



SB 4-D Milestone Inspection Report

Royal St. Andrew Condominium

555 S. Gulfstream Avenue, Sarasota, Florida

Thornton Tomasetti

K21168.00

Prepared For

**Board of Directors
Royal St. Andrew Condominium Association, Inc
555 S. Gulfstream
Sarasota, FL 34236**

Prepared By

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July 5, 2023

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Board of Directors
Royal St. Andrew Condominium Association, Inc.
555 S. Gulfstream
Management Office
Sarasota, FL 34236

RE: PHASE 1 MILESTONE STRUCTURAL INTEGRITY ASSESSMENT

555 S. GULFSTREAM, SARASOTA, FLORIDA
TT Project No. K21168.00

Dear Board of Directors:

Thornton Tomasetti, Inc. (TT) was engaged by the Royal St. Andrew Condominium Association, Inc. (the Client) to provide professional engineering services for the purpose of completing a Phase 1 Milestone Inspection of the Royal St. Andrew Condominium (herein Condominium or Building), as required by the Florida Law SB 4-D.

TT's evaluation established that at the time of inspection (September 20, 2021), the building was safe for its current use. The following structural and safety items were observed and should be addressed promptly so that the building will remain safe for use.

- The concrete parking structure contains miscellaneous concrete spalling, and corroded rebar in some areas including the roof slab that need to be repaired to maintain the structure.
- Staining, cracking, and spalling is present on the balcony slab edges in for the mechanical spaces for each floor. Concrete restoration work is needed to maintain the structure.
- Unit balcony guardrails were observed that are less than 36 inches above the finished floor. The building has been instructed to lockout access to these balconies or install supplemental railings at 42 inches above the finished floor.

According to the Florida law SB 4-D, we are required to identify items of concern that warrant additional investigation, if any. TT recommends the additional testing and investigation listed below as part of a Phase 2 Milestone Assessment.

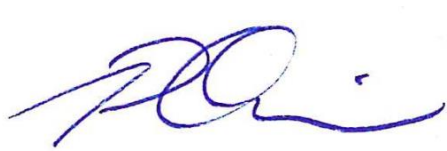
- Perform structural analysis of cantilever balcony to determine if it can safely support current dead load from finishes. *(Previously completed March 4, 2022 and determined to be acceptable)*

A Phase 1 Milestone report of observed structural deficiencies and notable conditions is enclosed. This report includes additional maintenance items not listed above. Full sized photographs in digital format are available upon request.

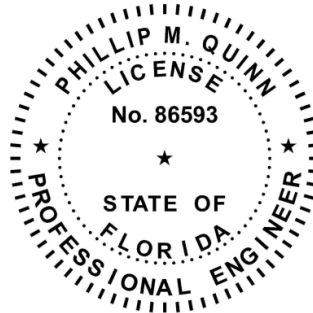
Should you have any questions or concerns please do not hesitate to reach out for additional information.

Respectfully Submitted,

THORNTON TOMASETTI, INC.



Phillip Quinn, P.E., S.I.
Senior Associate



This item has been digitally signed and sealed by Phillip M Quinn, PE. Printed copies of this item are not considered signed and sealed, the signature must be verified on any electronic copies.

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1.00 Introduction

Thornton Tomasetti, Inc. (TT) performed a site visit to review the condition of the building and ancillary structures on September 20, 2021 at the Royal St. Andrew Condominium in Sarasota, Florida (**Figure 1**). Prior to conducting the condition assessment, TT reviewed as-built architectural, structural, and plumbing drawings for the building dated January 1, 1968 as well as an existing condition report provided by Karins Engineering Group, dated October 8, 2018 (Karins Assessment).



Figure 1: Aerial view of the property (Source: Maxar Technologies, 2021)

1.1 Scope of Work

Pursuant to the requirements of Florida Law SB 4-D for the Phase 1 Milestone inspection of condominium buildings, the fundamental purpose of the required inspection and report is to confirm in reasonable manner that the building or structure under consideration is safe for continued use under the present occupancy. TT's scope of work consists of the following:

- Review pertinent documentation.
- Assess the extent and types of structural deficiencies at the Condominium through visual observation as required by Florida Law SB 4-D.
- Provide preliminary recommendations for conceptual repair or further investigation of observed deficiencies.
- Provide a preliminary opinion as to whether the Condominium is Structurally Safe.
- Prepare a written report summarizing TT's findings and recommendations. Observed structural deficiencies per Florida Law SB 4-D are listed in the enclosed cover letter and the body of this report. Additional observations and recommendations are included in the body of the report.

1.2 Building Description

The property consists of the condominium building adjacent to a standalone 2-story parking garage. The tower structure is a 15-story high-rise tower with reinforced concrete slabs supported by reinforced concrete beams and columns. Openings around the perimeter of the structure are infilled with concrete block and aluminum sliding glass doors and windows. Original balconies have been enclosed with the addition of windows and sliding glass door systems at the edge of slab. The exterior cladding of the structure is stucco with a mildly sanded finish. The main roof of the building consists of a flat reinforced concrete slab with a low-slope single ply roofing membrane. There is an elevator penthouse constructed above the roof slab along the east side of the structure.

