

April 12, 2023

Les Falls Condominium Association
c/o John Zimmerman, Vice President
870 S Collier Blvd
Marco Island, FL 34145



Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

Dear Mr. Zimmerman,

As requested, on March 23rd and 24th, SSEC performed a Phase 1 Milestone inspection at Les Falls Condominium is a 10 Floor Condominium (including ground level and roof main level) located in Marco Island, Florida. According to county property records the condominium was constructed in 1990 making the structure approximately 33 years old. According to the original drawings the structure is concrete framed with mild steel reinforced concrete elevate decks and a combination of masonry and framed exterior walls. The condominium units are accessed via exterior cantilevered catwalks (an extension of the elevated reinforced concrete decks). The condominium units have a combination of large and small balconies. The condominium also has a large glass block feature at the roof level, a porte-cochere at the ground level, and an exterior parking garage with roof tennis court.

According to Florida Statute 553.899 Section 7a, the phase 1 inspection requires,

“a licensed architect or engineer to practice in this state shall perform a visual examination of habitable and non-habitable areas of a building, including the major structural components of a building, and provide a qualitative assessment of the structural conditions of the building components under visual examination. If the architect or engineer finds no signs of substantial structural deterioration to any building components under visual examination, phase two of the inspection, as provided in paragraph (b), is not required. An architect or engineer who completes a phase one milestone inspection shall prepare and submit an inspection report pursuant to subsection (8).”

SSEC accessed and performed a visual and limited acoustic inspection the following areas of the building:

- Residential units 101, 103, 104, 105, 106, 202, 301, 305, 306, 402, 403, 404, 501, 505, 506, 602, 603, 604, 605, 606, 701, PHB, PHC, PHD
- Cabana units 1, 2, 6, and 9
- Common area elements including mechanical rooms, ground level unit storage areas, catwalks, card/gym room, managers office, garage, tennis court, porte-cochere, the north and south egress stairs, the main building roof, roof top elevator room, and roof top space behind the glass enclosure.

The following areas were excluded from the investigation:

- Foundations and Pilings – Due to concealed nature of the structure
- Balance of cabana and residential units not listed above
- Exterior building walls requiring scaffolding to assess (visually observed from the ground level)
- Pool and Pool Mechanical
- Elevators and Ground Floor Arched Glass Roof Enclosures

Shoreline Structural Engineering and Consulting
15740 67th Ct. N.
Loxahatchee, FL 33470

Building history

It is SSEC understanding of the following projects, based off building knowledge (no documentation was provided to SSEC for review):

- The roof was replaced in approximately 2017 and is rated for 15 years.
- The building underwent a complete repaint in 2022.
- The Glass Façade feature was restored in approximately 2016.

SSEC has requested documents from the local municipality and will update the above accordingly.

Field Review Findings

Residential Units

Interiors: The residential unit interiors were all finished in drywall, as such visual examination of the concealed structural elements was not observable. Corrosion of drywall corner bead adjacent to sliding glass doors was observed at several units (202 and 306) with older sliding glass doors.



Figure 1: Cornerbead corrosion adjacent to original sliding glass doors at unit 306

Balconies: Of the 24 units accessed, 23 of the units were tiled or of cementitious finish (waterproofing concealed) and 1 unit was waterproofed (tile to be installed). It is SSEC understanding that when a unit owner replaces the tile, the building will waterproof the balcony deck prior to new tile placement. It is also SSEC understanding that the building will review the balcony deck for spalling after the tile and thin set is removed and prior to application of waterproofing. Balconies appear to be positively pitched away from building and draining over the edge under the aluminum railing. Through acoustic sounding tile delamination was identified at several units, stucco delamination at column was identified at numerous units, and minimal soffit deterioration was observed limited to “rust spots” only.

