

## **Summary of initial work conducted by the ARC Committee**

The ARC consists of four (4) volunteers, who have been tasked with providing input to the BOA on suitability of FUTURE alterations requested by owners to their units, such that the integrity of the building is maintained going forward.

The ARC seeks to base decisions on facts and referring to the relevant FL building codes and FL Condominium Statutes, Lee County Permit Dept., CAM and if required the Association attorney.

The building(s) as designed, constructed, and approved for occupancy assumed the following

1. The Lanai area was not designed to be a “Living Space”, and the removal of the original sliders between the Lanai and the living areas was not considered in the design.
2. The Lanai was not intended to be under air or heat from the AC system installed in the unit.
3. The venting of the Lanai roof areas between floors would remain unencumbered.
4. The drainage system on the Lanai floor was to be maintained such that any water on the Lanai drained freely from the Lanai to the outside of the building.
5. Based on the engineers review in 2022 the floor loading in the Lanai as constructed was 60 lb./sq. ft. MAX.
6. The Association documents have not been reviewed or updated in line with the FL building code updates and the FL Condominium Statute updates.

The process for approving alterations to the units by owners needs improving, additionally the Association should conduct a review of the completed alteration to confirm that it meets the plans submitted.

Review of the field reports on stacks 1 – 4 has shown that of 24 units, 23 needed repairs, with the removal of up to 4 feet of concrete to get to “clean” steel and reconstruction of the supporting metalwork. The Lanais were all differing configurations, some with storm shutters some with sliders some without either. The Lanais had varying floor covering placed over the original concrete of varying types and installed on various dates, it is not possible with these variables to determine a single attributable cause of the water penetration.

The structural integrity of balconies and lanais constructed of steel reinforced concrete has been adversely affected by water intrusion and rust aggravated by the water retention qualities of carpet, river rock and unglazed tile (ceramic, porcelain, concrete tiles) and its grout and other penetrations into the concrete slab (e.g., shutters, sliders, etc.).

There has been reduced ventilation to the steel decks. Typical metal decks should have vent tabs or drilled holes. Water intrudes through cracks, fastener holes not sealed, concrete not waterproofed, allowing chlorides and other damaging elements to intrude. Venting metal decks in Florida was to aid in air flow and fight humidity and moisture build up.

There has been a lack of maintenance to the detriment of the Lanai floors, and supporting metalwork, no inspections of any sealant used for the alterations made (e.g., shutters, sliders, etc.). No inspection of the screen frames and the ability to drain water from the Lanai area.

Alterations (repairs) made by various owners have not been in accordance with FL building code or underwritten by an engineer of record. There are examples of repairs made in the Lanai's that have exacerbated the issue of water ingress.

Permits issued by Lee County only consider the statements made by the applicant on the permit application that the alterations conform to the current FL Building code, the application does not require concurrence from an engineer of record (PE) that the alteration is acceptable to and will not be detrimental to the structure of the building.

The ARC cannot find any documentation that a PE has ever approved the use of sliders on the edge of the Lanai, whereby the engineers report confirms the worst-case max load, the minimum strength of the concrete on the Lanai, the type of fastener and the ability to meet the manufacturer's embedded fastener requirement and the ability of the concrete to accept the penetration and the type of sealant to be used.

The following standard covers many of the requirements which should be considered and is usually called out by window manufactures for the installers to follow.

ASTM E2112 19C Standard Practice for  
Installation of Exterior Windows, Doors and Skylights

The introduction in the standard states:

A particularly noticeable behavior that indicates deficiencies in installation is rainwater leakage. Rainwater leakage has been the leading reason for dissatisfaction of building owners with performance of fenestration installations.

For this reason, this practice places greater emphasis on preventing or limiting rainwater leakage than on any other single performance characteristic.

### **In summary**

The ARC has recommended to the BOA that ARC requests for the fitment of storm shutters in the Lanai, installation of Inside sliders and the addition of floor coverings in the Lanai are given priority and fast tracked if possible. Approval will be given providing that the applications meet the rules and regulations recently issued.

The ARC is also recommending to the BOA that ANY removal of an existing alteration needs approval. We have observed that removal of some storm shutters has left the building exposed to water ingress due to the contractor NOT repairing the building after removing the fasteners.