

CASTLE REEF CONDOMINIUM

4175 South Atlantic Avenue
New Smyrna Beach, Florida 32169

PHASE 1 MILESTONE INSPECTION REPORT

PROJECT NO. 24-1374



Prepared By:

UNITED ENGINEERING CONSULTANTS, INC

4240 South Ridgewood Avenue, Suite 4

Port Orange, Florida 32127

Christopher B. Longman, P.E., SI Ltd.

FL License No. 82452

June 21, 2024



UNITED ENGINEERING CONSULTANTS, INC.

- Building Condition Surveys
- Contract Administration
- Corrosion Control Design
- Structural Inspection & Design
- Project Planning & Management

June 21, 2024
Project No: 24-1374

Castle Reef Condominium Association
4175 South Atlantic Avenue
New Smyrna Beach, FL 32169

Attention: Ms. Mary Newberry, Community Association Manager
Condominium Board of Directors

Subject: **Phase 1 Milestone Inspection Report**
Castle Reef Condominium
4175 South Atlantic, New Smyrna Beach, Florida 32169

Dear Ms. Newberry and Ladies and Gentlemen of the Board of Directors,

United Engineering Consultants, Inc. (UEC) is pleased to submit this report following our structural condition inspection of the Castle Reef Condominium located in New Smyrna Beach, Florida. This study was performed in accordance with the state mandated Phase 1 Milestone Inspection (FS 553.899 - Mandatory structural inspections for condominium and cooperative buildings). This report includes our findings and recommendations.

I. EXECUTIVE SUMMARY

The building is in great structural condition. There was no significant structural deterioration identified on the building and a Phase 2 inspection is not recommended.

Very little structural deterioration was identified, which is impart to the Association recently completing a building repair project. A waterproofing program is in-place to protect the structure from the harsh environmental exposure.

II. STRUCTURAL DESCRIPTION

The Castle Reef Condominium is a 5-story building with direct oceanfront exposure to the Atlantic Ocean that was constructed in the 1970's. There are 164 condominium units and a manager's office. Each condominium unit has a private oceanfront balcony or ground floor patio. Open air walkways provide access to the condominium units. There are 9 open air stairwells and 4 elevator towers. Laundry and utility rooms are also located along the walkways.

A single level community room and maintenance shop is located at the ground floor adjacent to the 03 unit stack.

Original building plans were not available for review. From observation, the structure appears to be constructed of steel reinforced concrete slabs supported by load bearing masonry walls and at some locations exterior columns and beams. Exterior walls are constructed of CMU masonry with a stucco finish. The East facing window walls at the 01, 03, 018, 019, 031 and 033 stacks are constructed with light gauge metal framing with sheathing and a stucco finish.

The walkway slabs have a decorative cementitious finish applied over a waterproof polyurethane coating. The balcony slabs have a polyurethane waterproof coating. Aluminum guardrails are installed along the walkway and balcony slabs edges and provide fall protection. The rails are installed with surface mounted base plates and wall attachments. Many sliding glass doors and windows are updated; however, some original or outdated fenestrations remain.

The roof system is a flat roof with a single ply roof membrane installed to a concrete slab deck.

It is our understanding that the buildings underwent a significant structural restoration around 2007-2009 and additional restoration work in 2022-2023. During the most recent project, all walkway and balcony deck coatings were replaced.

III. INVESTIGATION METHODOLOGY

Representatives from United Engineering Consultants performed the field inspection on April 18 and 23, 2024. The survey was performed by a State of Florida registered Professional Engineers Christopher Longman, P.E. and Timothy J. Snook, P.E. The Phase 1 Milestone Inspection process included comprehensive visual observations of all accessible habitable and non-habitable areas, including the major structural components. The inspection at Castle Reef Condominium included all balconies, walkways, stairwells, unit interiors, mechanical and storage rooms. Entry to units was accompanied by a representative from the Association to access the interior of the units and balconies. Units 318, 229 and 105 were not accessible during our inspection. Many balcony closets were also not accessible during our inspection. The inspection focused on determining the general condition of the structure and identifying significant structural deterioration, which is defined as the following per the state statute:

“Significant structural deterioration” means substantial structural distress or substantial structural weakness 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 surface imperfections are a sign of substantial structural deterioration.