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

The balcony guards at all large balconies were a combination of aluminum railing and concrete knee walls. The guards at all small balconies (Juliet) were concrete knee walls only. No deficiencies were observed at the concrete knee walls. The aluminum railings had varying degrees of deterioration. A section of aluminum railing at each of units 103 and 104, had significant deflections when a load was applied to the top horizontal railing, **building management immediately placed caution tape at these railings**. The balance of the aluminum railings at balconies varied in condition. All aluminum railings appear to meet the 42" height requirement of current code but do not meet the 4" sphere requirement.



Figure 2: Balcony railing significantly deflecting when loaded at unit 103



Figure 3: Balcony railing post corrosion at unit 104

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

Units had varying configurations of original sliding glass doors, newer sliding glass doors, impact resistant sliding glass doors, accordion shutters attached to the building walls, accordion shutters installed at the balcony edges, and electric shutters. The stucco to metal sealants at windows was recently replaced. Older doors and shutters show signs of corroded fasteners.



Figure 4: Typical corroded sliding glass door fastener (unit 202)

In addition, the balconies were visually inspected from the ground level with minor edge spalling noted.



Figure 5: 203 concrete spall at slab edge coinciding with post pocket (typical)

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

Cabana Units

SSEC inspected a limited number of cabanas. Corroding reinforcing bar was identified at the entrance of unit 9 (Figure 1 following page). The interior of the cabanas was not finished in drywall, as such visible and limited acoustic inspection of the structural elements was available with no deficiencies noted.



Figure 6: Reinforced concrete repair at entrance of Cabana 9

Common area elements

Mechanical Rooms: Ground floor mechanical rooms (maintenance area, north trash room, north meter room) were accessed. The interior of these areas was not finished in drywall, as such visible an limited acoustic inspection of the structural elements was available with no deficiencies noted.

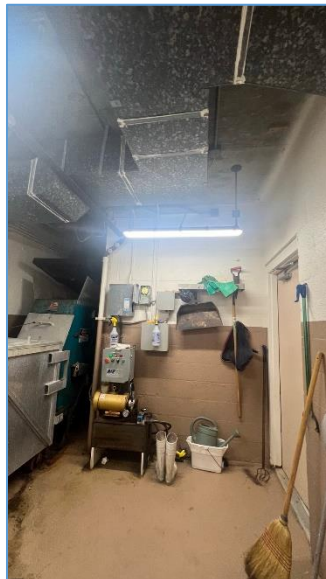


Figure 7: Typical unfinished mechanical room (North trash room)

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

Ground level unit storage areas: Ground level unit storage areas at the north and south side of the building were accessed. The interior of these areas was not finished in drywall, however due to the amount of personal items in these areas and locked gates, SSEC was only able to perform a limited visible inspection of the load bearing columns. No deficiencies were noted.

Catwalks: Exterior catwalks allow access to the individual units. The catwalks are constructed of elevated concrete decks using mild steel reinforcement. The exterior catwalks primarily use aluminum gaurds of the same type as noted on the balconies. The exterior catwalk gaurds appeared to be in good condition. The exterior catwalks were visually inspected by SSEC and no structural deficiencies were noted. A single Juliet balcony is located at each floor to the east of the elevators. These balconies are not accessible. No visual deficiencies were noted at these Juliet balconies.



Figure 8: Exterior catwalks and Non-Accessible Juliet Balconies

Card/Gym Rooms: The card/gym room interiors were all finished in drywall, as such visual examination of the concealed structural elements was not observable.



Figure 9: Card room interior finishes preventing visual examination of structural elements

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

Manager's Office: The manager's office interior was finished in drywall, as such visual examination of the concealed structural elements was not observable.

Garage: The garage is not attached to the main structure, as such this element is not directly related to the intent of the Phase 1 Milestone, however, SSEC performed a limited acoustic and visual survey of the garage structure. The garage is single story covered structure, with asphalt on grade, reinforced circular columns, precast joists spanning and bearing on precast beams. Minor structural deficiencies were noted throughout the garage with respect to cracks in beams and spalling at columns (acoustic only, not bulging). The west circular columns appear to be clad in a wire lath stucco to aesthetically match the abutting planters. The stucco is delaminating and a visual examination of the structural column within was not observable. Planter waterproofing condition was not observable due to plant infill material.



