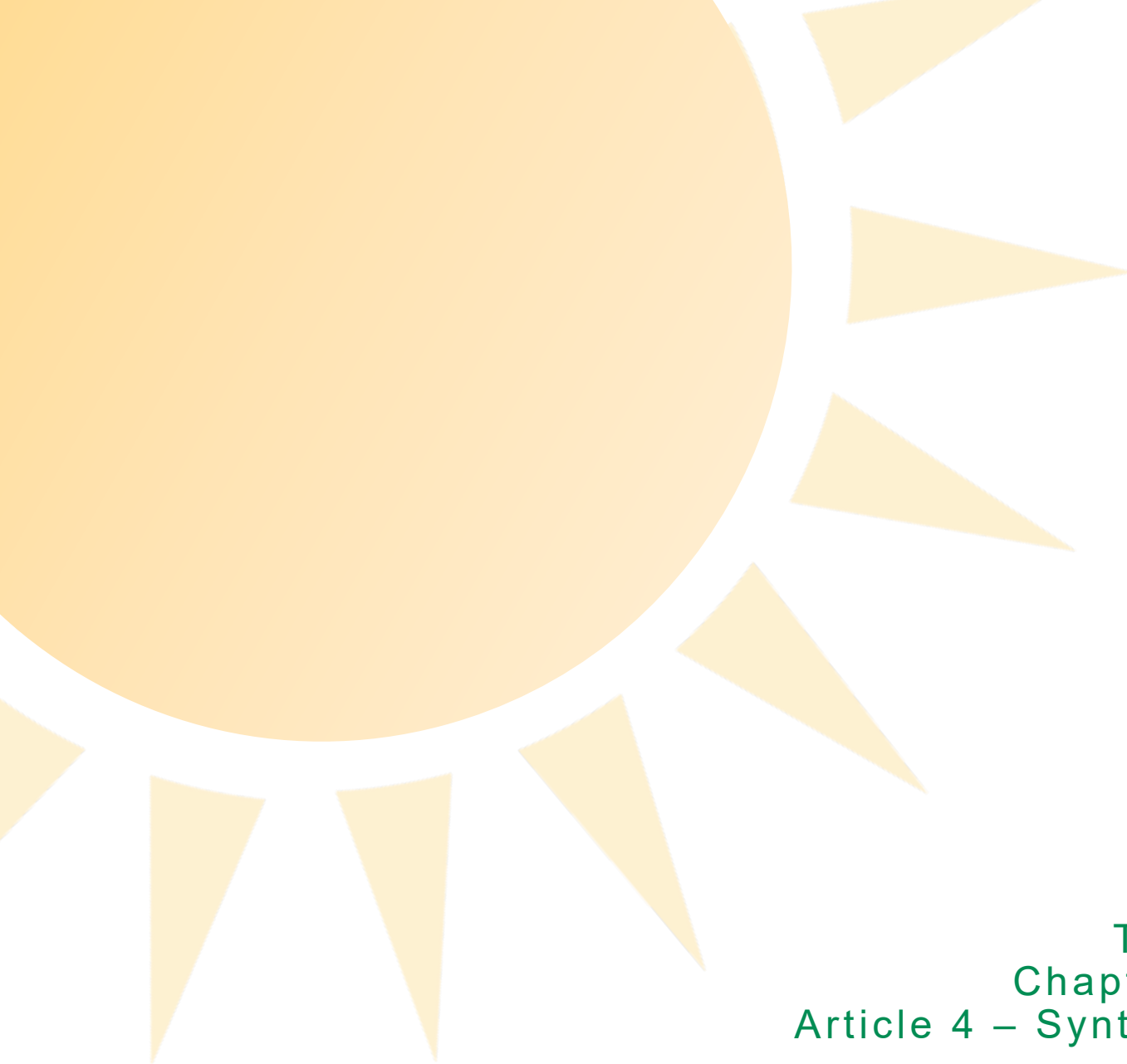




Text Amendment:
Chapter 155, Zoning Code
Article 4 – Synthetic Turf (new accessory use)





Use of Synthetic Turf in Pompano Beach

During the March 12, 2024 City Commission Meeting, the Commission asked Staff to look into the City's synthetic turf regulations. The Zoning Code (Chapter 155, Code of Ordinances) includes the required pervious/impervious areas for a property within a particular Zoning District (Article 3); as well as the definitions and interpretations section (Article 9) that provides an explanation for the measurement of pervious area, including any non-living materials within the pervious area. Synthetic turf is calculated as either an impervious surface or a pervious non-living area.

