

COMMITTEE MEMORANDUM

TO: Land Use and Sustainability Committee Members

FROM: Eric Carpenter, City Manager

DATE: October 10, 2024

TITLE: REQUEST FOR THE ADMINISTRATION TO EXPLORE AND PROVIDE OPTIONS FOR ESTABLISHING NEW RESILIENCY BEST-PRACTICE PARAMETERS TO ENSURE THAT POROUS CONCRETE/PAVERS AND BIOSWALES ARE USED IN NEW DEVELOPMENT TO HELP MITIGATE "NEW NORMAL" FLOODING EVENTS.

RECOMMENDATION

The Administration recommends that the Land Use and Sustainability Committee (LUSC) endorse the proposed amendments to the Land Development Regulations of the City Code (LDRs) and recommend that the Mayor and City Commission (City Commission) refer the amendments to the Planning Board.

BACKGROUND/HISTORY

On June 26, 2024, at the request of Commissioner Tanya K. Bhatt, the Mayor and City Commission referred the item (C4 V) to the LUSC. On July 9, 2024, the LUSC discussed and continued the item to the September 5, 2024, LUSC meeting with direction to the Administration to develop options in accordance with the following:

1. Increase and enhance porous attributes of driveways and walkways in residential districts.
2. Establishing minimum porous requirements in surface parking lots.
3. Explore the use of porous material within on-street parking spaces.
4. Increase and enhance water quality and water retention elements in residential districts.

On September 5, 2024, the item was deferred to a future meeting date, with no discussion.

ANALYSIS

As indicated in the attached referral memorandum, the item sponsor has requested that the LUSC review and discuss current and proposed best practice requirements to significantly enhance the requirements for projects including but not limited to new driveways, sidewalks, pool decks, patios, and front of property landscaping.

Pursuant to Chapter 5 of the LDRs, pertaining to off-street parking, open-air parking lots, including all parking spaces and drive lanes, must be constructed with one of the following:

1. A high albedo surface consisting of a durable material or sealant in order to minimize the urban heat island effect; or
2. Porous pavement.

For informational purposes, high albedo surface and porous pavement are defined as follows:

High albedo surface means a material that has a solar reflectance value of 0.65 or greater on the Solar Reflectance Index ("SRI"), consistent with the Cool Roof Rating Council Standard Product Rating Program Manual ("CRRC-1"), as may be amended from time-to-time.

Porous pavement means a pavement material that allows for water to drain through the pavement surface into the ground. Such pavement shall have a minimum of 20 percent of air content, or voids to allow for the water to drain.

Additionally, all parking lots must comply with the minimum landscaping requirements set forth in Chapter 4 of the Resiliency Code.

As it pertains to yard requirements in single family (RS) districts, the following is noted:

- At least 50 percent (50%) of the required front yard and side facing a street yard areas (including portions of the rear and front yards) shall be sodded or landscaped pervious open space.
- If an understory is provided, at least 70 percent (70%) of the required front yard and street side yard areas shall consist of sodded or landscaped pervious open space.
- At least 70 percent (70%) of the required rear yard shall be sodded or landscaped pervious open space.

Depending on the lot size, there are also minimum open space requirements in the residential multi-family districts.

As it pertains to public rights of way, including sidewalks, the use of pervious materials, such as pavers set in sand, can be challenging in terms of accessibility and maintenance. Also, on State rights of way, the Florida Department of Transportation has minimum requirements for road surfaces that are difficult to vary from.

UPDATE – October 10, 2024 LUSC:

At the July 9, 2024 LUSC meeting, direction was given to the Administration to develop options in the following four different areas:

Increase and enhance porous attributes of driveways and walkways in residential districts

The following amendments to Section 7.2.2.3.b of the LDRs, pertaining to the development regulations for the RS-1, RS-2, RS-3, RS-4 single-family residential districts are recommended:

(5) If an Understory is not provided, at least 70 percent (70%) ~~50 percent (50%)~~ of the required front yard and side facing a street yard areas (including portions of the rear and front yards) shall be sodded or landscaped pervious open space. The aforementioned sodded or landscaped pervious open space requirement may be less than 70 percent (70%), but no less than 50 percent (50%), provided all driveways, paths, walkways and any other paved areas consist of pavers set in sand, which have water percolation attributes. With the exception of driveways and paths leading to the building, paving may not extend any closer than 5 feet to the front of the building. ~~When a pool~~ If a swimming pool or any other water feature is located in the side yard facing a street, the area of the water may not count as part of the open space.