Figure 10: Planter and square column cover to be investigated at west side of garage

Tennis Court: The tennis court is located on top of the garage and therefore acts as the roof of the garage. The tennis court has perimeter scuppers to allow draining of water. The perimeter scuppers appear to be functioning due to no evidence of ponding water (stains). Some perimeter scuppers are blocked with debris. The perimeter chain link fence acts as the guard for the structure. The connection of the chain link fence posts with the concrete knee wall was exhibiting corrosion throughout. Two sets of stairs at the north and south of the porte-cochere allow access to the tennis court from the grade level. Both sets of stairs were acoustically sounded and deterioration of concrete was noted through this sounding. Expansion joints separate the stairs from the tennis court and are concealed by aluminum cover plates attached to both the tennis court and top stair landing, with one side in a slotted hole to allow for movement.



Figure 11: Tennis Court



Figure 12: Tennis court scupper blocked debris



Figure 13: Tennis court chainlink post typical corrosion

Porte-cochere: The porte-cochere is not attached to the main structure, as such this element is not directly related to the intent of the Phase 1 Milestone, however, SSEC performed a limited acoustic and visual survey of the porte-cochere structure. The porte-cochere was originally intended to be a planter. At some point in the buildings life, ownership decide to remove the plant material, waterproof the planters, and leave them open (without infill). Minor structural deficiencies were noted throughout the porte-cochere slab with respect spalling of the deck (acoustic only, not visual). A large awning with steel framing is attached at the center of the porte-cochere and was visually observed with no structural deficiencies noted.



Figure 14: Porte-cochere

North Egress Stairs: The north egress stair was accessed through all floors. No structural deficiencies were noted in this stairwell. Minor non-structural deficiencies were noted such as missing pipe floor clamps and a light out at the top of the stair tower.

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

South Egress Stairs: The south egress stair was accessed through all floors. No structural deficiencies were noted in this stairwell. Minor non-structural deficiencies were noted such as missing pipe floor clamps and a light out at floor 6 landing.



Figure 15: Pipe stand clamp missing (typical condition)

Main building roof: The main building roof was accessed. The building roof appears to be in good condition with no ponding water or soft spots noted. The drains and scuppers appear to be functioning to allow water to drain from the roof. The perimeter counter flashing at the kneewalls is continuous and not corroded. The stucco above the flashing at the parapet appeared to be delaminating through acoustic sounding. Lightning protection was noted at the perimeter parapet. Window washing hook bases (appear to accept a plate with a D-ring) were observed at the roof level but no anchor load testing chart was on-site. Individual unit air conditioners were located on the roof, airconditioner bases appear to be in good condition. Penetrations throughout the roof appear to be in good condition (skylights, disconnect conduit, and vents). According to the building, no leaks are observed in the penthouse units below.



Figure 16: Main building roof

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL



Figure 17: Typical roof anchor system

Rooftop Elevator Room: The roof top elevator room was accessed. The interior of this area was not finished in drywall, as such visible and limited acoustic inspection of the structural elements was available. Efflorescence through cracks at the ceiling was noted. The ceiling is the concrete underside of the barrel shaped concrete roof deck above. The topside of this roof is finished in stucco and paint. Upon visual examination, from the main roof below, the paint at the top side appears to be fully adhered. The elevator equipment was all replaced within the last year.



Figure 18: Rooftop elevator ceiling efflorescence to be removed and monitored

Rooftop space behind glass enclosure: The space behind the glass enclosure was accessed. The interior of this area was not finished in drywall, as such visible an limited acoustic inspection of the structural elements was available with no deficiencies noted. No moisture intrusion was observed in this area.



