EXHIBIT "A" [1]

ARTICLE IV. OTHER REGULATIONS.

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Section 4.13. Sustainable Development.

(A) *Purpose.*

The purpose of this ordinance is to encourage energy-efficient homebuilding practices beyond what is required by the Florida Building Code, latest adopted edition, in South Miami through the integration of passive design elements. These elements, including the strategic use of natural resources such as sunlight, wind, and thermal mass, are essential for reducing reliance on mechanical heating and cooling, improving indoor comfort, and conserving natural resources. The City of South Miami supports environmentally responsible development that enhances climate resilience and reduces the environmental impact of new homes.

(B) *Applicability*.

This section will apply to all single-family, duplex, and townhouse development.

(C) *Definitions*

For the purposes of this ordinance, the following terms shall be defined as follows:

a. *Bird-Safe Glazing*: Glass treatments that reduce bird collisions through visible patterns, UV-reflective coatings, or frosted glass applications.

b. *Cool Roofs*: Reflective or vegetative roofing systems that minimize heat absorption and improve energy efficiency.

c. *Cross-Ventilation*: The placement of operable windows, breezeways, or courtyards to enhance natural airflow and reduce reliance on mechanical cooling.

d. *Green Roofs*: See Cool Roofs. Provided, however, that for purposes of qualifying for incentives under this section, a green roof shall consist of a vegetated roofing system covering a minimum of twenty-five percent (25%) of the total roof area of the principal structure.

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[1] Coding: ~~Strikethrough words~~ are deletions to the existing words. Underlined words are additions to the existing words. Changes between first and second reading are indicated with ~~double strikethrough~~ and double underline and are highlighted in grey. Modifications made at second reading are shaded in dark grey.

e. Operable Windows: Windows designed to open and close for natural ventilation, reducing the need for mechanical cooling.
f. On-Site Water Retention: Systems designed to capture and store rainwater for landscape irrigation, reducing stormwater runoff.
g. Passive Solar Design: The strategic orientation of structures to maximize natural light and heat, using large south-facing windows, overhangs, and thermal mass materials.
h. Shading and Landscaping: The use of shade trees, vegetation, and architectural shading devices to lower indoor temperatures and enhance stormwater absorption.
i. *Sunroofs:* See Cool Roofs.
j. *Sustainable Building Materials*: High thermal mass materials, such as concrete, brick, or stone, that regulate indoor temperatures efficiently and roof systems designed for high albedo, low thermal mass, and insulation from the high thermal mass of the building walls.
k. Ventilation Towers: Vertical openings or towers that allow warm air to rise and escape from the building, drawing in cooler air from the outside.

(D) *Encouraged Design Elements*.

a. *Passive Solar Design*.
   i. Homes should be oriented to optimize natural ventilation and minimize heat gain.
   ii. South-facing windows should be shaded by overhangs, pergolas, or deep porches to prevent overheating while allowing winter sunlight.
   iii. High ceilings and light-colored exterior finishes should be used to reflect heat.
b. *Natural Ventilation, Cross-Ventilation, and Operable Windows*.
   i. Homes should incorporate operable windows on multiple sides to create natural airflow pathways.
   ii. The use of clerestory windows, louvered shutters, ventilation towers, and ventilation-enhancing design elements is encouraged.
c. *Deep Porches*.
   i. To promote outdoor living and reduce heat gain, deep porches (minimum 6 feet in depth) are encouraged.
d. *Shading and Landscaping*.
   i. Property owners who plant more trees than the minimum required by code will be eligible for up to two donated shade trees from the City of South Miami to be planted on private property of the subject permit.
   ii. The strategic planting of trees and vegetation is encouraged to improve stormwater management and reduce heat absorption.
   iii. Green Walls: Installing green walls or living fences around patios and courtyards can provide additional cooling while creating an aesthetically pleasing environment.
e. *Sustainable Building Materials*.
   i. The use of high thermal mass materials, such as concrete, brick, or stone, is encouraged for passive temperature regulation.

ii. Builders should prioritize recycled or locally sourced materials to reduce environmental impact.

f. *Cool Roofs, Green Roofs, and Sunroofs*.

i. Reflective or light-colored, high albedo roofing materials on roof systems that are thermally insulated from the high thermal mass of the building walls.

ii. Roof systems that have heat insulation on the surface of the roof, and/or attached to the underside of the roof, instead of above interior ceilings, to reduce air conditioning losses in cool air distribution.

iii. Sunroofs should incorporate energy-efficient glazing and north-facing orientation for natural light without solar heating to optimize natural lighting while minimizing heat gain.

g. *Solar Panel Readiness and Incentives*.

i. New homes should allocate roof space for solar panel installation or be pre-wired for future photovoltaic systems.

ii. Homeowners who install solar energy systems will receive a 100% reduction in building permit fees for solar panels.

h. *Bird-Safe Glazing Standards*.

i. To prevent bird collisions, all exterior glazing (including windows, glass doors, and other transparent surfaces) should include bird-safe treatments such as:

1. UV-reflective coatings
2. Etched, frosted, or patterned glass with visible markers.
3. External shading or screens to reduce reflection

i. *On-Site Water Retention for Irrigation*.

i. New developments are encouraged to integrate rainwater harvesting systems, bioswales, or permeable surfaces to retain stormwater for irrigation use.

ii. Green roofs, rain barrels, or underground cisterns can be used to store captured rainwater.

