

# Milestone Inspection Report Phase 1

## The Terra Ceia Club Condominium Association Inc.



**2320 Terra Ceia Bay Blvd.  
Palmetto, FL 34221**

Prepared on:  
**10/26/2023**



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# Milestone Inspection Report Phase 1

## REPORT SUMMARY

### 1 GENERAL

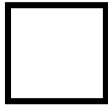
- 1.1 Consult Engineering, Inc. (Consult) has been retained by The Terra Ceia Club Condominium Association Inc.(Association) to inspect the building located at 2320 Terra Ceia Bay Blvd., Palmetto, FL 34221. The purpose of this inspection and subsequent report is to perform a Milestone Inspection of the building in accordance with Florida Statute 553.899(8).
- 1.2 This Milestone Inspection has been performed by the registered professional engineer indicated at the end of this report or one of his/her duly authorized representatives in accordance with Florida Statute Chapter 471. A copy of the full report has been provided to the local building official. Questions related to this report should be addressed to the Association board or the local building official.
- 1.3 The inspection performed is of the readily accessible and visible structural components of the building in both habitable and non-habitable spaces. Sampling has been utilized to extrapolate the findings contained in this report. The visual inspection performed should not be considered exhaustive or all-inclusive, nor is it required to be per Florida law.
- 1.4 Only components listed in this Report Summary and in the "Observations" Section of the full report exhibited any signs of substantial structural deterioration or possible substantial structural deterioration. Building components not listed in this report were either not available for visual inspection or did not exhibit any readily visible signs of substantial structural deterioration.

### 2 PROPERTY DESCRIPTION

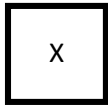
- 2.1 The building located at 2320 Terra Ceia Bay Blvd., Palmetto, FL 34221, is an eight (8) story building constructed of reinforced concrete and masonry with a flat membrane roof and parapet wall. The primary structural components of the building consist of concrete block walls, and reinforced concrete floor slabs, beams and columns.
- 2.2 Other structural life safety components of the building include railings at the open balconies, stairs and lanais. The railings are constructed of aluminum. The walkway railings are attached to the concrete slab edges using post pockets.

### 3 SUMMARY OF FINDINGS

#### 3.1 SUBSTANTIAL STRUCTURAL DETERIORATION



**WAS NOT FOUND** on any of the building components observed visually. A Phase Two Milestone Inspection is not required at this time. Engineer recommends that this study be performed again within 5 years from the date of this report.



**WAS FOUND** on the following structural components of the building thus prompting a Phase Two Milestone Inspection to be performed in accordance with FS 553.899. This DOES NOT mean the building is unfit for habitation or inherently unsafe. Further study is required.

1. Exterior Walkways and Slab Edges

#### 3.2 NON-SUBSTANTIAL STRUCTURAL ISSUES



**WAS NOT FOUND** and no further action is required at this time. Engineer recommends that this study be performed again within 5 years from the date of this report.

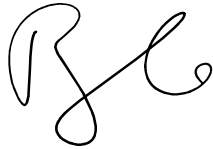


**WAS FOUND** and recommendations for repair are included in the full Phase 1 Milestone Report. Deterioration was discovered at the following locations:

1. Lanai Surfaces
2. Exterior Walls
3. Stair Landings

The undersigned reserves the right to amend this report at any time based on new information provided subsequent to preparation of this report. Please call or e-mail our office if you have any questions.

Sincerely,



Jude Feingold  
Project Engineer



Jared Bickham, PE, 89245

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*This item has been digitally signed and sealed by Jared Bickham, PE, SI on the date adjacent to the seal.*

*Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.*

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## 1 GENERAL

### 1.1 BACKGROUND

- 1.1.1 Florida Statute 553.899 requires that condominiums and cooperative buildings in Florida that have any building 3 stories or more in height be inspected by an engineer or architect licensed in Florida. Initial inspection deadlines and inspection cycles are specified in Florida Statute 553.899(3).
- 1.1.2 The inspection shall consist of two phases: a “Phase 1 Milestone Inspection” and a “Phase 2 Milestone Inspection.” Each building must have its own inspection and separate report.
- 1.1.3 The purpose of the inspections is to identify both “substantial” and “non-substantial” structural deterioration to any components of the building structure and to provide recommendations for repair or next steps.
- 1.1.4 These reports are to be prepared in 10-year intervals at a minimum, but close attention should be given to the recommendations of the engineer preparing the Phase 1 or Phase 2 Milestone Inspection Report for re-inspection periods which may be more frequent than the state requirements.
- 1.1.5 A report must be submitted directly from the engineer to the Building Official and the Association Board. Associations have certain obligations to post the summary report on the premises and provide the unit owners and residents with copies of the report. It is recommended that an Association contact an Attorney for more guidance on complying with the law.