Figure 19: Rooftop glass enclosure

Recommendations:

Residential Units

Interiors: As these areas are renovated, concealed structural elements should be inspected for spalls and deterioration. Since this area is concealed from the elements, no deterioration is expected. Original sliding glass doors should be replaced when feasible and masonry openings properly waterproofed as part of the replacement.

Balconies: The balance of the units not inspected by SSEC, should be inspected for significant deflected rail conditions as identified in units 103 and 104. **Any rails with significant rail deflections should be remedied in the next 180 days. Balconies with significant rail deflections should not be accessed by residents until the condition is corrected.** This will require a structural engineer to prepare repair details to correct the corroded rail base connections and repair associated concrete edges. The engineer will need to confirm with the local municipality that this will be sufficient for their requirements as some municipalities require replacement railings instead, which would change the aesthetic of the building due to the 4" sphere requirement.

All railings should be assessed and a scope of work prepared for the same repair in the next 2 years to specific rail sections requiring repair.

Delaminated stucco at columns and rust spots at ceilings should be repaired in the next building paint cycle scheduled for 2029.

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

Cabana Units

Corroding reinforcement identified at the entrance of cabana unit 9 should be remediated in the next 180 days.

Common area elements

Mechanical Rooms: No recommendations at this time.

Ground level unit storage areas: As storage areas are emptied, structural columns should be inspected for spalls and deterioration. Since this area is concealed from the elements, no deterioration is expected.

Catwalks: No recommendations at this time.

Card/Gym Rooms: As these areas are renovated, concealed structural elements should be inspected for spalls and deterioration. Since this area is concealed from the elements, no deterioration is expected.

Manager's Office: As this area is renovated, concealed structural elements should be inspected for spalls and deterioration. Since this area is concealed from the elements, no deterioration is expected.

Garage: SSEC recommends an investigation of the existing waterproofing at the planters and condition of the concealed structural columns adjoining the planters. This will require removal of plant infill and wire lathe stucco cladding the columns to inspect. A single planter should be sufficient for this investigation and a scope of work for all planters can be prepared by a structural engineer and implemented by a general contractor experienced in waterproofing and concrete restoration. SSEC would recommend remediating column spalls noted throughout the garage as part of this work. SSEC recommends that this investigation take place in the next 180 days to properly evaluate the conditions and determine a timeline for garage restoration which would include spalling columns noted in the remaining portion of the structure.

Tennis Court: SSEC recommends that the perimeter chain link fence post bases be properly repaired in the next 180 days since they act as guards for the structure. Scuppers at the perimeter should be cleared of debris on a monthly basis (to be adjusted once maintenance, is familiar with seasonal frequency requirements). The spalling at the associated stairs can be incorporated into a garage restoration referenced above.

Porte-cochere: SSEC recommends performing a water test of the planters (plug drains to hold 2" of water for 24 hours) to make sure no leaks are occurring. If the water level is diminishing, then the waterproofing at the planter should be replaced as part of the garage restoration referenced above.

North Egress Stairs: No recommendations at this time.

South Egress Stairs: Replace missing pipe floor clamps and burnt out bulbs.

Main building roof: Perform a roof moisture survey when the building becomes 10 years of age to determine if it has exceed 25% roof moisture levels permissible by the Florida Building Code. When the roof is replaced, parapet stucco replacement and counterflashing should be incorporated into the scope of work. Test the anchors to ensure they meet the OSHA 1910.27 5,000 pound anchor requirement at 10 year intervals.

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

Rooftop Elevator Room: The efflorescence noted at the ceiling may be prior to the recent paint restoration. SSEC recommends removing the efflorescence at the underside and monitoring to see if it returns. In the event the efflorescence returns, the cracks should be properly repaired, an appropriate highbuild paint applied to the top side of the structure.

Rooftop space behind glass enclosure: No recommendations at this time.

