



# City of Coral Gables Planning and Zoning Staff Report

Applicant: City of Coral Gables  
Application: **Zoning Code Text Amendment – Carbon Concrete Reduction**  
Public Hearing: Planning and Zoning Board  
Date & Time: **November 8, 2023; 6:00 – 9:00 p.m.**  
Location: City Commission Chambers, City Hall,  
405 Biltmore Way, Coral Gables, Florida 33134

## 1. APPLICATION REQUEST

The City of Coral Gables is requesting review and consideration of the following:

*An Ordinance of the City Commission of Coral Gables, Florida, providing for text amendments to the City of Coral Gables official Zoning Code pursuant to Zoning Code Article 14, "Process," Section 14-212, "Zoning Code Text and Map Amendments," to create carbon concrete requirements, a review procedure, and an appeal process that reduce greenhouse gas emissions, providing for repealer provision, severability clause, codification, and providing for an effective date.*

The request requires three public hearings, including review and recommendation by the Planning and Zoning Board, and 1st and 2nd Reading before the City Commission.

## 2. BACKGROUND INFORMATION

The City of Coral Gables values and prioritizes sustainability and resiliency as top priorities for the city's planning, policies, and services. The City is seeking opportunities for sustainability to mitigate our impact on the environment. Multiple policies in the Coral Gables Comprehensive Plan aim to increase awareness of green development practices and methods to reduce greenhouse emissions emitted in the city.

As requested by a member of the City Commission, Staff prepared a Zoning Code text amendment that provides provisions to reduce greenhouse gas emissions. The text amendment includes carbon concrete reduction requirements, a review procedure, and an appeal process that applies to all concrete buildings and elements of concrete of all buildings within the MF2, MF3, MF4, and MX zoning districts.

The supply concrete will require in-situ carbon dioxide mineralization, which is when post-industrial carbon dioxide (CO<sub>2</sub>) is injected into the concrete during mixing and chemically converted into a mineral. The concrete specifications will be reviewed for compliance at the building permit issuance and again during final inspections by the Director of Development Services, or their designee. If determined technically infeasible to comply with the carbon reduction requirements, the Director may grant an exemption, such as lack of commercially available materials; cost of compliance is disproportionate to the overall construction costs; or could negatively impact the historic or architectural integrity. If an appeal of the determination is filed, the appeal would be reviewed in accordance with the provisions of Section 14-208 Appeals.

The text amendment was approved at City Commission on October 10th, 2023 for first reading (vote: 5 to 0).

### 3. PROPOSED ZONING CODE TEXT AMENDMENT

The proposed Zoning Code text amendments are provided below in ~~strikethrough~~/underline format.

#### ARTICLE 7. SUSTAINABILITY AND RESILIENCE STANDARDS

Section 7-101. Purpose and Applicability.

- A. The City of Coral Gables wishes to promote and encourage new development utilizing sustainable design and construction best practices. It recognizes the positive environmental impacts of energy efficient building designs, construction, operation and maintenance methods and materials. It also strives to combat the depletion of natural resources such as clean air, water and natural light.
- B. The City of Coral Gables has established a Sustainability Master Plan (SMP) to serve as a strategic roadmap to guide efforts and decision making in order to make the City a more sustainable and resilient community. In addition, the Green Elements of the City's Comprehensive Plan (CP) establish goals for certified green building development. The sustainable design and construction standards contained in this section are derived from the SMP and CP conservation measures and management policies and shall also be in full compliance with the Florida Building Code currently in effect.

Section 7-102. Green Building Requirements

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Section 7-103. Solar Equipment.

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Section 7-104. Carbon Concrete Requirements.

- A. Purpose and Applicability. The purpose of these regulations is to provide practical standards and requirements for the composition of concrete that reduces greenhouse gas emissions associated with the concrete composition while maintaining necessary strength and durability. The requirements of this section shall apply to the construction of all concrete buildings and elements of concrete of all buildings within the MF2, MF3, MF4, and MX zoning districts.
- B. Requirements. Supply concrete shall undergo in-situ carbon dioxide mineralization, such that post-industrial carbon dioxide (CO<sub>2</sub>) is injected into the concrete during mixing and chemically converted into a mineral. The concrete mix may be adjusted to utilize the strength enhancement property of CO<sub>2</sub> to optimize cementitious content. All CO<sub>2</sub>-mineralized and optimized concrete mixes shall meet the concrete performance requirements provided in the submitted permit specifications.
- C. Compliance.
  - 1. Building Permit Issuance. Prior to the issuance of a building permit involving concrete construction, verification from the concrete provider of in-situ mineralization of Carbon

Dioxide shall be submitted and reviewed for compliance by the Director of Development Services, or their designee.