### 1.2 DEFINITIONS

- 1.2.1 *Milestone inspection* - means a structural inspection of a building, including an inspection of load-bearing walls and the primary structural members and primary structural systems as those terms are defined in s. 627.706, by a licensed architect or engineer authorized to practice in this state for the purposes of attesting to the life safety and adequacy of the structural components of the building and, to the extent reasonably possible, determining the general structural condition of the building as it affects the safety of such building, including a determination of any necessary maintenance, repair, or replacement of any structural component of the building. The purpose of such inspection is not to determine if the condition of an existing building is in compliance with the Florida Building Code or the fire safety code. – Florida Statute 553.899(2)(a)

- 1.2.2 *Non-Substantial Structural Deterioration* - any structural distress to any component of the building which does not support other components of the building and which presently does not cause an imminent life-safety risk. However, falling debris from stucco or concrete damage, for example, may still pose property damage and personal injury risks until the repairs outlined in the report can be carried out.
- 1.2.3 *Phase 1 Milestone Inspection Report* – a report outlining any observed substantial structural deterioration and non-substantial structural deterioration. This report is issued to both the Condominium or Cooperative Association and the Building Official in their area. Any substantial structural deterioration observed in the Phase 1 Milestone Inspection Report must be further investigated in a Phase 2 Milestone Inspection Report.
- 1.2.4 *Phase 2 Milestone Inspection Report* – a report outlining the findings of an engineer’s investigation into any substantial structural deterioration identified in a Phase 1 Milestone Inspection Report. Non-destructive and limited destructive techniques are often employed to conduct a Phase 2 Milestone investigation.
- 1.2.5 *Primary Structural Members* - means a structural element designed to provide support and stability for the vertical or lateral loads of the overall structure. - Florida Statute 627.706(2)(d)
- 1.2.6 *Primary Structural Systems* - means an assemblage of primary structural members. – Florida Statute 627.706(2)(e)
- 1.2.7 *Substantial Structural Deterioration* - means substantial structural distress that negatively affects a building’s general structural condition and integrity. The term does not include surface imperfections such as cracks, distortion, sagging, deflections, misalignment, signs of leakage, or peeling of finishes unless the licensed engineer or architect performing the phase one or phase two inspection determines that such surface imperfections are a sign of substantial structural deterioration. - Florida Statute 553.899(2)(b)

## 2 OBSERVATIONS

### 2.1 SUBSTANTIAL STRUCTURAL DETERIORATION

#### 2.1.1 WALKWAYS

2.1.1.1 Spalling is occurring mainly at the old post pocket locations along the slab edges and above the old post pocket locations. Cracking is also occurring from the old post pocket locations into the walkways, (Photos 01 through 08).

2.1.1.2 The spalling and cracking are indications that water is infiltrating into the concrete structure and corroding the reinforcing steel.

2.1.1.3 Steel can expand up to four times its volume causing damage to the surrounding concrete.

### 2.2 NON-SUBSTANTIAL STRUCTURAL ISSUES

#### 2.2.1 PARAPET FAÇADE BRACING TO ROOF

2.2.1.1 The steel L-channel braces supporting the decorative parapet extension façade are rusting (Photo 09 Typical) which can lead to structural capacity reduction.

#### 2.2.2 LANAI FLOOR TILE

Lanai tile grout had staining and cracking (Photos 10 Typical).

Many areas of the tile appear to be deboned from the concrete substrate. This is an indication of concrete and mortar degradation usually by chronic water intrusion below the tile.

The backwards slope of the lanais also contributes to this tile and concrete degradation by allowing water to pool on the tile/concrete.

2.2.2.1 The screen enclosures are typically fastened to the concrete using corroded, non-stainless steel fasteners. These, in combination with the poor sloping; can further break apart the concrete substrate as these fasteners continue to corrode, expand, spall the concrete under the rail and give water a path to the concrete causing increased deterioration, (photos 11 Typical).



### 2.2.3 STAIR TOWER LANDINGS

2.2.3.1 Steel support brackets are rusting (Photo 12 Typical). These brackets support the pre-cast stair landing slabs on 2 of the 4 sides.

2.2.3.2 Cracks are present at the cold joints between the precast landing slabs and the surrounding tower structure (Photo 13 Typical). Moisture entrapment is also a strong possibility at these joints by the caulk along the underside of these joints.

2.2.3.3 Consult observed cracking along the precast stair and Exterior Insulated Finish System (EIFS). This is an indication that moisture infiltration is also occurring between the exterior EIFS and the concrete on the outer edges of the landings (Photo 14 Typical).

### 2.2.4 4<sup>th</sup> FLOOR STORAGE LOCKER ROOM FLOOR

2.2.4.1 Concrete has spalled away from a section of rebar in the floor and is beginning in another location on this floor (Photos 15 and 16). This corrosion can spread (travel) along the rebar and further into the concrete support structure of the building.

