Milestone Inspection Report Phase 1

Royal Marco Point I
Condominium Association, Inc.

2000 Royal Marco Way
Marco Island, FL 34145
Prepared on:
1/8/2025

Prepared By:
CONSULT engineering

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Milestone Inspection Report Phase 1

REPORT SUMMARY

1 GENERAL

1.1 Consult Engineering, Inc. (Consult) has been retained by Royal Marco Point I Condominium Association, Inc. (Association) to inspect the building located at 2000 Royal Marco Way, Marco Island, FL 34145. The purpose of this inspection and subsequent report is to perform a Milestone Inspection of the building in accordance with Florida Statute 553.899(8). The site visit was conducted on **November 26, 2024**.

1.2 This Milestone Inspection has been performed by the registered professional engineer indicated at the end of this report or one of his/her duly authorized representatives in accordance with Florida Statute Chapter 471. A copy of the full report has been provided to the local building official. Questions related to this report should be addressed to the Association board or the local building official.

1.3 The inspection performed is of the readily accessible and visible structural components of the building in both habitable and non-habitable spaces. Sampling has been utilized to extrapolate the findings contained in this report. The visual inspection performed should not be considered exhaustive or all-inclusive, nor is it required to be per Florida law.

1.4 Only components listed in this Report Summary and in the "Observations" Section of the full report exhibited any signs of substantial structural deterioration or possible substantial structural deterioration. Building components not listed in this report were either not available for visual inspection or did not exhibit any readily visible signs of substantial structural deterioration.

2 PROPERTY DESCRIPTION

2.1 The building located at 2000 Royal Marco Way, Marco Island, FL 34145, is a seven (7) story, fifty-six (56)-unit building occupied in 1988 and constructed of reinforced concrete and concrete block. The floors are poured-in-place concrete slabs. Each of the five (5) towers are covered with a central, flat, rectangular, bituminous membrane roof surrounded by low-sloped metal tile mansard roofs. The air conditioner units are located on stone-covered, flat, bituminous membrane sections over the stair / elevator stacks. The lanai and balcony stacks are also covered with flat bituminous roofing. Hip and gable metal tiled roofs extend from the metal tiled mansard roof in various places. Skylights are also present amongst this complex roofing arrangement. The ground floor and first floor are used for a parking garage, elevator lobbies, elevator equipment rooms, storage rooms, fire pump room, and the administration office. The first floor also contains three residential units. Each of the five towers have their own hydraulic elevator, staircases, and closed-roof multi-

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floor atrium. The stair cases are covered from above but open to the elements. The plan view of the tower s is a T-shaped arrangement and the two line segments of the "T" are structurally isolated from each other by an expansion joint. There are two elevated, single-story, concrete tile-covered, multi-unit residential structures adjacent to, but structurally isolated from the tower structures. Also on site is a clubhouse, a pool, an extensive network of wooden walkways, and another multi-tower residential building with the address of 3000 Royal Marco Way and of a similar size to this building at 2000 Royal Marco Way.

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3 SUMMARY OF FINDINGS

3.1 SUBSTANTIAL STRUCTURAL DETERIORATION

☐ **WAS NOT FOUND** on any of the building components observed visually. A Phase Two Milestone Inspection is not required at this time. Engineer recommends that this study be performed again within 5 years from the date of this report.

☒ **WAS FOUND** on the following structural components of the building thus prompting a Phase Two Milestone Inspection to be performed in accordance with FS 553.899. This DOES NOT mean the building is unfit for habitation or inherently unsafe. Further study is required.

1. Janitor Closet
2. Lanai Screen Enclosure Columns
3. Stair Tower Railings
4. Atrium Slab Edges

3.2 NON-SUBSTANTIAL STRUCTURAL ISSUES

☐ **WAS NOT FOUND** and no further action is required at this time. Engineer recommends that this study be performed again within 5 years from the date of this report.

☒ **WAS FOUND** and recommendations for repair are included in the full Phase 1 Milestone Report. Deterioration was discovered at the following locations:

1. Lanai Tile
2. Downspouts
3. Exterior Vertical Cold Joint
4. Parking Floor Cold Joints
5. Under-Stair Closets & Ground Floor Mechanical Room
6. Garage Slab Ceilings
7. Stair Tower Walls

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The undersigned reserves the right to amend this report at any time based on new information provided subsequent to preparation of this report. Please call or e-mail our office if you have any questions.

Sincerely,

Jude Feingold
Project Engineer

Joshua Porter
Digitally signed by Joshua Porter
Date: 2025.01.15 13:30:55 -05'00'

JOSHUA L. PORTER LICENSE NO. 67430 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua L. Porter, PE, SI on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joshua L. Porter, PE, SI 67430

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1 GENERAL

1.1 BACKGROUND

1.1.1 Florida Statute 553.899 requires that condominiums and cooperative buildings in Florida that have any building 3 stories or more in height be inspected by an engineer or architect licensed in Florida. Initial inspection deadlines and inspection cycles are specified in Florida Statute 553.899(3).

