

# MIAMI BEACH

## COMMITTEE MEMORANDUM

TO: Public Safety and Neighborhood Quality of Life Committee Members

FROM: Alina T. Hudak

DATE: October 24, 2023

SUBJECT: **DISCUSSION REGARDING ADDING SHADE TREES AND RE-PAVING PARKING LOT P-63.**

---

### **HISTORY:**

On December 14, 2022, at the request of Commissioner Kristen Rosen-Gonzalez, the City Commission referred a discussion item (C4 O) to the Public Safety and Neighborhood Quality of Life Committee (Attachment A). The referral recommended shade and improvements for parking lot P63, located at 4166 Royal Palm Avenue. On June 21, 2023, the item was discussed and the action item was to prepare a cost estimate of adding shade trees on the interior of the parking lot, understanding that this would be a capital project estimate based on the need to create areas for planting.

### **ANALYSIS**

The Environment and Sustainability Department evaluated the lot for opportunities to add shade trees and provided two (2) initial options for the June 21 Committee meeting. The first option is to add medium to large canopy trees. The second option is to add smaller trees on the eastern side of Royal Palm Avenue to improve the pedestrian experience and increase tree canopy.

#### **Option 1- Canopy Trees**

The Environment and Sustainability Department worked with the Office of Capital Improvement Projects to develop a planning level project scope and estimate. Due to the current lot configuration, lot changes would be necessary to create planting space to add canopy trees to provide substantial shade and thrive. A suspended pavement system would be needed to provide adequate uncompacted soil volume for the trees to flourish.

#### **Optimal Tree Planting Locations**

The P-63 surface parking lot is an existing asphalt paved parking lot, consisting of 4 aisles of parking divided by three raised concrete medians (Attachment B). The lot has an existing drainage system, connected to the City's public right-of-way drainage, and existing parking lot lighting. In an attempt to minimize the impact to parking spaces and reduce project costs, staff considered limiting tree planting to occur within the concrete medians. Tree planting would need to be coordinated with existing lighting to avoid the creation of dark spots as the trees mature. Restricting planting to occur within the medians would also avoid any potential grading and

drainage upgrades or alterations.

### **Permitting and Underground Infrastructure Requirements**

The proposed project, occurring within the limits of a Government Use District property, would require a full permit review and issuance by the City's building department, as the project would include relocation of existing underground electrical infrastructure as well as new asphalt, concrete and landscape irrigation, in addition to the new trees.

Considering the existing conditions, the project would include work to remove the compacted limerock, concrete and asphalt which, if not removed, would impede root growth and establishment. To ensure the longevity of the trees, provide sufficient area for root growth, and encourage larger tree growth, the sub-surface soils would have to be replaced with a nutrient rich, non-compacted material, while simultaneously providing the structural bearing capacity to withstand vehicular loads. This "suspended pavement" system (Attachment C) includes a structural grid, infilled with a mix of favorable planting materials, fostering root growth while providing a durable paving surface and eliminating future root damage to the asphalt. In order to provide proper root area, the suspended pavement system should include an area generally equivalent to the spread of the tree canopy. In this case, the system would cover an area of 20' x 20' (400 sf) for each tree, with a depth of approximately 36".

### **Cost Estimate**

Staff developed a conceptual plan (Attachment D) for the parking lot which also identifies the limits and quantities of the anticipated work. With this conceptual plan, an order of magnitude estimate was derived, utilizing historical cost data for other City projects, including a variable for cost escalations over time. At this time, the cost estimate to install twenty-four (24) trees within the P-63 surface parking lot, with a minimum overall height of 18', inclusive of related suspended pavement, irrigation, electrical work, design, permitting and other soft costs is approximately \$1,655,000. This estimate also includes milling and resurfacing the parking lot.

While performing the analysis and cost exercise, City staff did identify an opportunity to further reduce project costs, depending on the timing and availability of Tranche 2 of the 2018 General Obligation Bond. As tranche 2 would include funding for Citywide reforestation, the costs of the trees could be funded through the GO Bond, potentially reducing the necessary funding by as much as \$100,000. It is worth noting that there is considerable uncertainty in the estimated costs for trees due to current volatility and extreme market variability.

### **Option 2- Smaller Trees on Lot Perimeter**

The second option is to add smaller trees in available planting spaces surrounding the lot to improve the pedestrian experience and increase tree canopy. Smaller trees would need to be utilized to avoid safety issues posed by the existing overhead power lines. This would provide some shade for the pedestrians and improve lot aesthetics. Twenty (20) small to medium trees could be planted, which would cost approximately \$40,000 dollars. However, based on current and prior projects, the estimated costs for trees is highly variable.