For example, if you have an 8,000 square foot lot (80ft x 100ft) in an RS-2 Zoning District, the following would apply:

RS-2 Zoning District Intensity/Dimensional Standards (abbreviated)

Front yard setback, minimum (ft)	25
Pervious area, minimum (% of lot area)	30
Required Front Yard, Pervious Area, minimum (% of Required Front Yard)	50



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Impervious Surface

Land surface that does not allow, or minimally allows, the penetration of water. Examples are buildings and nonporous concrete and asphalt pavements.

Pervious Area

The area of a site covered by ***living plant material*** that allows precipitation to infiltrate directly into the ground. ***Up to 15%*** of the area may be covered with mulch or other types of ***non-living pervious materials***.



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With that established, the following calculations and determinations can be made:

The front yard is 80 feet wide and 25 feet deep = 2,000 square feet

The required pervious area of the total property (8,000 x 30%) = **2,400 square feet**

The required pervious area required within the front yard (2,000 x 50%) = **1,000 square feet**



Use of Synthetic Turf in Pompano Beach

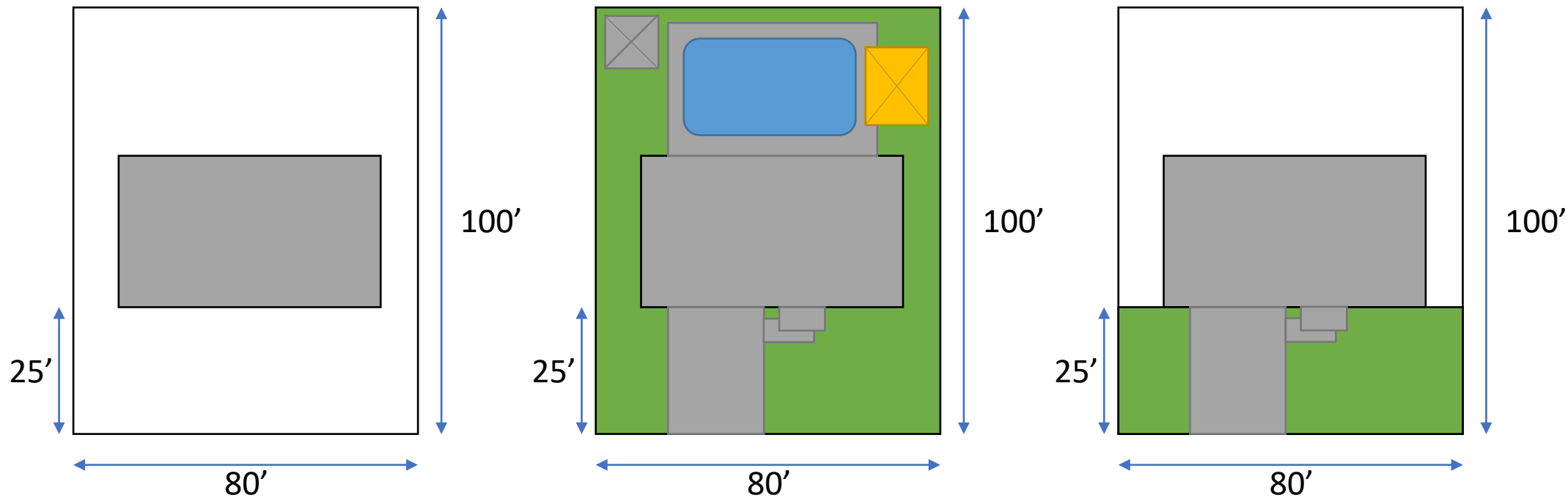


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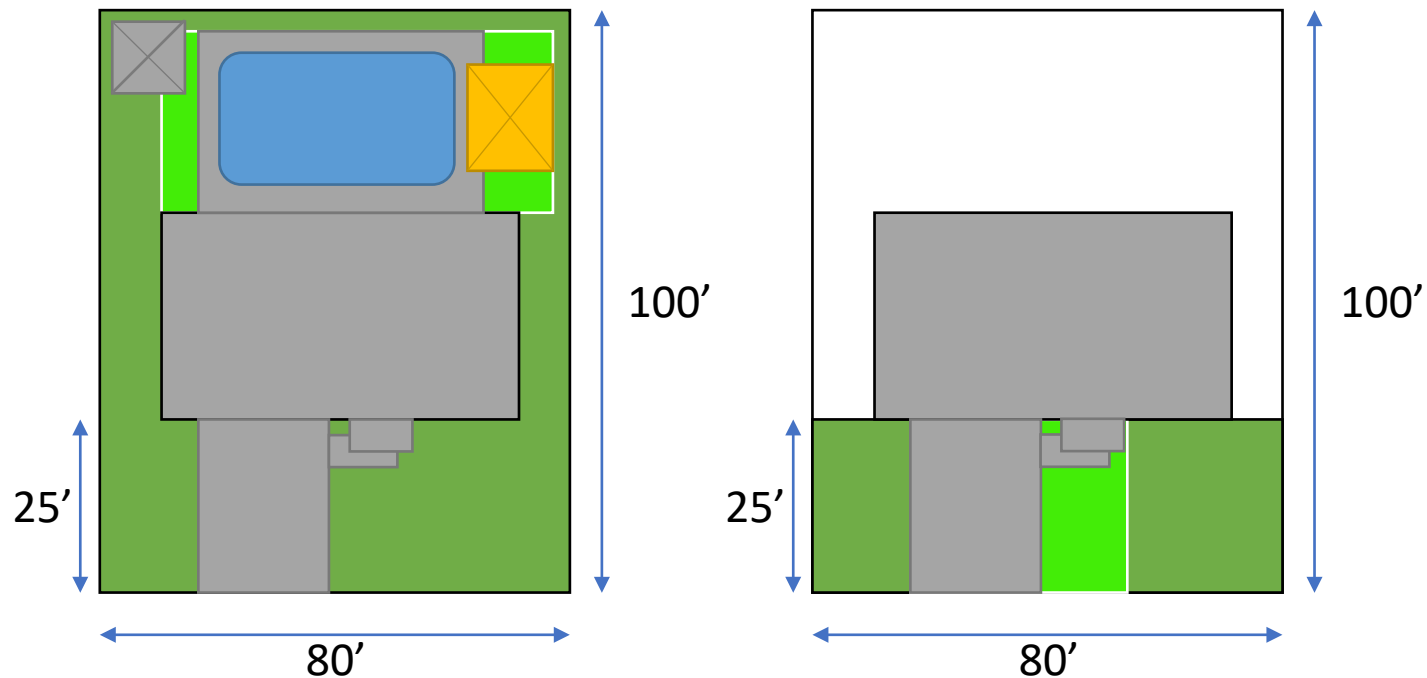
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Use of Synthetic Turf in Pompano Beach

