

**Surf Rider Condominium**  
1441 S Ocean Blvd  
Pompano Beach, Florida 33062

**Milestone Inspection Report**

Prepared by Pistorino and Alam Consulting Engineers, Inc  
P&A File No. 22-295  
August 2<sup>nd</sup>, 2023

This report complies with Florida State Statute Section 553.899 Mandatory Structural Inspection.

This *Milestone Inspection Report* attests to the life safety and adequacy of the structural components, the general structural condition of the building and includes a determination of any necessary maintenance or replacement of any structural component.

The building structural components were inspected in June 2023. The drawings and conversion inspection report documents provided by management were reviewed and the individual load bearing components evaluated visually as prescribed in a Phase I evaluation. No substantial structural deterioration was observed, and therefore Phase II of the Milestone Inspection is not required.

As of the writing of this report the structural components as visually observed including the walls, columns, foundation, beams, and floors are in an approved condition. There are no unsafe or dangerous conditions that were observed. There is no substantial structural deterioration. The building structural elements appear to be structurally sound and do not pose a threat to the public health, safety, or welfare. Therefore, occupancy of the structure may be continued with respect to the public health, life safety, and welfare. The next Milestone report must be issued within ten (10) years of this report in conjunction with the structural integrity reserve study.

**General Building Description**

Surf Rider Resort is a three(3) story time-share condominium building surrounded with a parking lot along the North/South/East and West. The arrival/reception area is located on the ground floor at the East elevation. Based upon the Conversion Inspection Report dated February 17, 1982, the original structure was built in 1962. In 1981 the original structure was completely gutted, and new additional buildings were built. The foundation systems of the buildings consist of cast-in-place reinforced concrete footings, piles, and grade beam system.

The typical floor slab was specified as conventionally reinforced concrete slab supported by concrete/steel columns and concrete beams, which in turn are supported by the foundation system and footings.



*Surf Rider Condominium*

### **Maintenance Requirements and Recommendations**

Maintenance requirements for the concrete structure include repairs to any concrete or stucco which results in the future from normal aging of the building.

- Normal shrinkage cracks in the concrete should be sealed with a water proofing agent specified by an engineer.
- Painted stripping and directional arrows and signage to be serviced and kept visible.
- Reset or replace wheel-stops as necessary.
- Maintain illumination levels to comply with life safety codes.
- Repairs to any damaged concrete or stucco which results in the future from normal aging of the building and its direct exposure to the ocean.

### **Useful Life**

The life expectancy of the main building structure is estimated at 75 years or longer depending on the level of care and promptness addressing any concerns that may develop.

### **Replacement Costs**

The replacement cost of the structure will be based on its construction costs, which was determined to be \$8,000,000.00.

### **Observations**

Item e) of Section 8 of the mandatory structural inspection requirements includes recommendations for any remedial or preventative repair for any items that are damaged but are not considered as substantial structural deterioration. The following observations are recommended for remedial or preventative repair of damaged components.

## 2.1 - STUCCO CRACKS AND DELAMINATION

**Observation:** Accessible areas at the finished stucco surfaces were randomly selected for percussion sound testing with the aid of a steel instrument. The hollow sound, characteristically associated with delaminated surfaces, was audible at the referenced locations. This condition is an indicator that de-lamination of the stucco from the substrate has occurred. Cracks in the stucco were also observed at various wall locations at the building. The cracks will allow moisture penetration and cause delamination and further deterioration of the finish and substrate materials. Typical sample areas found with this defect are listed below:

- 1) Building Hallways - Delaminated stucco located adjacent to the entrance doors of Units 104, 106, 107, and 109 – Level 1.
- 2) Building Hallways - Delaminated stucco located at the beam adjacent to the A/C closet of the Unit 109 – Level 1.
- 3) Building Hallways – Delaminated stucco located at the beam adjacent to Unit 110 – Level 1.
- 4) Building Hallways - Delaminated stucco located at the beam adjacent to Unit 210 – Level 2.
- 5) Building Hallways - Delaminated stucco located at the exterior wall corner of Unit 204 – Level 2.
- 6) Building Hallways - For example, stucco crack located at the exterior wall adjacent to the door of Unit 104 – Level 1.
- 7) Exterior Elevations – Crack in stucco located at the South Elevation above the exterior wall of Unit 301, Level Roof.
- 8) Exterior Elevations – Crack in stucco located at the South Elevation adjacent to the exterior wall of Unit 117 – Level 1.
- 9) Exterior Elevations - Crack in stucco located on the West Elevation corner adjacent to the South Elevation.
- 10) Exterior Elevations – Crack in stucco located at the South Elevation wall corner near the pool deck.
- 11) Exterior Elevations – Cracks in stucco located at the artistic painting wall on the South Elevation near the pool deck.
- 12) Exterior Elevations – Crack in stucco located at a column adjacent to the exterior wall of Unit 210 – Level 2.