2. Final inspections. Prior to completion of the final inspection involving concrete construction, batch certificates or Environmental Product Declarations (EPDs) shall be provided by the concrete provider and reviewed for compliance by the Director of Development Services, or their designee.

D. Exemptions.

1. Technically infeasibility exemption. An applicant may request an exemption and demonstrate that compliance with these requirements is not technically feasible, such as the lack of commercially available materials; cost of compliance is disproportionate to the overall construction costs; or compliance would negatively impact the historic or architectural integrity of the buildings.
2. Granting of exemption. The Director of Development Services, or their designee, shall review and determine if compliance is technically infeasible. The Director of Development Services, or their designee, shall determine the maximum feasible threshold of compliance reasonably achievable for construction. If determined that compliance is technically feasible, the construction shall comply with these regulations.
3. Appeal. The applicant or aggrieved party may file an appeal of the determination in accordance with the provisions of Section 14-208.

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**ARTICLE 16. DEFINITIONS.**

Concrete means the construction material that is a combination of mineral aggregates bound together that hardens.

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**4. REVIEW TIMELINE / PUBLIC NOTICE**

**City Review Timeline**

The submitted applications have undergone the following City reviews:

REVIEW COMMITTEES AND BOARDS	DATE
City Commission 1 <sup>st</sup> Reading	10.10.23
Planning and Zoning Board	11.08.23
City Commission 2 <sup>nd</sup> Reading	TBD

The following has been completed to solicit input and provide notice of the Application:

PUBLIC NOTICE	DATE
Legal advertisement	10.27.23
Posted agenda and Staff report on City web page/City Hall	11.03.23

**5. FINDINGS OF FACT**

In accordance with Section 14-212.5 of the Zoning Code, the Planning and Zoning Board shall not recommend adoption of, and the City Commission shall not adopt, text amendments to these land Zoning Code unless the text amendment:

Standard	Staff Evaluation
<p>a. Promotes public health, safety, and welfare.</p>	<p>In efforts to reduce greenhouse gas emissions in the city, the intent of the proposed amendment is to create carbon concrete requirements, a review procedure, and an appeal process that will apply to MF2, MF3, MF4, and MX zoning districts. This amendment is beneficial for Coral Gables and its residents as the proposed carbon concrete requirements are better suited for the environment and upholds several goals, objectives, and policies dedicated to green development practices outlined in the Comprehensive Plan.</p> <p>Although concrete is composed of cement, air, water, and gravel, the industry is a leading contributor of carbon dioxide, a greenhouse gas. The topsoil, which is the most fertile layer of the earth, is often damaged when concrete is used to fabricate hard surfaces. Concrete also contributes to surface runoff that can lead to soil erosion, water pollution, and flooding. As an alternative, the carbon sequestration process, which captures and stores carbon dioxide into concrete, reduces our carbon footprint while maintaining the strength and durability of the concrete composition. In return, this process does not cause the atmosphere to warm and contributes to our health, safety, and welfare in the future. Through this text amendment, the City is prioritizing sustainable and resiliency-based building practices for larger properties to mitigate effects on the environment.</p>
<p>b. Does not permit uses the Comprehensive Plan prohibits in the area affected by the text amendment.</p>	<p>The proposed amendment does not affect any uses permitted in the Comprehensive Plan.</p>

c. Does not allow densities or intensities in excess of the densities and intensities which are permitted by the future land use categories of the affected property.	The proposed text amendment does not allow densities or intensities in excess of what are permitted by the future land uses.
d. Will not cause a decline in the level of service for public infrastructure which is the subject of a concurrency requirement to a level of service which is less than the minimum requirements of the Comprehensive Plan.	The proposed text amendment will not affect the level of service for public infrastructure.
e. Does not directly conflict with any objective or policy of the Comprehensive Plan.	The proposed amendment does not directly conflict with any objective or policy of the Comprehensive Plan. The proposed amendments meet Goal GRN-1., Policy GRN-1.1.2., Policy FLU-1.11.1., Objective FLU-1.12., Policy FLU-1.12.1., and Policy DES-1.1.2.