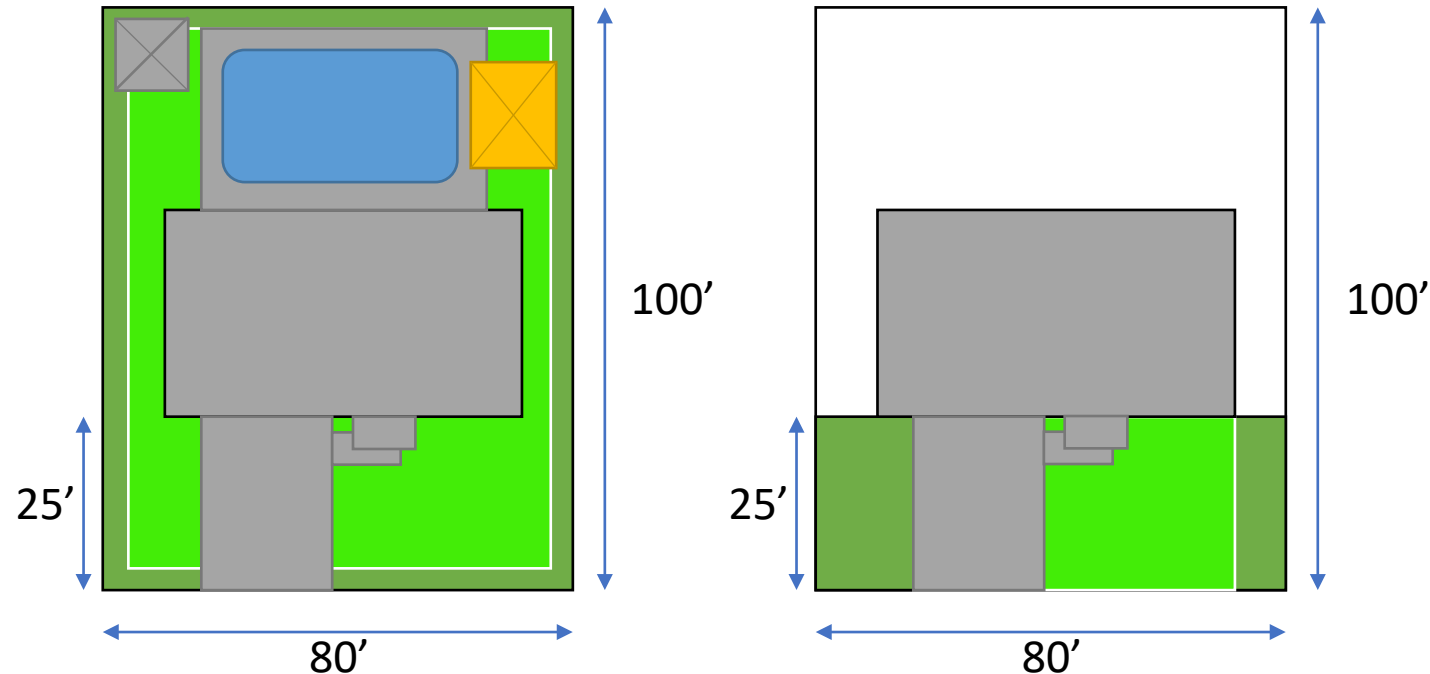
With these findings, synthetic turf may be used anywhere on the lot that is not required to be pervious (the 70% impervious area) AND/OR synthetic turf may be used within the required pervious areas up to the 15% that is allowed to be a non-living material.





Use of Synthetic Turf in Pompano Beach

However, many property owners want to replace more of the lawn area with synthetic turf rather than with living grass and often the entirety of the front yard with synthetic turf. Our code does not have standards for the treatment of synthetic materials other than our pervious area requirements.





Rationale for Regulation of Synthetic Turf

Generalized – see staff report for greater detail.

- Living materials clean the air, clean water, recharge ground water supply, reduce heat, reduce stormwater water runoff.
 - Synthetic turf systems may be permeable but are frequently installed on compacted subgrade reducing permeability.
 - Synthetic turf systems may include drainage systems that would be required to be installed concurrent with the turf and require regular maintenance.
- Any synthetic turf installed, must be consistent with other regulation and the City's Code of Ordinances (i.e. landscape code, building code, floodplain management, public right-of-ways)





Review of Regulation from Comparable Municipalities

Somewhat consistent DEFINITION

Synthetic turf means a dense and continuous surface of synthetic fibers mounted on a permeable backing and of sufficient density and green color to replicate the appearance of healthy natural grass.

Is it PERVIOUS

Codes frequently require that synthetic turf be mounted to a permeable backing with various standards for sufficient drainage. Where compliant, synthetic turf may be considered pervious, as is the case in Lighthouse Point, Lantana, Marco Island, Ocean Ridge, and Surfside, for example. However, this is not always the case; the City of Orlando, West Palm, and Winter Park, for example, treat synthetic turf the same as an impervious surface while requiring a minimum permeability.





Review of Regulation from Comparable Municipalities



DESIGN Standards

- language on the appearance (as a living lawn), on a minimum pile/fiber height and density, material, and permeability.
- warranty guaranteeing color and height for a number of years is required.
- Many codes require that documentation stating the materials are lead-free and that the materials are disposable per certain protocols is provided.