**Photograph No. IMG\_8527** – Delaminated stucco located at the beam adjacent to Unit 110 - Level 1- Building Hallways.



**Photograph No. IMG\_8610**– Delaminated stucco located at the beam adjacent to Unit 210 – Level 2 – Building Hallways.





**Photograph No. IMG\_8649** – Delaminated stucco located at the exterior wall corner of Unit 204 – Level 2 – Building Hallways.



**Photograph No. IMG\_8598** – Stucco crack located at the West Elevation wall corner adjacent to the South Elevation.



*Photograph No. IMG\_8770 – Stucco cracks located on the artistic painting wall on the South Elevation near the pool deck.*

**Recommendation:** Cracks and delaminated stucco on the exterior walls not only compromise the aesthetic presentation of the structure but will also compromise the water resistive barrier provided by the painted stucco. The cracks will become a portal for moisture ingress permitting moisture accumulations between the back plane of the stucco and the structural substrate. The cracked and delaminated stucco must be repaired to provide a water resistive barrier to the structure. Further investigation is necessary to establish the magnitude of the stucco deficiencies at the subject property.

All cracked and delaminated stucco areas should be sound tested with the aid of a steel instrument and all hollow sounding stucco areas must be removed and replaced with properly bonded stucco applied in strict conformance with the FBC and stucco manufacturer's recommendations.

Additionally, all cracks in the stucco must be rerouted in "V" groove shape, surface prepared and filled with an elastomeric sealant. The top surface of the repaired areas should be finished and painted to match adjacent areas.

## 2.2 - CRACKS AND DELAMINATION IN CONCRETE SLABS

**Observation:** Cracks, delamination, spalled concrete surfaces are present at hallway floor slabs, Residential Unit balconies/interior ceilings, and staircases. The hollow sound, characteristically associated with delaminated surfaces, was audible at the slabs in reference. Typical sample areas found with these defects are listed below:

- 1) Building Hallways - For example, cracks in the hallway floor slab between Unit 201 and Unit 202 at the 2<sup>nd</sup> level.
- 2) Building Hallways – For example, cracks in the hallway floor slab between Unit 204 and Unit 209 at the 2<sup>nd</sup> level.
- 3) Building Hallways – For example, cracks in the hallway floor slab between Unit 211 and Unit 212 at the 2<sup>nd</sup> level.
- 4) Building Hallways – For example, cracks in the hallway floor slab between Unit 215 and Unit 216 at the 2<sup>nd</sup> level.
- 5) Building Hallways – For example, crack in the hallway floor slab in front of the West Elevator at the 2<sup>nd</sup> level.
- 6) Building Hallways – For example, cracks in the hallway floor slab between Unit 306 and Unit 309 at the 3<sup>rd</sup> level.
- 7) Building Hallways – For example, cracks in the hallway floor slab in front of Unit 312 at the 3<sup>rd</sup> level.
- 8) Building Hallways – For example, cracks in the hallway floor slab between Unit 313 and Unit 316 at the 3<sup>rd</sup> level.
- 9) Building Hallways – For example, delaminated concrete at the stairs adjacent to Unit 110, 1<sup>st</sup> level.
- 10) Building Hallways – For example, delaminated concrete in the hallway floor slab in front of Unit 205 at the 2<sup>nd</sup> level.
- 11) Building Hallways – For example, delaminated concrete in the hallway floor slab in front of Unit 309 and Unit 315 at the 3<sup>rd</sup> level.
- 12) Units - For example, overhead crack at the interior living room ceiling of Unit 312 at 3<sup>rd</sup> level.
- 13) Units – For example, delaminated concrete at the balcony ceiling slab of Unit 105.
- 14) Units - For example, delaminated concrete at the balcony floor slab of Unit 201 at 2<sup>nd</sup> level.
- 15) Units – For example, delaminated concrete at the balcony floor slab of Unit 211 at 2<sup>nd</sup> level.

