

R5 X SHADE AND PALM TREE REQUIREMENTS - CHAPTER 4 LDR

AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING CHAPTER 4 OF THE MIAMI BEACH RESILIENCY CODE, ENTITLED "LANDSCAPE REQUIREMENTS," BY AMENDING ARTICLE II, ENTITLED "REQUIREMENTS," BY AMENDING SECTION 4.2.3, ENTITLED "MINIMUM STANDARDS" BY ALLOWING PALMS TO COUNT TOWARD MINIMUM STREET TREE REQUIREMENTS; AND, PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.

Applicable Area:

# MIAMI BEACH

## COMMISSION MEMORANDUM

TO: Honorable Mayor and Members of the City Commission

FROM: Eric Carpenter, City Manager

DATE: November 20, 2024 First Reading

TITLE: SHADE AND PALM TREE REQUIREMENTS - CHAPTER 4 LDR  
AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING CHAPTER 4 OF THE MIAMI BEACH RESILIENCY CODE, ENTITLED "LANDSCAPE REQUIREMENTS," BY AMENDING ARTICLE II, ENTITLED "REQUIREMENTS," BY AMENDING SECTION 4.2.3, ENTITLED "MINIMUM STANDARDS" BY ALLOWING PALMS TO COUNT TOWARD MINIMUM STREET TREE REQUIREMENTS; AND, PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.

### **RECOMMENDATION**

The Administration recommends that the Mayor and City Commission ("City Commission") not approve the subject ordinance at First Reading.

### **BACKGROUND/HISTORY**

On February 1, 2023, at the request of then Commissioner Steven Meiner, the City Commission referred a proposal (C4 C) regarding the ratio of palms to canopy trees to the Land Use and Sustainability Committee (LUSC) and the Planning Board. At the March 1, 2023, LUSC meeting, the item was deferred to April 19, 2023, with no discussion. On April 19, 2023, the item was deferred to the June 20, 2023, LUSC meeting, at the request of the sponsor.

On June 20, 2023, the item was deferred to the September 27, 2023, LUSC meeting, at the request of the sponsor. On September 27, 2023, the item was deferred to the January 2024 LUSC meeting, with no discussion. While the LUSC was reconstituted on January 31, 2024, no meeting was held in January 2024. On February 26, 2024, the item was deferred to the June 10, 2024, LUSC meeting, with no discussion.

On June 10, 2024, the LUSC moved the proposed ordinance to the Planning Board with a recommendation to modify the palm to canopy tree ratio to two (2) palms for every one (1) required canopy tree.

### **ANALYSIS**

The proposed text amendment to Chapter 4 of the Land Development Regulations of the City Code (LDRs) would allow palms to count as required street trees on the basis of two (2) palms per required canopy tree, provided such palms meet the following minimum size and spacing requirements:

1. A minimum of ten (10) inches in diameter at breast height (DBH).
2. A minimum of 15 feet of clear or grey wood at time of planting.

3. A maximum spacing of 20 feet on center.

This proposed amendment is intended to conform the landscaping requirements in the LDRs to a separate amendment proposed for Chapter 46, which is pending before the City Commission, and would also allow palms to count toward the minimum number of required street trees.

Attached is a fact sheet pertaining to the Miami Beach Tree Preservation Code and Urban Forestry Master Plan. In addition to the information provided in this fact sheet, the following is noted regarding the proposed ordinance amendment, as well as the importance of maintaining and promoting healthy tree canopy citywide:

- If the City Commission decides to amend the current requirements of Chapter 46 and 126 and allow palms to count as the required number of street trees, the City will still need to meet the minimum requirements of the Miami-Dade County Landscape Code. While Miami-Dade County allows palms as street trees, municipalities within the County have different requirements. For example, Pinecrest does not allow palms at all, and other cities restrict the type or number of palms that are allowed.
- Palms as street trees offer less shade for pedestrians and less environmental benefits in comparison to canopy trees that are native and Florida Friendly canopy trees.
- The standard recommendation for tree canopy coverage in cities is 30%. Unfortunately, the City of Miami Beach was only at 17% with the last full inventory and the City's goal is 22% canopy coverage by 2040 based on planting in 50% of available areas.
- Palms require more maintenance and fertilizer than canopy trees, as well as more frequent upkeep. Excessive or incorrect fertilizer use has been found to lead to algae blooms in Biscayne Bay, our aquatic preserve that is in peril, as fertilizers are carried as run-off into the bay when it rains. Additionally, canopy trees are usually pruned on a 3-to-4-year cycle, while palms are trimmed 3 to 4 times per year.