### 2.2.5 EIFS

2.2.5.1 The EIFS around the building has sections which are cracking (Photos 17). This can allow for water infiltration and trap water against the concrete or steel framing underneath and degrade it quickly while hidden from non-destructive examination.

## 3 CONCLUSION AND RECOMMENDATIONS

3.1 Consult Engineering, Inc. (Consult) recommends the following actions be taken by the Association or Cooperative Board:

### 3.1.1 **Substantial Structural Deterioration**

3.1.1.1 Perform a Phase Two Milestone Inspection of the items identified in Section 2.1 of this report in accordance with FS 553.899(7)(b). The engineer performing the Phase Two Milestone Inspection should provide recommended repairs to address the items identified in both reports.

**3.1.2 Non-Substantial Structural Issues**

- 3.1.2.1 Roof Façade braces and stair landing brackets should be wire brushed to remove all rust and repainted.
- 3.1.2.2 All caulk should be removed from the underside joints of the stair landings where the precast slab meets the tower side walls in order to prevent the trapping of water inside these joints. The cracks at the cold joints on these landing slabs should be routed out and filled with caulk to prevent water from entering the joint.
- 3.1.2.3 Remaining lanais with tile should be sounded to check for debonding and potential concrete deterioration, stripped, sloped properly, and waterproofed if found to be de-bonded. After these lanais are finished, all screen enclosure fasteners driven into them should be constructed of stainless steel.
- 3.1.2.4 All screen enclosure fasteners on lanais which are currently waterproofed should be replaced with stainless steel fasteners and isolators if not already.
- 3.1.2.5 The spalling present on the floor of the 4<sup>th</sup> floor storage locker room should be repaired per ICRI and ACI.
- 3.1.2.6 The EIFS should be inspected, and any penetrations should be sealed, especially around the outer surface of the stair landings.
- 3.1.3 All Non-Substantial Structural Issues should be repaired as soon as possible.
- 3.1.4 Concrete repairs should be completed per ICRI (International Concrete Repair Institute) and ACI (American Concrete Institute) standards following the specifications and details prepared by a Florida Registered licensed professional engineer specializing in structural restoration and strengthening of existing structures. These repairs are considered “structural” repairs and must be performed by a licensed General Contractor working under a permit issued by the municipality.
- 3.1.5 A registered Florida Professional Engineer experienced in restoring mid-rise and high-rise structures should prepare bid specifications and bid this work out to qualified contractors.

- 3.1.6 This engineer should carry a “Threshold Inspector” or “Threshold Inspector Limited” certification and act as the Engineer of Records. They should be able to prepare a Threshold Inspection Plan for the repairs to be conducted. This plan should be submitted with the permits in accordance with Florida Statutes.
  
- 3.1.7 Consult Engineering, Inc. is a full-service engineering consulting firm capable of providing your Association with all of the above engineering services. Our construction administration team is very experienced as owner-representatives during Capital Projects, and we employ registered professional engineers and threshold inspectors alike.

#### **4 PHOTOGRAPHS**



*Photo 01 Ref: 2.1.1.1 – Old Post Pockets Causing Spalling On Slab Edges (Typcial)*



*Photo 02 Ref: 2.1.1.1 – Old Post Pockets Causing Cracks On Walkways (Typcial)*



*Photo 03 Ref: 2.1.1.1 – Old Post Pockets Causing Spalling Above Post Pockets (Typcial)*



*Photo 04 Ref: 2.1.1.1 – Old Post Pockets Causing Spalling and Cracks (Typcial)*



*Photo 05 Ref: 2.1.1.1 – Old Post Pockets Causing Spalling and Cracks (Typcial)*



*Photo 06 Ref: 2.1.1.1 – Old Post Pockets Causing Spalling and Cracks (Typcial)*



*Photo 07 Ref: 2.1.1.1 – Old Post Pockets Causing Spalling and Cracks (Typcial)*



*Photo 08 Ref: 2.1.1.1 – Old Post Pockets Causing Spalling and Cracks (Typcial)*





*Photo 09 Ref: 2.2.1.1 – Corroded Façade Supports*



*Photo 10 Ref: 2.2.2.1 – Debonded Tile With Damaged Grout (Typical)*



*Photo 11 Ref: 2.2.2.2 – Corroding Screen Enclosure Fasteners (Typical)*



*Photo 12 Ref: 2.2.3.1 – Rusting Steel Stair Support Brackets (Typical)*



*Photo 13 Ref: 2.2.3.2 – Stairway Cracks Along All Landing Slab Edges (Typical)*



*Photo 14 Ref: 2.2.3.3 – Stair EIFS Trapping Water (Typical)*



*Photo 15 Ref: 2.2.4.1 – Spalling in 4<sup>th</sup> Floor Storage Closet Floor*



*Photo 16 Ref: 2.2.4.1 – Spalling in 4<sup>th</sup> Floor Storage Closet Floor*



*Photo 17 Ref: 2.2.5.1 – EIFS Trapping Water (Typical)*