This study was not performed to evaluate the (original) structural design or code compliancy of the structure, but rather evaluate the condition of the existing elements. This study was focused on the building structure only and did not include a condition assessment of the windows and doors, roof system or mechanical, plumbing or electrical systems.

IV. SUMMARY OF MATERIAL FINDINGS

The following sections provide a comprehensive description of our findings and recommendations. Our observations are further depicted in the photographs in Appendix “A”.

Elevated Slabs: The elevated slabs were in excellent condition at both the interior and exterior areas. No spalling damage was identified on the interior surfaces of the units. Small surface concrete spalls from corrosion were identified at the balcony slabs of Units 522 and 304. Spalling damage on the topside of the slabs was identified inside the electrical rooms adjacent to the 06 unit stacks at Floors 5 and 2. Spalling damage on the ceiling of a utility room was identified near the 022 unit stack at Floor 5 and near the 014 stack on Floor 4.

Columns, Walls and Beams: No significant deterioration was observed on the load carrying walls and columns. The interior drywall exhibited no significant cracking. The exposed beams and walls at the balconies and walkways were in good condition, with little deterioration identified.

Small size surface concrete spalls from corrosion were identified at the balcony wall of Unit 503 and 303. A small size concrete spall on the walkways at a wall adjacent to Unit 531 was observed. Small size beam spalls were identified on the balcony of Unit 521 and the stairwell near the 07 stack on Floor 5.

Not all window sills were accessible for inspection from the exterior side based on the geometry of the building; however, from those areas that could be seen from the balconies, cracked concrete window sills were observed at Units 526, 427, 430, 210, 220 and 107.

Foundation: The foundation was not accessible for the inspection. No structurally significant cracking was observed at the ground floor walls and columns.

Waterproofing: The waterproof deck coating on the walkways and balconies is in great condition. Varying deterioration on the window and door perimeter sealants was observed.

The age and condition of the windows and sliding glass doors varied widely. The condition of the windows and sliding glass doors ranged from new to older with holes in the aluminum frames. Evidence of water intrusion was visible at a few of the unit interiors, but it could not be determined if the leaks were active.

Guardrails: The aluminum guardrails are exhibiting oxidation deterioration at the baseplate attachment to the slabs. All guardrails were secure and there were no missing fasteners identified, with the exception of Unit 530 which has a loose wall bracket.

V. CONCLUSIONS

We did not identify any evidence of substantial structural deterioration to any of the building components. Based on our findings, we are in the professional engineering opinion that the building is structurally sound and safe to occupy. A Phase II of the milestone inspection is not required.

The surface spalling damage identified should be repaired within the next 2 years as the damage can worsen and become more structurally significant.

VI. REPORT LIMITATIONS

The proposed study is limited to accessible areas. Hidden defects may exist that were not in accessible areas or were covered by stucco or other finishes. The Association understands and agrees that UEC is specifically not liable for the discovery of hidden defects. UEC also reserves the right to change our opinion should new information be brought to our attention.

VII. CLOSURE

Attached as enclosures are photographs of typical conditions observed (Appendix A). This report is property of United Engineering Consultants and was prepared for the exclusive use of the Condominium Board of Directors as an instrument reflecting the services provided as detailed in our

proposal. No other warranty is expressed or implied. The unauthorized use of this report for any purpose or by any third party is at the user's own risk.

Thank you for providing us the opportunity to work with you on this project.

Respectfully Submitted,
UNITED ENGINEERING CONSULTANTS, INC.



Christopher B. Longman, P.E., SI Ltd.
Project Engineer
Florida State License No. 82452



This item has been electronically signed and sealed by Christopher B. Longman using a digital signature and date. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

APPENDIX A

PHOTOGRAPHS



Photograph #1 – East elevation aerial photograph



Photograph #2 – West elevation aerial photograph



Photograph #3 - North elevation aerial photograph



Photograph #4 - South elevation aerial photograph



Photograph #5 – Roof layout aerial photograph



Photograph #5 – Typical walkway elevation (Southwest)



Photograph #6 – Typical balcony elevation



Photograph #7 – Typical East elevation



Photograph #8 – Typical walkway corridor



Photograph #9 – Typical stairwell



Photograph #10 – Typical roof layout



Photograph #11 – Typical roof layout

END OF REPORT