**Staff comments:** Staff finds that all five of these criteria are **satisfied**.

**Consistency Evaluation of the Comprehensive Plan (CP) Goals, Objectives and Policies**

The Planning and Zoning Division has reviewed the CP and finds the following CP Goals, Objectives and Policies are applicable. Consistent CP Goals & Objectives and Policies are as follows:

Ref. No.	CP Goal, Objective and Policy	Basis for Consistency
1.	<b>Objective FLU-1.11.1</b> Maintain and enforce effective development and maintenance regulations through site plan review, code enforcement, and design review boards and committees.	Complies
2.	<b>Objective FLU-1.12.</b> The City shall enforce the recently adopted Zoning Code which maintains the high aesthetic community design standards.	Complies
3.	<b>Policy FLU-1.12.1.</b> Maintain and enforce effective development and maintenance regulations.	
4.	<b>Policy DES-1.1.2.</b> Provide for rigorous design guidelines, standards, and review processes via the City’s Zoning Code that ensure high quality design of buildings and spaces.	Complies
5.	<b>Goal GRN-1.</b> The City of Coral Gables will take measurable steps towards becoming a “sustainable” community by providing a healthy setting for residents, workers, property owners and visitors and increase awareness of green development practices and ways to have a significant impact on the City’s environment including the following: protecting the quality of air, water, land and other natural resources; conserving native vegetation, fish, wildlife and worldwide ecosystems; minimize the carbon footprint; and reduce greenhouse emissions.	Complies

Ref. No.	CP Goal, Objective and Policy	Basis for Consistency
6.	<b>Policy GRN-1.1.2.</b> The City will adopt a “Go Green Initiative” to implement strategies to reduce greenhouse gas emissions within the City’s borders.	Complies

The proposed text amendment to Article 7 of the Zoning Code provides carbon concrete requirements, a review procedure, and an appeal process that applies to all concrete buildings and elements of concrete of all buildings within the MF2, MF3, MF4, and MX zoning districts. Additionally, the proposed text amendment defines concrete in Article 16 of the Zoning Code to provide a definition and clarity.

Per Objective FLU-1.11.1. and DES-1.1.2., the City aims to “Maintain and enforce effective development and maintenance regulations through site plan review, code enforcement, and design review boards and committees” and “Provide for rigorous design guidelines, standards, and review processes via the City’s Zoning Code that ensure high quality design of buildings and spaces.” The City’s effort to provide standards and requirements for concrete composition that reduce greenhouse gas emissions maintains and enforces sustainable, resilient, and effective development and maintenance regulations. The sequestration of concrete minimizes the City’s carbon footprint while also maintaining the strength and durability of concrete for future developments. In addition, the proposed text amendment provides the compliance standards, which require carbon concrete to meet concrete performance as specified in the permit.

The text amendment also meets Goal GRN-1. and Policy GRN-1.1.2. The text amendment was intended to showcase the City’s effort towards green development practices that minimize greenhouse gas emissions and uphold the Comprehensive Plan. Carbon concrete sequestration is becoming a popular green development initiative that cities in the United States and the world are implementing to be sustainable and resilient. The City seeks to partake in these practices to reduce our impact on the environment.

**6. STAFF RECOMMENDATION**

The Planning and Zoning Division recommends approval.

**7. ATTACHMENTS**

- A. Legal advertisement.

Please visit the City’s webpage at [www.coralgables.com](http://www.coralgables.com) to view all Application plans and materials, notices, applicable public comments, minutes, etc. The complete Application and all background information also is on file and available for examination during business hours at the Planning and Zoning Division, 427 Biltmore Way, Suite 201, Coral Gables, Florida 33134.

Respectfully submitted,



Jennifer Garcia, AICP, CNU-A  
 City Planner  
 City of Coral Gables, Florida

MIAMI-DADE

STATE OF FLORIDA  
COUNTY OF MIAMI-DADE:

Before the undersigned authority personally appeared GUILLERMO GARCIA, who on oath says that he or she is the DIRECTOR OF OPERATIONS, Legal Notices of the Miami Daily Business Review f/k/a Miami Review, of Miami-Dade County, Florida; that the attached copy of advertisement, being a Legal Advertisement of Notice in the matter of

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in the XXXX Court, was published in a newspaper by print in the issues of Miami Daily Business Review f/k/a Miami Review on

10/27/2023

Affiant further says that the newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.

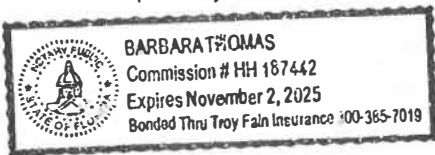
*Guillermo Garcia*

Sworn to and subscribed before me this 27 day of OCTOBER, A.D. 2023

*Barbara Thomas*

(SEAL)

GUILLERMO GARCIA personally known to me



CITY OF CORAL GABLES, FLORIDA  
NOTICE OF PUBLIC HEARING  
HYBRID MEETING ON ZOOM PLATFORM

City Public Hearing Local Planning Agency / Planning and Zoning Board  
Dates/Times Wednesday, November 8, 2023, 6:00 p.m.