INSTALLATION Standards

- **Anchored** to ensure that the turf will withstand the effects of wind
- **All seams are fitted** to resemble a natural look
- It must be **installed over a subgrade** prepared to provide positive drainage. Proper drainage shall be provided for all synthetic turf installations to prevent excess runoff or pooling of water.
- **Have an infill medium** consisting of clean silica sand or other mixture, pursuant to the manufacturer's specifications or as approved by the city engineer
- An appropriate **solid barrier device** (e.g., concrete mow strip, bender board) is required to separate synthetic turf from soil and live vegetation.
- Precautions for **installation around existing trees** shall be monitored and may be restricted to ensure tree roots are not damaged with the installation of the base material and that the overall health of the tree will not be compromised.



Review of Regulation from Comparable Municipalities



MAINTENANCE Standards

- Maintained in a green fadeless condition and shall be maintained free of dirt, mud, stains, weeds, debris, tears, holes, and impressions.
- To include cleaning, brushing, and debris removal; repairing of depressions and ruts to maintain a visually-level surface; elimination of any odors, flat or matted areas, weeds, and invasive roots; and all edges of the synthetic turf shall not be loose and must be maintained with appropriate edging or stakes.
- Replaced if it falls into disrepair with fading, holes, or loose areas. Replacement and/or repairs shall be done with like-for-like materials from the same manufacturer and done so in a manner that results in a repair that blends in with the existing synthetic turf.

PROHIBITION

- prohibited within rights-of-way (i.e., swales) and within required on-site drainage features.
- prohibited within a certain distance of natural waterways. Both of these separation requirements from synthetic turf and the drainage areas or waterways are due to the potential for contamination resulting from the infill materials required at the time of installation and with maintenance over time.
- Outdoor plastic carpeting as a replacement for turf is often prohibited.
- Rubber may also be considered as a prohibited material for infill.
- prohibited within the drip line of any tree.



Relevant Regulation within the City



DRAINAGE (Single Family / Duplex On-Site Stormwater Retention)

- Chapter 152, Floodplain Regulations
 - Previously, pervious area requirement is the only relevant standard
 - Neighbor complaints related to run-off – no drainage plan on file or enforcement ability
 - Higher finished floor elevation requirements for new construction and substantial improvement result in more complaints about stormwater runoff onto neighboring properties.
- With this Ordinance, it is now reasonable to require parcels to retain 1 inch of rainfall on-site. This amount is consistent with the Water Management District and County permitting requirements for other properties to retain stormwater.
- Each property must determine the most efficient configuration for stormwater retention areas, swale areas, and/or retaining walls to be implemented to retain 1 inch of stormwater runoff on-site, subject to inspection and code enforcement.

Applicable properties:

- Single-Family
- Duplex

When:

- New Construction, with fill
- Substantial Improvement, with fill
- With the use of Synthetic Turf *???



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- Single-Family
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When:

- New Construction, with fill
- Substantial Improvement, with fill
- With the use of Synthetic Turf *???



Drafted Regulation



Districts where permitted - All, but allowed for Single-Family and Two-family uses only

Definition - Synthetic turf means a dense and continuous surface of synthetic fibers mounted on a permeable backing and of sufficient density and green color to replicate the appearance of healthy natural grass.

Standards -

- Properties will be required to provide a Stormwater Management Plan, as defined in Building Code (Chapter 152)
- Design Standards
 - Appearance of live turf, eight-year manufacturer's warranty against color fading or decrease in pile height
 - Height of 1.5 inch minimum; face-weight of 56 ounces, polyethylene/dual yarn system, made in USA
 - Minimum permeability of 30 inches per hour per square yard.
- Installation Standards
 - Requires licensed Contractor or Landscape Architect
 - Installed over subgrade, compacted, porous material
 - Anchored with no visible seams
 - Infill medium of silica sand (or other as approved by the City Engineer)



Drafted Regulation



Standards (continued) -

Additional Standards –

- Properties shall be in full compliance with the requirements of the landscape code.
- Areas of living plant material shall be maintained in conjunction synthetic turf when in the front yard.
- Synthetic turf shall be separated from planted areas and tree wells by a concrete mow strip, or similar, to prevent the intrusion of living plant material into the synthetic turf.
- No irrigation to affect the synthetic turf area.
- Turf to be anchored behind the seawall. No installation shall be attached directly to or placed on a seawall or seawall cap.