It is also important to note that nothing in Chapter 4 of the LDRs precludes specifying palms in landscape designs. In fact, palms are included in most development projects, in addition to the minimum number of street and lot trees. Chapter 4 was substantially updated in 2016 with the express intention of increasing our urban tree canopy citywide. The current regulations further the resiliency and sustainability goals of the City by creating shady and walkable neighborhoods and contributing to stormwater management.

Palms have historically played an important role in landscape design in the City and are emblematic of the City's image and brand. While understanding of the intent of the proposal to recognize and foster the use of more palms in the city, the need for increased canopy in the City is significant. Based upon the foregoing, the Administration does not recommend in favor of the revisions to Chapter 4 as proposed herein.

#### **PLANNING BOARD REVIEW**

On July 24, 2024, the Planning Board held a public hearing and transmitted the proposed ordinance to the City Commission with an unfavorable recommendation (5-1).

#### **APPLICATION FEE WAIVER**

The subject amendment is proposed on a comprehensive, citywide basis, and not on behalf of a private applicant or third party. Pursuant to section 2.4.1.c of the Land Development Regulations of the City Code, amendments to the City Code require the payment of the applicable fees in section 2.2.3.5, 2.2.3.6, and appendix A to the City Code. These fees may be waived by a five-sevenths (5/7ths) vote of the City Commission, based upon one or more of the following circumstances:

1. The City Commission determines that the proposed amendment is necessary due to a change in federal or state law, or to implement best practices in urban planning, or based on circumstances unique to the proposed amendment.
2. Upon the written recommendation of the City Manager acknowledging a documented financial hardship of a property owner(s) or developer(s).
3. If requested, in writing, by a non-profit organization, neighborhood association, or homeowner's association for property owned by any such organization or association, so long as the request demonstrates that a public purpose is achieved by enacting the applicable amendment.

The Administration recommends that the City Commission waive the applicable fees based on circumstances unique to the proposed amendment.

### **FISCAL IMPACT STATEMENT**

No Fiscal Impact Expected

**Does this Ordinance require a Business Impact Estimate?** Yes  
(FOR ORDINANCES ONLY)

If applicable, the Business Impact Estimate (BIE) was published on: 8/14/2024.  
See BIE at: <https://www.miamibeachfl.gov/city-hall/city-clerk/meeting-notices/>

### **FINANCIAL INFORMATION**

N/A

### **CONCLUSION**

The Administration recommends the following:

1. The Administration recommends that the City Commission not approve the subject ordinance at first reading.
2. Should the City Commission approve the subject ordinance at First Reading, Second Reading public hearing shall be scheduled for January, 2025.
3. In accordance with section 2.4.1.c.1 of the Land Development Regulations of the City Code, the City Commission waive the applicable fees based on circumstances unique to the proposed amendment.

### **Applicable Area**

Citywide

**Is this a "Residents Right to Know" item, pursuant to City Code Section 2-17?**

Yes

**Is this item related to a G.O. Bond Project?**

No

**Was this Agenda Item initially requested by a lobbyist which, as defined in Code Sec. 2-481, includes a principal engaged in lobbying?** No

If so, specify the name of lobbyist(s) and principal(s):

**Department**

Planning

**Sponsor(s)**

Mayor Steven Meiner

**Co-sponsor(s)**

**Condensed Title**

1st Rdg, Shade and Palm Tree Requirements – Ch. 4 LDR. (Meiner) PL 5/7

## Shade and Palm Tree Requirements – Chapter 4 LDR

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING CHAPTER 4 OF THE MIAMI BEACH RESILIENCY CODE, ENTITLED "LANDSCAPE REQUIREMENTS," BY AMENDING ARTICLE II, ENTITLED "REQUIREMENTS," BY AMENDING SECTION 4.2.3, ENTITLED "MINIMUM STANDARDS," BY ALLOWING PALMS TO COUNT TOWARD MINIMUM STREET TREE REQUIREMENTS; AND, PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.