Location City Commission Chamber, City Hall  
405 Biltmore Way, Coral Gables, FL 33134

PUBLIC NOTICE is hereby given that the City of Coral Gables, Florida, Local Planning Agency (LPA)/ Planning and Zoning Board (PZB) will conduct Public Hearing on the following:

1. An Ordinance of the City Commission providing for text amendments to the City of Coral Gables Official Zoning Code pursuant to Zoning Code Article 14, "Process," Section 14-212, "Zoning Code Text and Map Amendments," to create carbon concrete requirements, a review procedure, and an appeal process that reduce greenhouse gas emissions, providing for repealer provision, severability clause, codification, and providing for an effective date.
2. A Resolution of the City Commission of Coral Gables, Florida approving Conditional Use Review of a Site Plan pursuant to Zoning Code Article 14, "Process" Section 14-203, "Conditional Uses," for a proposed Publix grocery store and liquor store on the property legally described as Lots 1 through 48, Block 8, Coral Gables Crafts Section (2551 Le Jeune Rd), Coral Gables, Florida; including required conditions; providing for a repealer provision, severability clause, and an effective date.
3. An Ordinance of the City Commission of Coral Gables, Florida approving a Planned Area Development (PAD) pursuant to Zoning Code Article 14, "Process," Section 14-206, "General Procedures for Planned Area Development" for a proposed Publix grocery store and liquor store on the property legally described as Lots 1 through 48, Block 8, Coral Gables Crafts Section (2551 Le Jeune Rd), Coral Gables, Florida; including required conditions; providing for a repealer provision, severability clause, and an effective date.
4. An Ordinance of the City Commission of Coral Gables, Florida, amending St. Philip's School site plan approved under Ordinance No. 3576 to replace an existing building with a new pre-K building located at 1109 Andalusia Avenue, Coral Gables, Florida; all other conditions of approval contained in Ordinance No. 3576 shall remain in effect; and providing an effective date.

# CITY OF CORAL GABLES.

5. An Ordinance of the City Commission of Coral Gables, Florida, providing for text amendments to the City of Coral Gables Official Zoning Code pursuant to Zoning Code Article 14, "Process," Section 14-212, "Zoning Code Text and Map Amendments," to create an open space incentive program within the Central Business District (CBD) to incentivize additional landscaped open space by allowing a maximum building height of one hundred and twenty-four feet, providing for repealer provision, severability clause, codification, and providing for an effective date.

Presentation by Staff of Live Local Act.

6. An Ordinance of the City Commission of Coral Gables, Florida providing for text amendments to the City of Coral Gables Official Zoning Code (Zoning Code), amending Article 10, "Parking and Access," Section 10-112 "Miscellaneous Parking Standards," creating provisions for considering reduction of parking requirements for affordable housing located near a major transit stop as required by the Live Local Act, Ch. 2023-17, Laws of Florida; providing for repealer provision, severability clause, codification, and providing for an effective date.

The Planning and Zoning Board will be holding its board meeting on Wednesday, November 8, 2023, commencing at 6:00 p.m. Pursuant to Resolution No. 2021-118, the City of Coral Gables has returned to traditional in-person meetings. However, the City Commission has established the ability for the public to virtually provide sworn testimony or public comments (non-sworn and without evidentiary value). Any individual who wishes to provide sworn testimony virtually must have their video on and must be sworn in.

Members of the public may join the meeting via Zoom at (<https://zoom.us/j/83788709513>). In addition, a dedicated phone line will be available so that any individual who does not wish (or is unable) to use Zoom may listen to and participate in the meeting by dialing: (305) 461-6769 Meeting ID: 837 8870 9513. The public may comment on an item using the City's E-Comment function which may be found on the City's website at: (<https://coralgables.granicusideas.com/meetings>) once the meeting's agenda is published, or by sending an email to [planning@coralgables.com](mailto:planning@coralgables.com) prior to the meeting.

The meeting will also be broadcasted live for members of the public to view on the City's website ([www.coralgables.com/cctv](http://www.coralgables.com/cctv)) as well as Channel 77 on Comcast.

Sincerely,  
City of Coral Gables, Florida  
10/27

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