- 16) Units – For example, delaminated concrete at the balcony floor slab of Unit 302 at 3<sup>rd</sup> level.
- 17) Units – For example, delaminated concrete at the balcony floor slab of Unit 311 at 3<sup>rd</sup> level.
- 18) Units – For example, delaminated concrete at the balcony floor slab of Unit 312 at 3<sup>rd</sup> level.
- 19) Stairs - For example, delaminated concrete at the stairs adjacent to Unit 206 at steps 2, 4 & 9 between the 1<sup>st</sup> and 2<sup>nd</sup> levels.
- 20) Stairs - For example, delaminated concrete at the stairs adjacent to Unit 204 between the 1<sup>st</sup> and 2<sup>nd</sup> levels.
- 21) Stairs - For example, delaminated concrete at the landing between the 1<sup>st</sup> level & 2<sup>nd</sup> level of stairs adjacent to Unit 201.
- 22) Stairs - For example, delaminated concrete at the stairs adjacent to Unit 217 at steps 1, 3 & 4 between the 1<sup>st</sup> & 2<sup>nd</sup> levels.
- 23) Stairs - For example, delaminated concrete at the stairs adjacent to Unit 216 at steps 3, 4 & 7 between the 1<sup>st</sup> & 2<sup>nd</sup> levels.
- 24) Stairs - For example, crack in the stair landing at the stairs adjacent to Unit 217 between the 1<sup>st</sup> & 2<sup>nd</sup> levels.
- 25) Stairs - For example, crack in the floor slab of the stairs adjacent to Unit 216 at the landing between the 1<sup>st</sup> & 2<sup>nd</sup> levels.





**Photograph No. IMG\_8654**– Crack in hallway floor slab in front of Unit 201 at the 2<sup>nd</sup> level.



**Photograph No.IMG\_8708**– Crack in hallway floor slab in front of Unit 316 at the 3<sup>rd</sup> level.





**Photograph No. IMG\_8532** – Delaminated/spalled concrete at the underside of the staircase adjacent to Unit 110 at the 1<sup>st</sup> level.



**Photograph No.IMG\_8707**– Delaminated concrete at the hallway floor slab in front of Unit 315.



**Photograph No. IMG\_9075** – Delaminated concrete at balcony floor slab of Unit 302 at the 3<sup>rd</sup> level.



**Photograph No. IMG\_9030** – Overhead interior ceiling crack at the living room of Unit 312 on the 3<sup>rd</sup> level.

**Recommendation:** Existing cracks/delamination/spalls allow moisture penetration and will cause/continue corrosion of the reinforcing steel rebars. Moisture penetration may also cause mold and mildew in the interior of the building.

Continued moisture penetration into the reinforced concrete slab through these cracks will cause corrosion of the embedded reinforcing steel rebars resulting in spalling of the concrete and structural deterioration of the slab over time.

Structural cracks in reinforced concrete structures are typically repaired by utilizing epoxy pressure injection. Minor and non-structural cracks are repaired by utilizing elastomeric polyurethane sealants to prevent moisture intrusion into the concrete.

Delaminated concrete surfaces will compromise the concrete cover barrier provided to protect the steel reinforcement within. The delaminated concrete must be repaired in order to provide the adequate concrete cover necessary.

### **2.3 - EXPOSED REINFORCEMENT IN CONCRETE**

**Observation:** At a few locations the concrete members in the storage, meter, and pool rooms the protective concrete cover for the reinforcing steel has not been provided. Typical sample areas found with this defect are listed below:

- 1) Storage – For example, the storage room adjacent to Unit 204 has an exposed rebar at the ceiling slab.
- 2) Meter Room – For example, the meter room adjacent to Unit 106 has an exposed rebar at the ceiling slab.
- 3) Pool Room – For example, an exposed rebar at the pool room ceiling slab.
- 4) Residential Units – For example, exposed rebars at the A/C closet ceiling slab of Unit 104.