Conclusion:

To the best of my knowledge, belief, and professional judgement the Les Falls condominium is safe for continued occupancy and use provided there is limited access to balconies experiencing significant rail deflections.

SSEC does not recommend performing a Phase 2 milestone investigation involving destructive testing or structural analysis of main structural building members.

SSEC recommends performing the following investigations, repairs, and associated time frames:

1. Assessing remainder of balconies to determine which railings have significant deflections and repair same (such as unit 103/104) - 180 days
2. Assessing all balcony railings to prepare a specific scope of work and repair – 2 years
3. Investigation of the garage west side planters and abutting columns – 180 days
4. Repair of garage structural elements – To be determined (TBD) based off west side planter and abutting column investigation.
5. Repair of chain-link fence post bases at tennis court – 180 days
6. Repair of concrete at north/south tennis court stairs – TBD based off west side planter and abutting column investigation.
7. Perform a water test at the porte-cochere planters to determine if the waterproofing is intact, if water test fails incorporate replacement into garage restoration – 180 days for testing, TBD repair of same if necessary incorporate into garage restoration
8. Replace missing pipe floor clamps and burnt out bulbs at egress stair towers – 180 days
9. Test the roof top anchors to ensure the meet OSHA 1910.27 5,000 pound anchor requirement – 180 days or prior to next use
10. Removal of efflorescence and monitoring for return of efflorescence at ceiling of rooftop elevator room – 180 days

It is SSEC understanding that individual unit owners are responsible for maintaining and replacement of windows, doors, and shutters. SSEC recommends that these elements be continued to be maintained including semi annual cleaning and replacement of deteriorating sealants, gaskets, and fasteners.

Budget:

SSEC has prepared the following engineer's probable cost estimate for the above referenced projects:

Item	Description	Engineering Cost	Construction Cost	Total Cost	Notes
1	Significant Rail Deflections	\$ 3,500	\$ 10,000	\$ 13,500	repair of existing rails only
2	Balance of Rails and Repair Project	\$ 10,000	\$ 120,000	\$130,000	assumes repair of existing rails only
3	Investigation of garage west side planters	\$ 1,200	\$ 2,500	\$ 3,700	investigation of single planter/column only
4	Garage Restoration	\$ 8,000	\$ 80,000	\$ 88,000	concrete restoration only, planters not included
5	Repair of chain-link fence post bases	\$ 1,500	\$ 8,000	\$ 9,500	estimate 20 post bases, survey needed of each post base to confirm quantity and repair detail
6	Repair of concrete at north/south tennis court stair	\$ 1,500	\$ 2,000	\$ 3,500	
7	Replacement of portocochere planter waterproofing and concrete repairs	\$ 2,500	\$ 16,000	\$ 18,500	assumes failed water test
8	Egress stair repairs	\$ -	\$ 800	\$ 800	
9	Testing rooftop anchors to OSHA 1910.27	\$ 2,500	\$ -	\$ 2,500	assumes anchors pass and no strengthening needed
10	Rooftop mechanical efflorescence removal	\$ -	\$ 800	\$ 800	assumes no return of efflorescence and subsequent repairs/painting
			Total	\$270,800	

The above engineer's probable cost estimate is based off in-field findings SSEC observed to date. The balance of the units have not been inspected and no scope of work has been defined nor have repair details been designed and bid for competitive local pricing. The above estimate does not incorporate a contingency.

April 12, 2023

Phase 1 Milestone Inspection Report at Les Falls Condominium in Marco Island, FL

SSEC has not reviewed the original drawings to determine code compliance with the code at the time of construction nor current code.

SSEC has not analyzed the original drawings to determine structural compliance with the code at the time of construction nor current code.

SSEC has not performed destructive testing to determine design conformity with the original building drawings.

Shoreline Structural Engineering and Consulting appreciate this opportunity to perform a Phase 1 Milestone inspection for the Les Falls Condominium. Please contact our office to discuss the report further.

Henry Rand, PE FL Reg. #82394