Maintenance Standards –

- be maintained in an attractive and clean condition, and shall not contain holes, tears, stains, discoloration, seam separations, uplifted surfaces or edges, heat degradation or excessive wear.
- Maintain a consistent pile height and green fadeless condition, free of weeds, debris, and impressions.

Synthetic turf is prohibited in the public rights-of-way or swales.

All uses of synthetic turf shall require a building permit.



Additional Information as requested by P&Z



1. Setback of turf from property lines:

- *Turf shall not be permitted within 36 inches of an interior side or rear property lot line, unless a fence or hedge is provided on the property line. The 36-inch buffer shall be landscaped with living plant material.*

2. The requirement for a “hard barrier” or “edging” where synthetic turf is abutting a property line:

- *Synthetic turf shall be separated from areas with living ground cover and/or tree wells by a concrete mow strip, bender board or other barrier with a minimum four-inch thickness to prevent the intrusion of living plant material into the synthetic turf.*

3. The setback of the synthetic turf from a waterway or canal property line:

- The examples from the staff report are from municipalities that do not have similar canal conditions to Pompano Beach. All coastal community examples researched (including Fort Lauderdale) are silent on this requirement except regarding the pinning of turf immediately behind the seawall rather than attached to. If no seawall exists the rear property line could be treated like a rear property line, requiring a 36 inch separation.



Additional Information as requested by P&Z

4. Requirements for living material on property (in draft already):

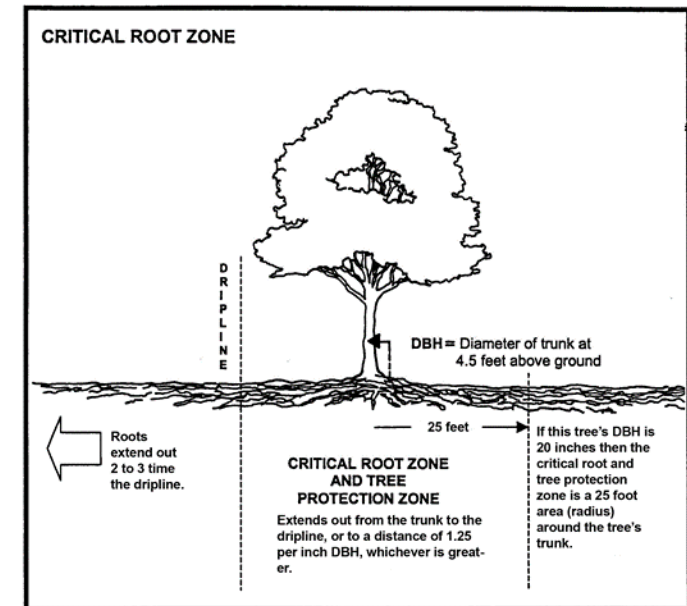
- “Areas of living plant material shall be installed and/or maintained in conjunction with the installation of synthetic turf when utilized in the front yard area. Living plant material shall include a combination of two or more shrubs, vines, trees, or groundcover in separate planted areas and tree wells allowing natural percolation directly in to the critical root zones.”

AND

- “Properties proposing synthetic turf as a pervious surface shall be in, or brought in to, full compliance with the requirements of the landscape code.”

5. Requirements for a certain area around the base of a tree to remain as a natural non-compacted ground cover:

- “Areas of living plant material shall be installed and/or maintained in conjunction with the installation of synthetic turf when utilized in the front yard area. Living plant material shall include a combination of two or more shrubs, vines, trees, or groundcover in separate planted areas and tree wells allowing natural percolation directly in to the critical root zones.”





Department Recommendation

Given the information provided to the Board, the Development Services Department provides the following alternative motion options, which may be revised or modified at the Board's discretion.

Alternative Motion I

The Board recommends approval of the code amendment, (**as amended/incorporating the recommended changes by staff/etc...**), as it finds the proposed revisions consistent with the Comprehensive Plan and meets the review standards for a zoning code text amendment.

Alternative Motion II

The Board recommends the item be tabled to give Staff time to address and issues raised by the Board, Staff, or the general public.