*Photograph No. IMG\_8751 – Exposed rebar at storage ceiling, located adjacent to Unit 204 at the 2<sup>nd</sup> level.*



*Photograph No. IMG\_8736 – Concrete spalling/exposed rebar at the ceiling slab of the Pool Room.*

**Recommendation:** Ferrous items, for example reinforcing steel, will begin rusting when exposed to aggressive atmospheric conditions. Rust is a byproduct formed by the reaction of iron with oxygen in the presence of water or moisture in the air. As rust development progresses, it expands against the surrounding concrete resulting in propagation of the cracks along the embedded ferrous material. This is a dynamic process that permits the acceleration of this reaction and results in a reduction of the durability of the concrete.

The reduction of the concrete cover in a moisture rich environment can create a potential for damage to the reinforcing steel of the slab, premature deterioration of the structure, and expensive structural repairs in the future. At locations where rebars have already been corroded perform repairs in accordance with the following procedure:

- 1) Chip-off damaged and loose concrete at the spalled concrete areas to expose corroded reinforcing steel rebars. Chip concrete to the limits of the steel corrosion. Chip concrete in a manner to provide vertical surface, not inclined, in compliance with standards recommended by ICRI.
- 2) Clean the corroded rebars to a shiny silver surface by sandblasting or using powered steel brush.
- 3) If steel rebars have lost more than 15% of the cross-sectional area, then install new sister rebar of same diameter to compensate for the deteriorated and lost cross-sectional area of the corroded rebar. Splice with the corroded rebar. Provide a minimum of 40 bar diameter lap length on each side.
- 4) Coat the steel and concrete with anti-corrosive bonding agent for example, Sika Armatec-110.
- 5) Patch chipped concrete areas with non-shrink repair mortar suitable for overhead and vertical application for example, SikaTop 123 plus or equivalent and for horizontal surface with SikaTop 122 plus or approved equal.
- 6) Finish to match adjacent areas.

Repairs must be performed with a repair protocol approved by the Engineer of Record.



## 2.4 – CORROSION STAINS IN CONCRETE

**Observation:** Corrosion stains and ferrous materials, for example, form accessories, nails were observed corroding at several locations. These ferrous items will continue corroding, as exhibited by iron oxide staining of the concrete, and result in the subsequent spalling of concrete. Without remediation, this condition will progress with the passage of time. Typical sample areas found with this defect are listed below:

- 1) Exterior Elevations- For example, on the exterior window of the Administration Office, East Elevation.
- 2) Exterior Elevation- For example, on the exterior window of Unit 102, East Elevation.
- 3) Exterior Elevation- For example, on the exterior elevator case at West Elevation.
- 4) Building Hallways- For example, the stairs adjacent to Unit 303 which has an adjacent column with a corrosion stain.
- 5) Building Hallways- For example, the beam adjacent to the stairs that are near Unit 303, 3<sup>rd</sup> level.
- 6) Building Hallways- For example, on the exterior window of Unit 217, South Elevation.
- 7) Building Hallways- For example, the stairs adjacent to Unit 110 which has an adjacent column with a corrosion stain.
- 8) Building Hallways- For example, below the staircase that is adjacent to Unit 103, 1<sup>st</sup> level.
- 9) Building Hallways- For example, at the staircase near Unit 316, 3<sup>rd</sup> level.



*Photograph No. IMG\_8579– Corrosion stain at the exterior window sill of the Administration Office, East Elevation.*



*Photograph No. IMG\_8670– Corrosion stains at the column adjacent to the stairs near Unit 303, 3<sup>rd</sup> level.*



*Photograph No. IMG\_8568– Corrosion stain below the staircase that is adjacent to Unit 103.*

**Recommendation:** All deleterious materials in the concrete must be remediated in the following manner:

- a) Chip-off concrete adjacent to the exposed metal, approximately  $\frac{3}{4}$  inches around the metal and to the limit of corrosion in the metal, minimum 2 inches in depth.
- b) Cut the metal to approximately 1-1/2 inches from the surface to provide a minimum of 1-1/2-inch concrete cover.
- c) Coat the concrete with anti-corrosive bonding agent for example, Sika Armatec 110.
- d) Patch the chipped off area with non-shrink remediation mortar for example, SikaTop 122 plus in a manner that a minimum of 1-1/2-inch concrete is present over the metal.