1.1.2 The inspection shall consist of two phases: a "Phase 1 Milestone Inspection" and a "Phase 2 Milestone Inspection." Each building must have its own inspection and separate report.

1.1.3 The purpose of the inspections is to identify both "substantial" and "non-substantial" structural deterioration to any components of the building structure and to provide recommendations for repair or next steps.

1.1.4 These reports are to be prepared in 10-year intervals at a minimum, but close attention should be given to the recommendations of the engineer preparing the Phase 1 or Phase 2 Milestone Inspection Report for re-inspection periods which may be more frequent than the state requirements.

1.1.5 A report must be submitted directly from the engineer to the Building Official and the Association Board. Associations have certain obligations to post the summary report on the premises and provide the unit owners and residents with copies of the report. It is recommended that an Association contact an Attorney for more guidance on complying with the law.

1.2 DEFINITIONS

1.2.1 *Milestone inspection* - means a structural inspection of a building, including an inspection of load-bearing walls and the primary structural members and primary structural systems as those terms are defined in s. 627.706, by a licensed architect or engineer authorized to practice in this state for the purposes of attesting to the life safety and adequacy of the structural components of the building and, to the extent reasonably possible, determining the general structural condition of the building as it affects the safety of such building, including a determination of any necessary maintenance, repair, or replacement of any structural component of the building. The purpose of such inspection is not to determine if the condition of an existing building is in compliance with the Florida Building Code or the fire safety code. – Florida Statute 553.899(2)(a)

1.2.2 *Non-Substantial Structural Deterioration* - any structural distress to any component of the building which does not support other components of the building and which presently does not cause an imminent life-safety risk. However, falling debris from stucco or concrete damage, for example, may still pose property damage and personal injury risks until the repairs outlined in the report can be carried out.

1.2.3 *Phase 1 Milestone Inspection Report* – a report outlining any observed substantial structural deterioration and non-substantial structural deterioration. This report is issued to both the Condominium or Cooperative Association and the Building Official in their area. Any substantial structural deterioration observed in the Phase 1 Milestone Inspection Report must be further investigated in a Phase 2 Milestone Inspection Report.

1.2.4 *Phase 2 Milestone Inspection Report* – a report outlining the findings of an engineer's investigation into any substantial structural deterioration identified in a Phase 1 Milestone Inspection Report. Non-destructive and limited destructive techniques are often employed to conduct a Phase 2 Milestone investigation.

1.2.5 *Primary Structural Members* - means a structural element designed to provide support and stability for the vertical or lateral loads of the overall structure. - Florida Statute 627.706(2)(d)

1.2.6 *Primary Structural Systems* - means an assemblage of primary structural members. – Florida Statute 627.706(2)(e)

1.2.7 *Substantial Structural Deterioration* - means substantial structural distress 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 such surface imperfections are a sign of substantial structural deterioration. - Florida Statute 553.899(2)(b)

1.2.8 *Carbonation & the Concrete Spalling / Degradation Process* – is the process by which concrete, when chronically exposed to atmosphere and moisture; degrades by the natural carbonation process of the concrete from the outside surfaces inwards. When the carbonation process reaches rebar, the rebar rusts, which in turn weakens and expands, then pushes outward on the concrete, resulting in spalling of the concrete and exponential perpetuation of the process. Cracks and spalling allow salty moisture and atmospheric carbon dioxide into the body of the concrete and closer to the rebar or in direct contact with the rebar. This accelerates the degradation process due to carbonation because the carbonation occurs closer to the rebar.

2 OBSERVATIONS

2.1 SUBSTANTIAL STRUCTURAL DETERIORATION

2.1.1 JANITOR CLOSET

2.1.1.1 There is a large spall on a cylindrical support column inside a janitor's closet (Photos 01, 02, 03). Even if there was an attempt to coat the spall with paint, there is still exposed concrete evident which will react with the moist, salty, coastal air, resulting in more spalling of the concrete. The Carbonation process will progress rapidly inside the penetrations in the painted surfaces. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.1.2 LANAI SCREEN ENCLOSURE COLUMNS

2.1.2.1 Some columns, located on the slab edges of lanais; were spalled (Photos 04, 05 typical). The Carbonation process will progress rapidly inside of these spalls. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.1.3 STAIR TOWER RAILINGS

2.1.3.1 Multiple brackets at locations where the railings are fastened to the wall, are severely corroded and beginning to affect the adjacent concrete walls (Photos 06, 07, 08 typical). As the aluminum fasteners corrode away, they leave space for moisture to enter the stucco and therefore to be trapped against the concrete. The Carbonation process will progress rapidly inside of this new small voids against the concrete. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.1.4 ATRIUM SLAB EDGES

