (points for each item are only rewarded upon implementation of these plans).

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1.3.3	Minimize slope disturbance.		
*	A. Complete a hydrological/soil study for steep slopes and use this study to guide the design of all structures on the site. Applies to slopes between 20-30%	1	Hydrological/soil stability study results
*	B. Align road or extended driveway with natural topography to minimize its grade and reduce cut and fill.	1	Grading plan with existing and proposed contours. Note: Driveways cannot exceed 10% slope.
	C. Reduce long-term erosion effects through the design and implementation of terracing, retaining walls, landscaping, and restabilization techniques.	1	Grading and drainage plan and/or site plan
	D. 100% of [~~development (~~]disturbed area[~~)~~] is on 0-10% slopes [~~for building and driveway~~] OR	3	Grading and drainage plan and/or site plan
	E. No more than 5% [~~or less~~] of disturbed area for building and driveway construction is on 0-10% slopes and all other disturbed area is on slopes of 0-10%.	1	Grading and drainage plan and/or site plan

Section 2. Chapter VII, SFCC 1987, Exhibit A (being Ord. #2009-9) Santa Fe Residential Green Building Code, Section 2, Item 2.8.4 is amended to read:

† *Section 2 - Resource Efficiency*

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2.8 – Innovative Options

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2.8.4	Use recycled content materials for 50% of the wall assembly. (not for finger jointed studs, engineered lumber or cellulose insulation or for reclaimed lumber from a building that was deconstructed for which points were taken under items 2.3.1 or 2.3.2)	10	Specifications

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Section 3. Chapter VII, SFCC 1987, Exhibit A (being Ord. #2009-9) Santa Fe

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Residential Green Building Code, Section 3, Item 3.1.3 is amended to read:

† *Section 3 - Energy Efficiency*

3.1 Integrated energy-efficient design

Implement an integrated and comprehensive approach to energy-efficient design of building site, building envelope, and mechanical space conditioning systems.

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3.1.3	[~~Heat~~] Ground source heat pumps used for [~~heading~~] heating, electric resistance space heating, refrigerated air conditioning, or other appliance or equipment that uses more electricity than the equivalent code – minimum appliance or equipment must receive at least [~~one half~~] 20% of its electric load [~~required for heat pump~~] from photovoltaic or other renewable electric source or enough to off-set the additional greenhouse gas emissions using local data, documenting the actual efficiency of the appliance or equipment.	Required	Show on electrical plan

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Section 4. Chapter VII, SFCC 1987, Exhibit A (being Ord. #2009-9) Santa Fe Residential Green Building Code, Section 3, Item 3.2.1 is amended to read:

† *Section 3 - Energy Efficiency*

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3.2 - Measured Performance

3.2.1	Home performs at X% of energy saving as compared to the RESNET model home. (Must use ASTM test for thermal conductance for R-values, not effective R-values that are sometimes provided. For materials for which no test has yet been conducted, R-value must be calculated using the R-values of the component materials.) Silver: 30% or HERS Index of 70 Gold: 50% or HERS Index of 50 Platinum: 75% or HERS Index of 25 Emerald: 100% or HERS Index of 0	[~~thermal~~] Required 30 50 75 100	REM/Rate or other RESNET approved software report: A projected HERS index shall be submitted at the time of building permit application AND a confirmed HERS index

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		shall be submitted to obtain a Certificate of Occupancy and included in the posting required under "Posting of Green Building Facts" on page 2 of this document.

Section 5. Chapter VII, SFCC 1987, Exhibit A (being Ord. #2009-9) Santa Fe Residential Green Building Code, Section 3, Item 3.3.5.1(B) is amended to read:

† *Section 3 - Energy Efficiency*

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3.3 – Additional Points

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B. Use full passive solar design with all items below:	10	Builder spec sheet specifying passive solar design features
• Sun-tempered design as outlined in 3.3.5.1(A) above except additional glazing permitted on south wall		Documentation of design process
• For any room with south-facing glazing > 12%, but not exceeding 20%, of finished floor area, properly sized thermal mass shall be used, which is at least 4" thick masonry material with the surface area 6 times that of south glazing and located in direct sun in winter or line of sight of other thermal mass. Where the ground floor slab is used for solar mass, it shall be insulated below.		
• Trombe walls, or other indirect gain systems are recommended for a portion of the south-facing glazing to avoid over-glare and nighttime heat loss. [~~Trombe walls, if used, shall be single-glazed, non-vented and use a "selective surface" and use a glazing system designed for expansion.~~] All indirect gain systems are		

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recommended to use an overhang as described below in 3.3.5.1(D).		
• Glazing on west walls shall not exceed 2% of floor area or 4% on north and east walls unless use of high thermal efficient windows are used such that the net energy loss is the same as if standard double-pane windows were used based on the HERS analysis.		
• Provision for forced air flow to adjoining areas as needed.		
Note: All applicable items in 3.3.5.1.A except south-facing glazing must also be done in order to receive points for 3.3.5.1.B.		

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Section 6. Chapter VII, SFCC 1987, Exhibit A (being Ord. #2009-9) Santa Fe Residential Green Building Code, Section 3, Item 3.3.6.1 is amended to read:

† *Section 3 - Energy Efficiency*

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3.3 – Additional Points

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3.3.6.1	Conduct onsite third party inspection to verify installation of energy related features such as:	[8] Required	Report from third party inspector (likely to be the HERS professional)
	A. Installation of insulation including no gaps, voids, or compression as per manufacturer's specifications.		
	B. Windows and doors flashed, caulked and sealed properly.		

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Section 7. Chapter VII, SFCC 1987, Exhibit A (being Ord. #2009-9) Santa Fe Residential Green Building Code, Section 5, Item 5.2.1 is amended to read:

† *Section 5 - Indoor Environmental Quality*

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5.2 - Manage potential pollutants generated in the home

5.2.1	Pollutants generated in the building are controlled in accordance with one or more of the following:		Builder spec sheet
	(a) The minimum ventilation rate shall be 50 cfm for bathrooms and 100 cfm for kitchens exhausted to the	Required	

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	outdoors.		
	(b) Bathroom and/or laundry exhaust fan is a minimum of 50 cfm and linked to the light switch or has an automatic timer and/or humidistat.	[~~5~~]6 for first device + 2 per additional	
	(c) Kitchen range, bathroom and laundry exhaust are verified to specification. Ventilation airflow at the point of exhaust is tested to a minimum of 100 cfm for kitchens and 50 cfm for bathrooms and laundry.	8	

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Section 8. Chapter VII, SFCC 1987, Exhibit A (being Ord. #2009-9) Santa Fe Residential Green Building Code, Section 6, Item 6.5.2 is amended to read:

† *Section 6 - Operation, Maintenance, and Sustainable Practices*

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6.5 – Innovative Options

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6.5.2	Builder or owner/builder that applies for the building permit uses [~~Hybrid~~] hybrid or alternative fuel [~~company~~] vehicle(s).	3	Copy of title or registration

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Section 9. This Ordinance shall become effective immediately upon adoption.

APPROVED AS TO FORM:

FRANK D. KATZ, CITY ATTORNEY

Jp/ca/jpmb/2009 bills/Green Building Exhibit A amendments

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