## 2.5 - CORROSION OF METAL COMPONENTS

**Observation:** Corrosion of metal members, supports, fasteners, etc. of structures was observed. At some areas the corrosion of different elements is more advanced than others. Typical sample areas found with this defect are listed below:

- 1) Building Roof – For example, gas pipe metallic supports are corroded at the East wing of the building.
- 2) Building Roof – For example, corroded metallic components of the A/C equipment in different locations of the building roof.
- 3) Building Hallways – For example, corroded metallic screws and bolts in railings in 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> level.



*Photograph No. IMG\_8469 – Gas pipe metallic supports are corroded at the East wing - Building Roof.*





*Photograph No. IMG\_8478– Corroded metallic components of the A/C equipment - Building Roof.*



*Photograph No. IMG\_8828– Corroded screws and bolts at the staircase railings adjacent to Unit 211 – Level 2.*





*Photograph No. IMG\_8641– Corroded metallic screws and bolts at the staircase railing adjacent to Unit 207.*

**Recommendation:** If not remediated the materials will deteriorate, compromising their structural integrity and functioning ability. Severely corroded elements must be removed and replaced with new ones. Elements with minor corrosion are to be remediated as follows:

- 1) Clean all corroded metal items by suitable means to bare silver metal surface and coat with oil-based primer and two coats of oil or epoxy-based paint.

## 2.6 WATER INTRUSION

**Observation:** There is evidence of water intrusion located at a few locations of the building. Typical sample areas found with this defect are listed below:

- 1) Exterior Elevation – For example, signs of water infiltration at the ceiling slab over the Administration Office exterior window – East Elevation.

- 2) Residential Units – For example, signs of water infiltration at windows of Residential Units 107, 203, 302, 306 & 312.
- 3) Residential Units – For example, signs of water intrusion in ceiling slab of Unit 313.



***Photograph No. IMG\_ 8576– Signs of water infiltration at the ceiling slab over the exterior window of the Administration Office – East Elevation.***



*Photograph No. IMG\_ 9035– Signs of water infiltration at the interior window in Unit 312- Level 3.*

**Recommendation:** Water leaks below the roof shows that the roofing system at the structural slab is not working as intended and sealant around the exterior side of the windows have failed. Repairs to the roofing system and window sealants are required along with water testing.

## 2.7 RAILING POSTS

**Observation:** At hallways, stairs & residential units railing post grout pockets are observed to be cracked and/or have recessed post pockets with loose railings. The cracks/depression can collect water providing a moisture rich environment that can create a potential for damage to the reinforcing steel of the concrete, premature deterioration of the structure, and expensive structural remediations in the future. Broken and deteriorating grout results in a reduction of the load resisting capacity of the railing system and creates hazardous conditions for the life and safety of the residents. Typical sample areas found with this defect are listed below:

- 1) Building Hallways – For example, recessed hallway railing post grout pocket in front of Unit 105.

- 2) Building Hallways – For example, stair railing post pocket with cracks adjacent to Unit 201.
- 3) Building Hallways – For example, loose hallway railing in front of Unit 207.
- 4) Building Hallways – For example, loose hallway railing in front of Unit 214.
- 5) Building Hallways – For example, loose hallway railing in front of Unit 305.
- 6) Building Hallways – For example, loose hallway railing adjacent to West Elevator, 3<sup>rd</sup> level.
- 7) Residential Units – For example, balcony railing post pocket with cracks in Unit 201, 2<sup>nd</sup> level.
- 8) Residential Units – For example, balcony railing post pocket with cracks in Unit 302, 3<sup>rd</sup> level.
- 9) Residential Units – For example, balcony railing post pocket with cracks in Unit 311, 3<sup>rd</sup> level.



**Photograph No. IMG\_8560**– Depressed railing post pocket in front of Unit 105  
-Level 1.





*Photograph No. IMG\_8660– Cracks in railing post pocket in landing of stairs adjacent to Unit 201.*



*Photograph No. IMG\_9041– Cracks in balcony railing post pocket of Unit 311 – Level 3.*

## 2.8 ROOF SYSTEM



**Observation:** Evidence of water ponding was observed at several areas of the Building Roof due to improper surface drainage. Particle sediments were observed particularly adjacent or under mechanical equipment, which suggests prolonged water ponding beyond the allowable 48 hours. In addition, sections of the roof were observed with air or water bubbles under the membrane, particularly under the walking pads suggesting water/moisture intrusion into the roofing system.