In the event that an existing single-family home has an abutting street raised pursuant to an approved city project, and such home was previously permitted with less than 50 percent (50%) of the required front yard area consisting of sodded or landscaped pervious open space, such property may retain the most recent, previously permitted pervious open space configuration, provided the front yard is raised to meet the new street elevation. However, in no instance shall less than 30 percent (30%) of the required front yard be sodded or landscaped pervious open

space.

(6) If an Understory is provided, at least 70 percent (70%) of the required front yard and street side yard areas shall consist of sodded or landscaped pervious open space. For purposes of this section, the required front yard shall be the same as the required front setback of the principal structure. All allowable exterior walkways and driveways within the front and street side yards shall consist of pavers set in sand, which have water percolation attributes or other semi-pervious material. The use of concrete, asphalt or similar material for walkways, driveways, or paths within the required front or street side yards shall be prohibited. If a swimming pool or any other water feature is located in the side yard facing a street, the area of the water may not count as part of the open space.

(7) At least 70 percent (70%) of the required rear yard shall be sodded or landscaped pervious open space; the water portion of a swimming pool may not count toward this requirement; ~~when located above adjusted grade, the water portion of a swimming pool may count towards 50 percent of this requirement, provided adequate infrastructure is incorporated into the design of the pool to fully accommodate on-site stormwater retention.~~

Establishing minimum porous requirements in surface parking lots

The following amendments to Section 5.3.11.c, pertaining to open-air parking lots, are recommended:

c. Open-air parking lots, open to the sky, shall be constructed with the following:

1. A a high albedo surface, consisting of a durable material or sealant in order to minimize the urban heat island effect, or shall be required on all non-landscape surfaces and areas that do not consist of porous pavement.

2. A minimum of 60% of all non-landscape surfaces and areas shall consist of porous pavement.

The provisions of this paragraph shall apply to all parking areas, and all drive lanes and ramps.

Explore the use of porous material within on-street parking spaces

As indicated previously, the use of pervious or semi-pervious material for on-street parking spaces must be looked at deliberately, and on a project by project basis. In this regard, the First Street project will incorporate permeable pavers in the parking and valet lanes, as well as some stormwater retention and percolation within the swales.

The future use of porous material within city right-of-way, including on-street parking spaces, should continue to be evaluated on a project by project basis.

Increase and enhance water quality and water retention elements in residential districts

In 2020, the City Commission adopted the Blue-Green Stormwater Infrastructure Concept Plan, which included ways to increase and enhance water quality and water retention elements in residential districts. Some of the recommended practices in this plan include the following:

- Bioretention using natural ponds and swales, as well as the implementation of rain gardens and blue-green roofs.
- The use of floating wetlands and retention basins.
- Enhanced tree planters.
- Pumped injection wells.
- Subsurface infiltration and storage.
- The use of wet ponds.

The following is a summary of related work that has been planned or completed in areas of the City that are within or near residential districts:

- Brittany Bay Park - hybrid living shoreline.
- Canopy Park - bio swale and cistern.
- Maurice Gibb Park - hybrid living shoreline and stormwater retention through installation of Arc Tanks.
- Bayshore Park - stormwater retention pond and permeable pavers in parking lot.
- Collins Park Canal - hybrid living shoreline/ floodable park.
- Muss Park - living shoreline.
- 59th Street bio swale.

SUMMARY

The Administration believes the aforementioned LDR amendments, pertaining to the porous attributes of driveways and walkways in residential districts and minimum porous requirements in surface parking lots, are highly worthwhile policy changes. If there is consensus on amending these provisions of the LDRs, a separate referral by the City Commission to the Planning Board would be required.

FISCAL IMPACT STATEMENT

No Fiscal Impact Expected

Does this Ordinance require a Business Impact Estimate? No
(FOR ORDINANCES ONLY)

The Business Impact Estimate (BIE) was published on .

See BIE at: <https://www.miamibeachfl.gov/city-hall/city-clerk/meeting-notices/>

FINANCIAL INFORMATION

N/A

CONCLUSION

The Administration recommends that the Land Use and Sustainability Committee endorse the proposed amendments to the LDRs and recommend that the City Commission refer the amendments to the Planning Board.

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)

Commissioner Tanya K. Bhatt

Co-sponsor(s)

Condensed Title

Request For The Administration To Explore And Provide Options For Establishing New Resiliency Best-Practice Parameters To Ensure That Porous Concrete/Pavers And Bioswales Are Used In New Development To Help Mitigate “New Normal” Flooding Events.