**WHEREAS**, a well-maintained and aesthetically pleasing landscape enhances property values and contributes to the overall attractiveness and livability of neighborhoods and communities; and

**WHEREAS**, palm trees are iconic and culturally significant to our region, contributing to its unique identity and aesthetic appeal; and

**WHEREAS**, well-placed palm trees can enhance property values and contribute to the overall attractiveness and character of neighborhoods and communities; and

**WHEREAS**, the City desires to allow palm trees to count towards the minimum street tree requirements; and

**WHEREAS**, the amendments set forth below are necessary to accomplish all of the above objectives.

**NOW THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA:**

**SECTION 1.** That Chapter 4 the Miami Beach Resiliency Code, entitled "Landscape Requirements," is hereby amended as follows:

### CHAPTER 4 LANDSCAPE REQUIREMENTS

\* \* \*

### ARTICLE II. REQUIREMENTS

\* \* \*

#### **4.2.3 Minimum standards.**

The following standards shall be considered minimum requirements unless otherwise indicated in the land development regulations:

a. *Trees.*

*Tree size:* All trees except street trees, shall be a minimum of 12 feet high with a minimum crown spread of six feet and have a minimum caliper of two inches at time of planting.

\* \* \*

3. *Palms as street trees*: Palms as street trees are not permitted, except as specified herein and in section 4.2.5, entitled "Landscape Neighborhood Overlays." Palms shall be planted per the following requirements. Single trunk palm species with a minimum of ten inches diameter at breast height (DBH) and a minimum of 15 feet of clear or grey wood at time of planting may be planted in addition to the required number of street trees. The maximum spacing of palms as street trees shall be 20 feet on center. ~~Palms shall not count towards the required number of street trees.~~ Palms that meet the requirements of this paragraph may count as a required street tree on the basis of two (2) palms per required street tree. The city may require an increase in the maximum spacing due to site-specific constraints, such as, but not limited to, visibility triangles, signage, utilities view corridors, or the use of large canopy or diameter trees.

## **SECTION 2. REPEALER.**

All ordinances or parts of ordinances in conflict herewith be and the same are hereby repealed.

## **SECTION 3. SEVERABILITY.**

If any section, subsection, clause or provision of this Ordinance is held invalid, the remainder shall not be affected by such invalidity.

## **SECTION 4. CODIFICATION.**

It is the intention of the Mayor and City Commission of the City of Miami Beach, and it is hereby ordained that the provisions of this Ordinance shall become and be made part of the Miami Beach Resiliency Code. The sections of this Ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section," "article," or other appropriate word.

## **SECTION 5. EFFECTIVE DATE.**

This Ordinance shall take effect on the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

**PASSED** and **ADOPTED** this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Steven Meiner, Mayor

## **ATTEST:**

\_\_\_\_\_  
Rafael E. Granado, City Clerk

First Reading: September 11, 2024

Second Reading: October 30, 2024

Verified by: \_\_\_\_\_  
Thomas R. Mooney, AICP  
Planning Director

APPROVED AS TO  
FORM AND LANGUAGE  
& FOR EXECUTION

  
\_\_\_\_\_  
City Attorney NK

8/21/2024  
\_\_\_\_\_  
Date

## INFORMATIONAL FACT SHEET



### Miami Beach Tree Preservation Code and Urban Forestry Master Plan

#### **What is the purpose of the City's Tree Preservation Ordinance? Why do governments have rules about trees?**

- The City has a healthy Tree Preservation Ordinance that protects our tree canopy now and for future generations. The ordinance protects and preserves canopy trees and palms of mature size which may be impacted by construction, both on public and private property.
- When trees are removed, there's a loss of canopy, so trees must be replanted to grow the canopy over time. Cities also lose trees from storms, disease, end of useful life, etc. The City ordinance requires "mitigation" in the form of replacement trees lost from development and this is how cities can make sure the canopy can be protected and grow over time.
- Regulations are important for long term community health, safety, sustainability, and economic success.
  - **Fun Facts:**
    - It takes about ten years for most of the species we plant to become established and provide decent shade.
    - Due to our Tree Preservation Permitting Program, we have seen a net increase of 1,750 palms and 5,700 canopy trees planted based on an analysis conducted from October 2018 to 2021.
    - In a recent Miami-Dade County tree inventory, Miami Beach was identified as one of the cities with canopy growth from 2016 to 2020. (Miami-Dade County and American Forests)
    - Extreme heat is an increasingly important resilience priority. Our summers are getting hotter and longer due to climate change and urban development. On average, the Miami area has 51 more days per year with temperatures over 90 degrees Fahrenheit than it did 50 years ago and we're expected to have the highest increase of dangerously high heat days with a heat index over 100 degrees Fahrenheit of any county in the United States by mid-century.

