

# **EXHIBIT I**



**Brevard County, FL  
Gazebo  
Structural Assessment**



September 26, 2022

# MEMO

TO: Brevard County Facilities Department  
ATTN: Michael Dunlap – Facilities Construction Coordinator  
FROM: Nikos Moschovakis E.I.  
DATE: September 26, 2022  
RE: Structural Inspection

Gazebo  
Viera Wetlands, West of 10001 N Wickham Rd,  
Melbourne, FL 32940

On August 22, 2022, I performed an inspection of the gazebo at the above-mentioned address to provide an assessment of its structural condition.

Based on the visual inspection of exposed structural members, the gazebo NEEDS STRUCTURAL REPAIRS. There was no destructive testing done at this building and none of the covered structural members could be visually inspected. As a routine matter, and to avoid misunderstandings, nothing in this report should be construed directly or indirectly as a guarantee for any portion of the structure. To the best of my knowledge and ability, this report represents an accurate appraisal of the present condition of the structures based on careful evaluation of observed conditions to the extent reasonably possible.

## **Inspection subject:**

The subject of the gazebo inspection was to perform a structural visual condition assessment of the current condition of the tower.

## **Structural System:**

The 1 story gazebo is a wood structure that consists of wood posts and floor planks with perimeter wood railing. The roof consists of metal standing seams, wood beams, and rafters. Roof wood beams are supported on truss-type girders that span between wood posts. The gazebo entrance consists of a wood plank sloped walkway with wood railing. The gazebo is supported on wood grade beams. No visual connection between the wood grade beam to the ground. Wood railing restricts the perimeter area to the wetlands.

## Inspection Map



Gazebo

### **Required Structural Repairs:**

1. The structure should be prohibited to the public in any case, as coordinated previously. The current conditions can cause human injury or death. Operation of the structure can continue after all the required repairs are performed or replacement of the structure. Keep away from the structure in the case of an extreme event. The structure appeared unstable.
2. Repair/replace all the wood railing in the structure.
3. Replace all wood floor planks including the walkway.
4. Replace all rusted nails that attach the metal seam to the rafters.
5. Replace all rusted and damaged Simpson connections (Hurricane ties). Connections might fail in the case of an extreme event.
6. Replace/repair wood posts and beams.
7. Replace grade beams and the beams that support the gazebo on the grade beams.
8. Verify the foundation that grade beams are connected to.
9. Remove/replace the barrel structure.

**Pictures**



Picture 1

Surface cracks with the possibility of grain shear on wood posts.



Picture 2

Damaged-cracked wood floor planks. Excessive deflection while walking on the deck.



Picture 3

Damaged-cracked wood floor planks.



Picture 4

Damaged wood planks on the walkway. An excessive deflection was noticed while walking on the deck.



Picture 5

Damaged railing.



Picture 6

Damaged walkway railing and walkway beam in bad condition.





Picture 7

Moisture signs and surface cracks on multiple roof beams and rafters. Screws connecting the metal seam with the rafter appeared rusted and possibly not adequate on uplift forces in an extreme event.



Picture 8

Hurricane ties appeared in bad condition and deflected. Rusted metal seam roof and signs of a water leak.





Picture 9

Grade beams and perimeter low beams are in bad condition. Surface cracks and possible further damage due to weather and moisture.



Picture 10

A damaged exterior structure that supports the water barrel.



Picture 11

Damaged and unstable perimeter area wood railing.

## Conclusion



**The structure must remain closed to the public in any case until further structural repair or replacement takes place. At this time the structure can cause a human injury or death. The structure might collapse in excessive vertical loads or in case of an extreme event.**

The wood railing appeared unstable all around the gazebo, the walkway, and the perimeter area. Wood floor planks appeared damaged and in bad condition due to excessive moisture and weather. Hurricane ties appeared deflected and possibly inadequate in tensional forces. The roof metal seam appeared rusted and the screws rusted. Some floor beams appeared damaged by moisture. Surface damage on the wood posts and possible core cracks. Excessive deck deflection was experienced during the inspection. Grade beams appeared in bad condition, and the connection to the ground is unknown. Structural repairs or gazebo replacement is required in order to continue the operation of the gazebo. Replace the gazebo with a new gazebo is recommended.

Should you have any questions or concerns, please do not hesitate to contact us.

Respectfully submitted

**Master Consulting Engineers, Inc.**

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Nikos Moschovakis E.I.