### **CONCLUSION:**

This information is being provided to the Committee for discussion regarding planting trees in parking lot P-63 to provide shade and improve lot aesthetics.

### **Applicable Area**

Citywide

**Is this a "Residents Right to Know" item, pursuant to City Code Section 2-14?**

Yes

**Does this item utilize G.O. Bond Funds?**

No

**Strategic Connection**

Neighborhoods - Enhance the beautification, physical appearance and cleanliness of neighborhoods.

**ATTACHMENTS:**

<b>Description</b>	<b>Type</b>
<input type="checkbox"/> Exhibit A - Referral Memo	Memo
<input type="checkbox"/> Exhibit B - Existing Conditions	Other
<input type="checkbox"/> Exhibit C - Suspended Pavement System Detail and Photos	Other
<input type="checkbox"/> Exhibit D - P63 Concept Plan	Other

Committee Assignments - C4 O

# MIAMI BEACH

## COMMISSION MEMORANDUM

TO: Honorable Mayor and Members of the City Commission  
FROM: Commissioner Kristen Rosen Gonzalez  
DATE: December 14, 2022

SUBJECT: REFERRAL TO PUBLIC SAFETY NEIGHBORHOOD QUALITY OF LIFE COMMITTEE TO DISCUSS ADDING SHADE TREES AND RE-PAVING PARKING LOT P-63.

**BACKGROUND/HISTORY**

The parking lot across the street from North Beach Elementary is essential for drop-off and pickup at the school. This parking lot needs some shade trees and repaving. Many of our surface lots have not received any TLC in a long time, and I think some beautification is in order, and maybe we can start with a parking lot our children see each morning as they are dropped off at school.