#### **Why is it important to have trees on both public and private property?**

- Making the tree canopy solely the responsibility of the government is difficult due to the lack of space—the City needs a partnership with residents since 75% of property is privately owned.
  - **Fun Facts:**
    - 79% of current canopy is on private land, and 14% is on government property.
    - The right of way (ROW) makes up a small percentage of the property on Miami Beach.
    - In addition, City parks need to retain area for recreational use, and have limited space available for new plantings.
    - Some areas, such as North Beach, are both heavily private property and densely urbanized with impervious surfaces. Canopy in these areas requires special placement, help from private property owners, and innovative techniques to allow the tree roots to grow. New development in

## INFORMATIONAL FACT SHEET



### Miami Beach Tree Preservation Code and Urban Forestry Master Plan

the North Beach Town Center is required to plant larger canopy with appropriate techniques to allow the trees to grow.

#### **What are the benefits of trees? Why is tree canopy important?**

- Canopy trees absorb heat, provide shade, manage and filter stormwater, sequester CO<sub>2</sub> and help conserve electricity. Trees provide biodiversity and habitat for birds, bees, butterflies, and other wildlife.
  - **Fun Facts:**
    - It has been found that when sitting under a tree, the temperature can be up to 22 degrees cooler and feel up to 35 degrees cooler.
    - Trees are important flood mitigation structures with approximately 20% of annual rainfall retained in the crown. They also increase the infiltration capacity of soils, reducing flooding and erosion of soils.
    - Trees reduce the urban heat island effect, absorb air pollutants such as ozone, CO<sub>2</sub> and other climate gasses.
    - Urban trees are good for physical AND mental health – people are encouraged to walk in urban forests which boosts serotonin levels and heart health.
    - Trees also provide financial benefits. Shade helps people save on utility bills and trees increase property values by about 8%.

#### **What is the role of the Urban Forestry Division?**

- The Urban Forestry Division oversees both operational services and strategic projects. The Division has a highly certified Urban Forester that provides regulatory supervision through responding to tree abuse complaints, providing guidance, and issuing permits.
- Strategic projects to grow the urban forest include conducting the citywide Geographic Information System Tree Inventory, managing the GO Bond tree reforestation initiative, and advising on the right tree in the right place - the optimal planting species to result in mature trees for corridors and roadways for the City of Miami Beach.

#### **What is the Urban Forestry Master Plan (UFMP)?**

- The UMFP is a guiding document to help evolve our urban canopy to be more tolerant to climate change, but does not have any regulatory power over the Tree Preservation Ordinance. As a plan, it established a goal to increase the tree canopy from 17% to 22%.
  - Our UFMP has become the benchmark for other plans being developed in South Florida and other parts of the world. The City presented at the first ever international conference of Tree Cities of the World because we created a plan that looks at the approach of sustainably managing an urban forest under the stresses of climate change, and how to create innovative adaptive efforts that will allow for this. As the only US city selected to present at the conference, members from around the world are looking at our plan to help guide them when dealing with similar climate change conditions.
  - The adoption of the UFMP did not result in any regulatory changes regarding how we manage existing trees and palms.

## INFORMATIONAL FACT SHEET



### Miami Beach Tree Preservation Code and Urban Forestry Master Plan

#### **Why is a distinction made between canopy trees and palm trees, regarding benefits and disadvantages?**

- The Urban Forestry Master Plan recommends a transition of our palm canopy from 57% to 25% by 2050. By planting more canopy trees, we reduce the overall percentage of palms, without needing the removal of existing palms.
- Keeping the existing palm canopy percentage will leave the City's landscape vulnerable to future climatic stressors such as extreme heat, flooding and saltwater intrusion, as well as impacts from pest or disease due to the lack of diversity. An overpopulation of palms also reduces the number of planting spots for more beneficial canopy trees.
- Palms tend to be over-pruned which results in "pencil" of the trunk. As a result, palms tend to be weaker and this practice increases drag on the fronds during high wind events, increasing the chance of failure.
- South Florida soils are a mixture of sand, marl (weathered limestone), and Miami Limestone, which is alkaline with a pH hovering at about 8. The limestone does not hold water or nutrients well, and the high pH makes it difficult for plants to get micro-elements they need. These soils are also not conducive for healthy palm growth, and palms require constant fertilizer to stay green in South Florida.
  - **Fun Facts:**
    - Excessive or incorrect fertilizer use has been found to lead to algal blooms in Biscayne Bay, our aquatic preserve that is in peril. When it rains, fertilizers are carried as run-off into the Bay. Improper fertilizer use not only impacts City waterways but can also lead to long-term degradation of the soil.
    - Palms require more frequent upkeep. Canopy trees are usually pruned on a 3-to-4-year cycle, while palms are trimmed 3 to 4 times per year. Coconut palms need their coconuts removed, royal palms need their boots strapped, date palms need their dates either removed or cleaned up once fallen. If not frequently maintained, palms can be dangerous as street trees since their fronds reach a large size and fall with risk of injury to pedestrians, which is why some municipalities do not allow them at all. Treating palm diseases is also very costly, especially preventative treatment for the multitude of diseases affecting palms.