The at-grade pool deck is located south of the tower. It consists of a pool, light-colored pavers, and landscaping concentrated around the edges, and is beyond the scope of this report. The parking garage structure consists of reinforced concrete slabs, beams, and columns.

The structural as-built drawings provided by management are dated January 1968. The building was most likely constructed under the 1965 Southern Standard Building Code. The structural drawings were created by William A. Snell, Consulting Engineer.

2.0 Documents Reviewed

The following documents were reviewed for the purposes of this inspection; not all documents may be included:

- Structural Drawings The Royal St Andrews by William A. Snell, Consulting Engineer, dated January 1, 1968.
- Architectural Drawings The Royal St Andrews by Vollmer and Draeger Architects, dated January 1, 1968.
- Existing Conditions Report by Karins Engineering Group, dated October 8, 2018

2.1 Basis of Inspection and Recommendations

The following codes, standards, city ordinances, and industry guidelines were used in this inspection and preparation of this report:

- Florida Law SB 4-D
- 2020 Florida Building Code – Existing Buildings, 7th Edition (*FBCE*)

3.0 Observations and Discussions

TT performed a walkthrough visual survey to visually observe exposed and readily accessible areas to review the condition of building structure on September 20, 2021. The visual observations were performed without the use of scaffolds, selective demolition or the removal of existing finishes

The survey areas included the parking garage, residential tower, roof, and the interiors of 24 units. A small unmanned aerial vehicle (drone) was also used to visually observe remote areas of the building.

Our assessment is based solely on visual observations made during our site visits. We did not perform any destructive or laboratory testing. TT did not observe signs of settlement/movement that would compromise the structural integrity of the building.

Building management provided access to all areas inspected including the building roof, parking garage and individual units (Table 1).

Table 1: List of inspected units

202	405	802	1004	1502
203	504	803	1101	1503
204	601	902	1203	1601
301	702	1002	1403	1602
302	704	1003	1404	

3.1 Parking Garage

General Observations

Our inspection included reviewing the slab, columns, and walls of the parking structure. TT observations and related recommendations for the concrete parking structure are summarized below.

- The concrete at the underside of the second-floor parking garage slab was observed to be spalling in multiple locations. **(Photo 1 – Photo 4)**
- TT observed failures of the waterproofing membrane at the top level of the parking garage. The waterproofing topcoat was missing in several locations where inter-layer bond failures occurred between the base and the topcoat. **(Photo 5)**

Recommendations

TT recommends that a concrete restoration project be performed on the parking garage to repair all concrete deterioration in accordance with the International Concrete Repair Institutes (ICRI) guidelines and Florida Building Code.



Photo 1: Overall View of Parking Garage

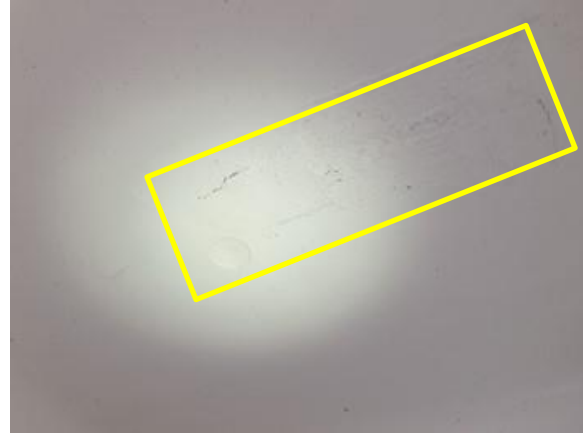


Photo 2: Concrete spalling at the Underside of the Slab.



Photo 3: Peeling paint between the slab ribs



Photo 4: Previous concrete repair to the exterior of the parking garage



Photo 5: Bond failure between base and topcoat

3.2 Mechanical Enclosure Areas

General Observations

The subject property had a painted exterior stucco building envelope with balconies at each level for the residential units and mechanical equipment.

- Bulging stucco was observed at the west face of the building in the area where air conditioner condenser units are housed. Additionally, the slab finish underneath the MEP units was observed to be deteriorated. **(Photo 6 – Photo 9)**
- TT observed tile finishes on enclosed balconies that were up to 3 inches in height. This condition was later analyzed and found to be acceptable for the original structural design.

Recommendations

TT recommends the following tests and repairs:

- Remove delaminated and bulging stucco to prevent fall hazards.
- Perform ICRI compliant concrete and stucco repairs.
- It is recommended to apply waterproof coating at AC condenser slab areas to protect concrete from further exposure to weather and spalling and to add drainage to allow water entering the area to be wept to the exterior. This work is elective.