- 1) Building Roof- For example, water is observed ponding below the A/C equipment at the North wing of the building.
- 2) Building Roof- For example, water is observed ponding below the A/C equipment at the South wing of the building.
- 3) Building Roof- For example, air/water blisters are observed below the membrane located in the North wing of the building.
- 4) Building Roof- For example, signs of water ponding at the West wing of the building.



*Photograph No. IMG\_8511 – Signs of water ponding below the A/C equipment at the South wing of the building roof.*



*Photograph No. IMG\_8516 – Air/water blisters under the building roofing membrane located at the Southwest wing of the building roof.*



*Photograph No. IMG\_8503 – Signs of water ponding located at Southwest wing of the building roof.*

**Recommendations:** Provide positive slope to drains or scuppers to eliminate water ponding beyond the 48 hours allowable. Repair or replace any portion of damaged roofing system.



## 2.9 - CRACKS IN CONCRETE CURBS

**Observation:** Numerous cracks are present at the concrete curbs at exterior areas of the buildings parking lot/driveway areas. Typical sample areas found with this defect are listed below:

- 1) Ground floor - For example, cracks in the concrete curb located adjacent to the planter in front of the main entrance of the building – East side of the Building.
- 2) Ground floor - For example, cracks in the concrete curb located in front of Unit 101 - East side of the Building.



*Photograph No. IMG\_20230612-100939– Cracks in the concrete curb located adjacent to the planter in front of the main entrance of the building.*



*Photograph No. IMG\_20230612-101541– Multiple cracks/debonded concrete in the concrete curb in front of Unit 101 – East side of the building.*

**Recommendations:** Existing cracks allow moisture penetration and will cause corrosion of the reinforcing steel rebars. Minor and non-structural cracks are repaired by utilizing elastomeric polyurethane sealants to prevent moisture intrusion into the concrete.

## 2.10 – MISSING/LOOSE EXTERIOR VERTICAL WALL STONE FINISHES

**Observation:** Missing/Loose stone finishes at the vertical walls at the North, East, and South elevations of the building. The hollow sound, characteristically associated with loose surfaces, was audible at the stone finishes in reference. Typical sample areas found with this defect are listed below:

- 1) Exterior Elevation: For example, loose stone finishes at the North Elevation adjacent to the stairs at Level 1.



- 2) Exterior Elevation: For example, missing stone finishes at the East Elevation adjacent to the Administration office window at Level 1.
- 3) Exterior Elevation: For example, loose stone finishes at the South Elevation adjacent to Unit 101 at Level 1.



*Photograph No. IMG\_8573– Missing stone finishes adjacent to the Administration office window, East Elevation – Level 1.*



*Photograph No. IMG\_8580– Missing stone finishes adjacent to Unit 102, East Elevation – Level 1.*

## 2.11 – MISSING POOL FINISHING

**Observation:** Missing pool finishing were observed at a few locations within the Pool. The Pool is on grade, however, missing finishes will allow water intrusion into the concrete substrate and will cause corrosion of the reinforcing steel rebars. Typical sample areas found with this defect are listed below:

- 1) Pool - For example, missing finishes at West side of the Pool near the artistic painting wall.
- 2) Pool - For example, missing finishes at South side of the Pool near the white fence.
- 3) Pool - For example, missing finishes at North side of the Pool near the pool stairs.



*Photograph No. IMG\_8776– Missing finishes at South side of the Pool near the white fence.*



*Photograph No. IMG\_8777– Missing finishes at North side of the Pool near the pool stairs.*

**SUFFICIENCY**

As a routine matter, in order to avoid any possible misunderstanding, nothing in this report should be considered directly or indirectly as a guarantee for any portion of the structures. The estimated useful life remaining of all items in this report is based upon anticipated proper maintenance.

In accordance with Florida Statutes, Section 553.899, this report was prepared by architects and engineers authorized to practice in the State of Florida on the date of this report, based on inspections undertaken at various times during the month of June 2023.

Prepared and submitted by:  
**Pistorino & Alam Consulting Engineers, Inc.**