# INFORMATIONAL FACT SHEET

## Miami Beach Tree Preservation Code and Urban Forestry Master Plan

| Benefits*  | Shade Tree                          | Palm                              |
|--|-------------------------------------|-----------------------------------|
|  | Live Oak, <i>Quercus virginiana</i> | Sabal Palm, <i>Sabal palmetto</i> |
| Diameter (DBH)   | 16"                                 | 16"                               |
| Carbon Dioxide (CO2) Sequestered (Absorbed)  | 510 pounds/year                     | 2.71 pounds/year                  |
| Rainfall Intercepted   | 725 gallons/year                    | 81 gallons/year                   |
| Ozone removed from air   | 20 ounces/year                      | 1.70 ounces/year                  |
| Carbon dioxide stored  | 3,214 pounds over lifetime          | 26 pounds over lifetime           |
| Energy Savings (A/C)   | 60 kWh                              | 26 kWh                            |
| Energy Savings Value   | \$10.00                             | \$4.60                            |
| Annual Value of Benefits   | \$31.00                             | \$6.48                            |
| *Based on an analysis utilizing the USDA Forest Service's i-Tree MyTree benefits tool ( <a href="http://www.itreetools.org">www.itreetools.org</a> ) - v. 2.4.16 |                                     |                                   |

| Scenario: 3- Year Pruning Cycle     | Year 1           |             | Year 2           |                | Year 3           |              |
|-------------------------------------|------------------|-------------|------------------|----------------|------------------|--------------|
|                                     | Number Tree/Palm | Cost        | Number Tree/Palm | Cost           | Number Tree/Palm | Cost         |
| Canopy Tree Pruning (3 Year Cycle)  | 3,950            | \$ 629,775  | 3891             | \$ 633,840.50  | 4,332            | \$ 676,919   |
| Palm Pruning (Depending on species) | 16,732           | \$2,227,680 | 16732            | \$2,227,680.00 | 16,732           | \$ 2,227,680 |
| Tree & Stump Removal                | 119              | \$ 46,900   | 126              | \$ 50,145.00   | 131              | \$ 49,729    |
| Palm & Stump Removal                | 157              | \$ 39,981   | 156              | \$ 40,994.00   | 154              | \$ 40,591    |
| TOTAL                               | 20,958           | \$2,944,336 | 20905            | \$2,952,659.50 | 21,349           | \$ 2,994,919 |

| Scenario: 5-Year Pruning Cycle                        | Year 1           |             | Year 2           |                | Year 3           |              | Year 4           |              | Year 5           |              |
|---|------------------|-------------|------------------|----------------|------------------|--------------|------------------|--------------|------------------|--------------|
|   | Number Tree/Palm | Cost        | Number Tree/Palm | Cost           | Number Tree/Palm | Cost         | Number Tree/Palm | Cost         | Number Tree/Palm | Cost         |
| Canopy Tree Pruning (3 Year Cycle)                    | 2,370            | \$ 377,865  | 2299             | \$ 373,859.00  | 2,759            | \$ 414,182   | 3,225            | \$ 458,376   | 3,691            | \$ 505,428   |
| Palm Pruning (2x or 4x per year depending on species) | 16,732           | \$2,227,680 | 16732            | \$2,227,680.00 | 16,732           | \$ 2,227,680 | 16,732           | \$ 2,227,680 | 16,732           | \$ 2,227,680 |
| Tree & Stump Removal                                  | 119              | \$ 46,900   | 126              | \$ 50,145.00   | 131              | \$ 49,729    | 137              | \$ 49,318    | 143              | \$ 48,900    |
| Palm & Stump Removal                                  | 157              | \$ 39,981   | 156              | \$ 40,994.00   | 154              | \$ 40,591    | 153              | \$ 40,217    | 154              | \$ 40,094    |
| TOTAL   | 19,378           | \$2,692,426 | 19313            | \$2,692,678.00 | 19,776           | \$ 2,732,182 | 20,247           | \$ 2,775,591 | 20,720           | \$ 2,822,102 |