Photo 6: Overall Photo of Exterior Showing Damaged Stucco

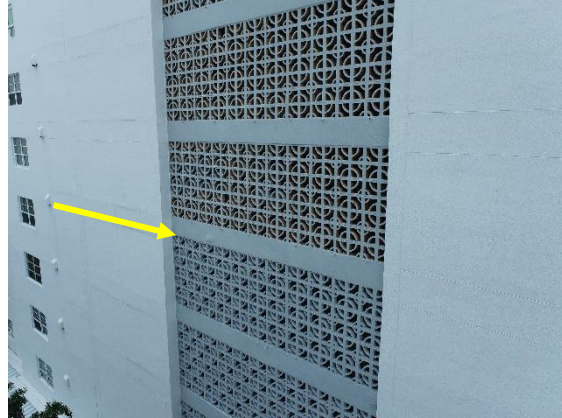


Photo 7: Overall Photo of Exterior Showing Damaged Stucco

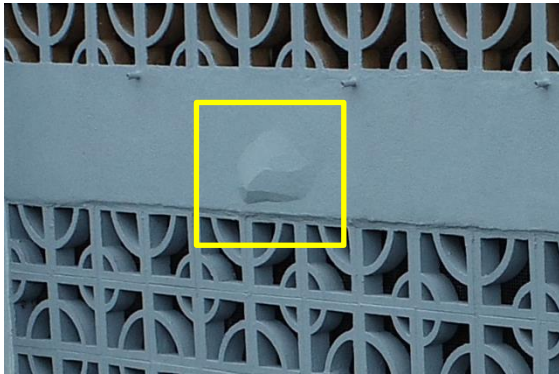


Photo 8: Bulging stucco adjacent to the MEP slab.



Photo 9: Condition of the slab under the MEP

3.3 Residential Unit Balconies

General Observations

Our inspection included visual review of the guardrails in the residential units. TT observations and related recommendations for the unit guardrails are summarized below.

- Units were observed in which balcony floor finishes had been built up to match the elevation of the interior spaces without modifications being made to the guardrails. This condition has decreased the railing height above the finish floor to less than 36 inches, which was the code requirement at the time of construction. **(Photo 10 – Photo 11)**

Recommendations

In the units where this condition exists, the Condominium Association should confirm that the AHJ has provided the stated variances to allow guardrail heights that do not meet current code requirements. If there are units that require guardrail modifications, TT recommends the following:

- As a temporary solution: Restrict access where guardrails are less than 36 inches above the finished floor surface. Lock off sliding glass doors to prevent occupants from opening them.
- Alternatively, install new railing sections to provide the 42-inch height above the finished floor. Railings to meet FBC required loads and geometry to bring the railing into code compliance.



Photo 10: Guard rail below code required height.



Photo 11: Guard rail below code required height

4.0 Limitations

To the best of TT's knowledge and ability, this report represents an accurate appraisal of the present condition of the building based upon evaluation of observed conditions. The following limitations also apply.

1. This report shall not be construed to warrant or guarantee the building and/or any of its components under any circumstances. TT shall not be responsible for latent or hidden defects that may exist, nor shall it be inferred that all defects have been either observed or recorded.
2. TT's visual observations include no specific knowledge of concealed construction or subsurface conditions at the subject property. Comments pertaining to concealed construction or subsurface conditions are professional opinion of TT based on relevant experience, judgment, and current standards of practice, however the actual concealed conditions at the subject property may vary from TT's expectations.
3. This report is based upon information obtained from visual observations of representative items made at the time of TT's site visit(s) and from TT's review of the information available at the time. TT's findings and conclusions are subject to change based upon the receipt of additional or updated information.
4. TT's professional services have been performed in accordance with the standards of skill and care generally exercised by other professional consultants acting under similar circumstances and conditions at the time the services were performed. TT's findings, conclusions and opinions are based on TT's review of the available documents, visual observations, professional experience, and sound investigation practices. No other warranty, expressed or implied, is made as to the findings presented in this report.
5. This report has been prepared by TT at the request of the Client strictly under the terms and conditions of our agreement and is exclusively for the Client's use in TT's evaluation of the subject property. This report is not intended for use by any third parties and no third party has any right to rely on any of the analysis or conclusion set forth herein. TT has no responsibility or liability to any third party for any loss or damage whatsoever arising out of the use of or reliance on this report by any third party.
6. TT's evaluation and report are intended to identify significant structural conditions only, to the extent that they can be visually observed from the portions of the building to which TT is granted access at the time of TT's observations. Client acknowledges that TT's services do not include identification of: (1) minor or isolated deterioration or normal wear and tear; (2) architectural issues including railings/fencing, roofing, waterproofing, or accessibility (ADA) compliance; (3) issues with building systems including HVAC, fire alarm/suppression, elevators, or access controls; or (4) issues with or missing seismic restraints of non-structural components.
7. It is expressly understood that TT shall have the right to rely on the accuracy and completeness of all information and documentation provided to us in connection with our scope of services hereunder and no verification services are included in TT's scope of services hereunder.
8. In providing this scope of service, it is expressly understood that TT will not review, and will have no responsibility for, any construction means, methods, techniques, sequences or procedures, or for any safety precautions and programs in connection with the services provided hereunder or at the site of the project in general and in connection with any construction or maintenance activities, or ongoing operations, at the Client's property.

END OF REPORT