**SUPPORTING SURVEY DATA**

na

**FINANCIAL INFORMATION**

na

**Applicable Area**

Citywide

**Is this a "Residents Right to Know" item, pursuant to City Code Section 2-14?**

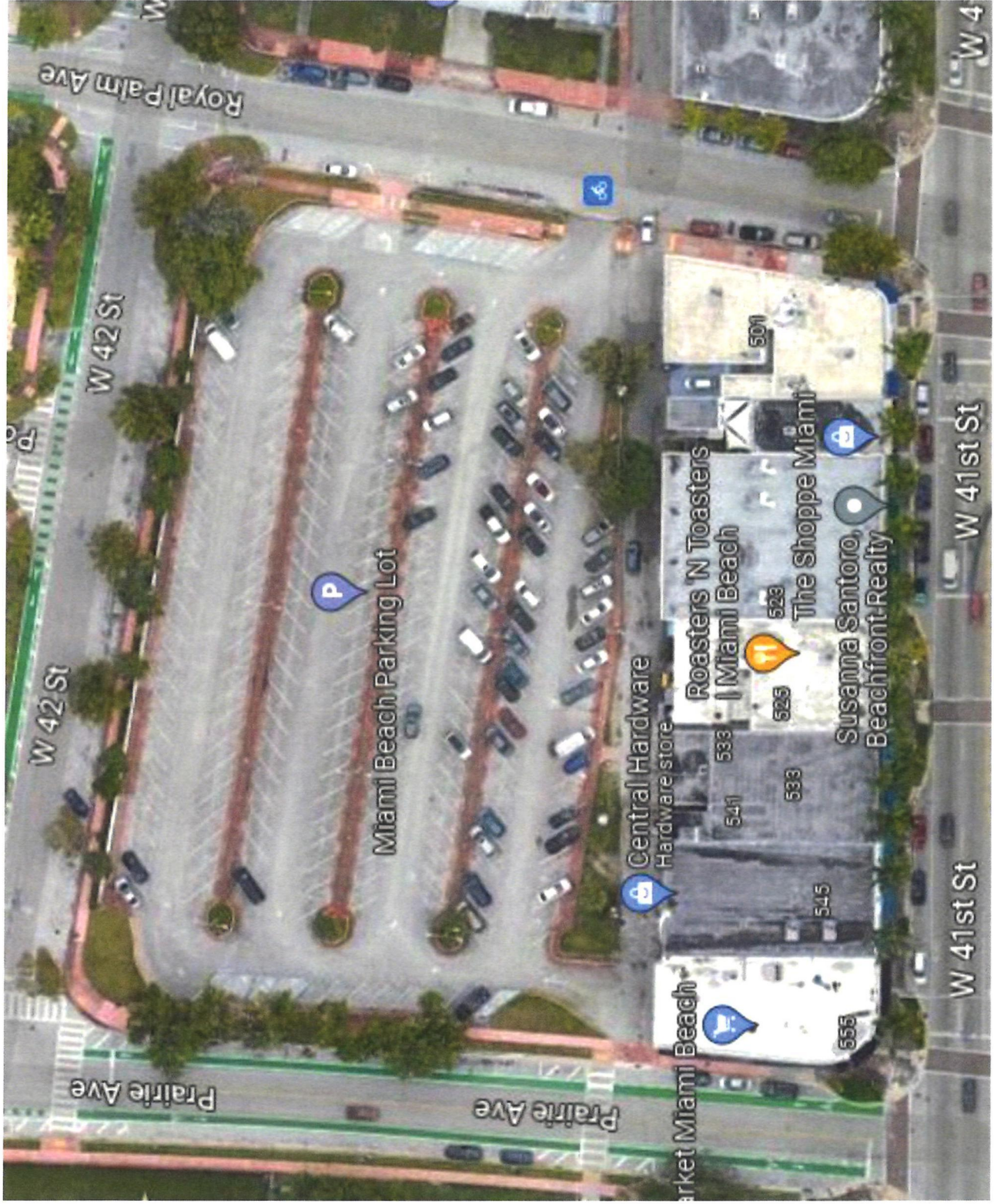
Yes

**Does this item utilize G.O. Bond Funds?**

No

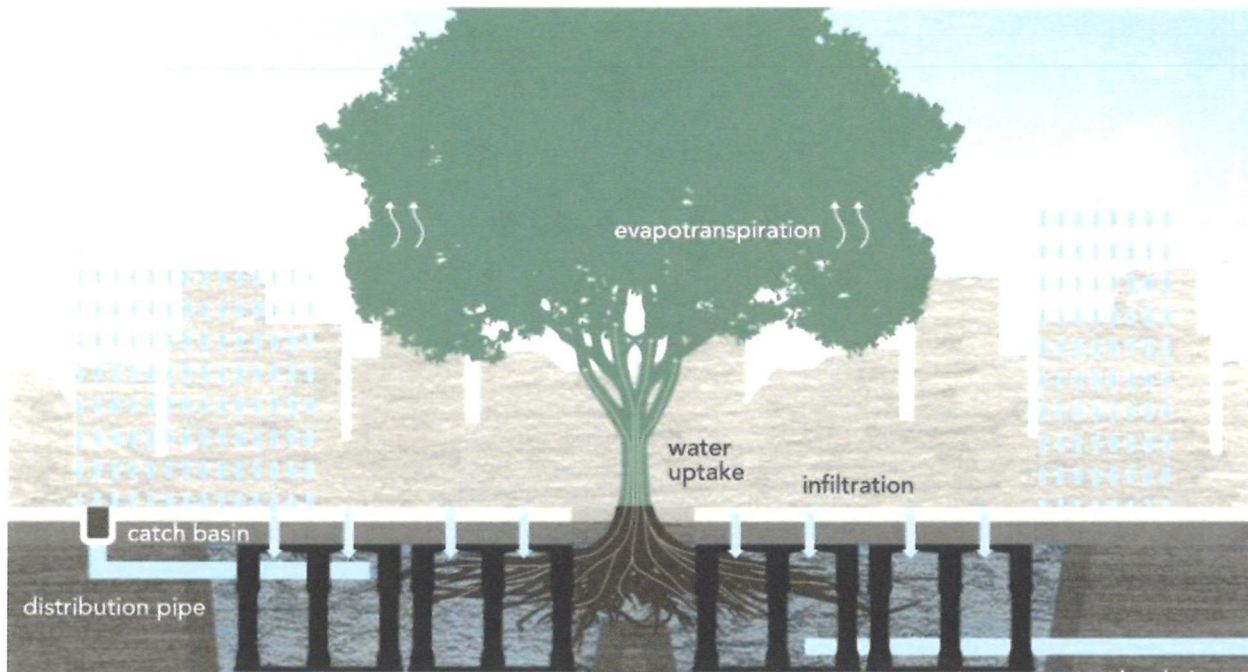
**Legislative Tracking**

Commissioner Kristen Rosen Gonzalez





P-63 Existing Conditions



Suspended Pavement System Diagram



Suspended Pavement System Installation Progress Photo



Suspended Pavement System Installation Progress Photo



Suspended Pavement System Installation Progress Photo

West 42 Street

New Tree  
(typical)

Mill and  
Resurface  
Asphalt  
Throughout

Prarie  
Ave

Royal  
Palm  
Ave

Conceptual Tree Planting Site Plan  
City Surface Parking Lot (P63)  
4166 Royal Palm Avenue  
July 7, 2023



**THIS PAGE INTENTIONALLY LEFT BLANK**