(E) *Sustainable Design Point System*.

a. Projects may voluntarily earn points by incorporating the following passive and sustainable design measures.

b. Points shall be awarded when the minimum measurable thresholds below are met or exceeded:

Passive Solar Design – Up to 6 Points

Measure	**Threshold**	**Points**
Solar orientation	Primary living spaces oriented within 15° of true south	2 pts
Roof overhang depth	Overhangs at least 24 inches on south face	1 pt

Measure	Threshold	Points
High-reflectance exterior finishes	Minimum LRV (light reflectance value) ≥ 60	1 pt

2. Natural Ventilation & Cross-Ventilation – Up to 6 Points

Measure	Threshold	Points
Cross-ventilation	Operable windows on opposing walls in 50% of habitable rooms	2 pts
Operable windows ratio	Minimum 75% of openings	2 pts
Ventilation tower / stack effect	1 functioning ventilation tower or clerestory operable system	2 pts

3. Porches (FAR Incentive) – Up to 4 Points

Measure	Threshold	Points
Deep porch	Porch minimum depth ≥ 6 ft	2 pts
Wrap-around porch	≥ 50% of façade length	2 pts

4. Shading & Landscaping – Up to 7 Points*

Measure	Threshold	Points
Tree preservation	Preserve all protected trees + 1 extra canopy tree per 2,000 sq. ft. lot area	3 pts
Over-planting	Plant 25% more canopy trees than code minimum	2 pts
Tree shading of structure	Plant trees so that 75% of west & south façades are shaded within 5 years *Shading requirements shall be demonstrated by a registered landscape architect or ISA-certified arborist using a submitted planting and growth projection plan.	2 pts

5. Sustainable / Local / Recycled Materials – Up to 6 Points

Material Type	Threshold	Points
Local materials	20% of total building material cost from within 300 miles	2 pts
Recycled content materials	15% of total building material cost	2 pts

6. Cool Roofs / Green Roofs – Up to 6 Points*

Measure	Threshold	Points
Cool roof	SRI ≥ 82 (low-slope) or ≥ 39 (steep-slope)	2 pts
Heat-isolated roof system	Insulation applied above deck rather than ceiling plane	2 pts
Green roof	Minimum 25% vegetated system	2 pts

7. Solar Readiness & Solar Installation – Up to 6 Points

Measure	Threshold	Points
PV-ready conduit + reserved roof zone	Provide 150 sq. ft. clear area	2 pts
Electric panel labeled solar-ready	Dedicated breaker space & combiner	1 pt
Full PV installation	Minimum 3 kW system	3 pts

8. Bird-Safe Glazing – Up to 4 Points

Measure	Threshold	Points
Treat all windows with patterning accepted by American Bird Conservancy (ABC) and the U.S. Fish and Wildlife Service (USFWS) and The Bird-Safe Building Design Guide		2 pts

Measure	Threshold	Points
Pattern spacing ≤ 2 in. horizontal x 4 in. vertical		1 pt
Limit highly reflective glass to < 15% of elevation's exterior glazing		1 pt

9. On-Site Water Retention – Up to 5 Points

Measure	Threshold	Points
Rain cistern	Minimum 500 gallons	2 pts
Permeable paving	≥ 50% of hardscape	2 pts
Bioswale / rain garden *Bio-retention features shall be designed in accordance with County stormwater standards and shall not include standing water.	Minimum 50 sq. ft.	1 pt

c. Projects that achieve point totals shall be eligible for incentives as follows:
   i. Tier 1 – 10 Points
      1. 15% permit fee reduction
      2. Expedited review time
   ii. Tier 2 – 20 Points
      1. 25% permit fee reduction
      2. For one-story homes, increase in home floor area equal to 8% of green roof area
      3. For two-story homes, 50% reduction in second floor step backs)
   iii. Tier 3 – 30 Points
      1. 35% permit fee reduction
      2. For one-story homes, increase in home floor area equal to 12% of green roof area
      3. For two-story homes, 100% reduction in second floor step backs
      4. Priority scheduling with Building Official or Development Services
      5. Expedited inspections (guaranteed next business day)

d. All encouraged design elements should align with United States national green building standards (e.g., LEED, ENERGY STAR, or ICC 700) or European green building standards where applicable (e.g., Passivhaus, BREEAM).

(F) *Solar Panel Incentive*

As an additional incentive exclusive of the point system described in this section, building permit fees shall be waived for installation or repairs to solar panels.