2.1.4.1 Locations along the slab edges of the atriums are spalled. (Photo 09 typical). The Carbonation process will progress rapidly wherever there is chronic moisture in contact with the concrete. Spalls allow this moisture into the concrete and spalls tend to continue becoming worse because the rebar corrosion continues. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.2 NON-SUBSTANTIAL STRUCTURAL ISSUES

2.2.1 LANAI TILE

2.2.1.1 The tile on some portions of the lanais is damaged between the slab edge and the screen enclosure (Photos 10,11 typical). The tile is damaged from the screen enclosures blocking the proper runoff of rainwater. Tile has been installed too close to the weepholes in the bottom of the screen enclosures and / or the weepholes have sometimes been clogged. Lingering rainwater on any masonry or tile surface, degrades the grout and concrete. Damaged tile lets water penetrate to the waterproofing layer (if present) underneath and shortens it's life. If there is no waterproofing layer under the tile, the concrete structure below will be affected directly and more rapidly. See Carbonation & the Concrete Spalling / Degradation Process (pg. 2)

2.2.2 DOWNSPOUTS

2.2.2.1 A downspout exit was crumpled at it's exhaust end (Photo 12 typical). The rainwater exiting this downspout looks as though it could be scattered around the adjacent tile and concrete surfaces or between floors This situation increases the chronic exposure to moisture which accelerates the carbonation process of concrete. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.2.3 EXTERIOR VERTICAL COLD JOINT

2.2.3.1 A vertical cold joint between a stair tower and main building appears to require a substantial width of sealant. This sealant is cracked (Photo 13 typical). Any penetration of moisture into this cold joint will quickly degrade the concrete within. Holding moisture in this joint will soon be detrimental to the concrete via the Carbonation process. It is very important to maintain the sealant at the entrance to a cold joint. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.2.4 PARKING FLOOR SLAB COLD JOINTS

2.2.4.1 The multiple cold joints between parking garage slabs are patched with rigid masonry from above and below the slab. This patching is cracked on the top surface, therefore allowing water to enter the cold joint and become trapped there, degrading the cold joint and patching from below. (Photos 14, 15, 16 typical). Any penetration of moisture into this cold joint will quickly degrade the concrete within. Holding moisture in this joint will soon be detrimental to the concrete via the Carbonation process. It is very important to maintain flexible sealant at the entrance to a cold joint while leaving the bottom of the joint open to drain if any moisture does enter from above. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.2.5 UNDER STAIRS CLOSETS & GROUND FLOOR MECHANICAL ROOM

2.2.5.1 Some of the ground floor storage closets which are located under the upper stair landings which lead to the 2-story buildings show signs of water intrusion on the surfaces of their inner walls and cracks above their door headers (Photos 17, 18, 19 typical). These closets are located next to the expansion joints between the main building and the 2-story buildings, and on the main-building side of the expansion joint. A ground floor mechanical room showed signs of water intrusion on the surfaces of their inner walls and efflorescing cracks in the ceiling. (Photos 20, 21, 22 typical). This mechanical room is located adjacent to the expansion joint in the center of the main building. The Carbonation process will progress rapidly inside these cracks and the moist areas. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.2.6 GARAGE SLAB CEILINGS

2.2.6.1 Specific locations on the ceiling of the garages have paint peeling prematurely. This is a sign of water exposure, possibly from above. (Photos 23, 24, 25, 26, 27 typical). The Carbonation process will progress rapidly wherever there is chronic moisture in contact with the concrete. It should be determined where the moisture is coming from and it should be stopped. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.2.7 STAIR TOWER WALLS

2.2.7.1 Consistent vertical settling cracks are observed in the stair towers where the tower walls join the tower columns adjacent to the main structure. (Photos 28, 29, 30, 31 typical). These cracks have been caulked multiple times and some look as if they need additional repair or re-caulking. The Carbonation process will progress rapidly wherever there is chronic moisture in contact with the concrete. It should be determined why and how fast the settling is progressing. See *Carbonation & the Concrete Spalling / Degradation Process* (pg. 2)

2.2.7.2 Concrete efflorescence and peeling paint with exposed cracks is present in various locations within the stair tower (Photos 32, 33, 34, 35, 36 typical).

3 CONCLUSION AND RECOMMENDATIONS

3.1 Consult Engineering, Inc. (Consult) recommends the following actions be taken by the Association or Cooperative Board:

3.1.1 Substantial Structural Deterioration

3.1.1.1 Perform a Phase Two Milestone Inspection of the items identified in Section 2.1 of this report in accordance with FS 553.899(7)(b). The engineer performing the Phase Two Milestone Inspection should provide recommended repairs to address the items identified in both reports.

3.1.2 Non-Substantial Structural Issues

3.1.2.1 All downspouts should be routed to smoothly exit at least 4 feet away from the building and any downspout junctions upstream of the exit should be assembled properly with no damage.

3.1.2.2 All screen enclosures should be inspected for their ability to drain rainwater through their weepholes. If tile is blocking the weepholes, a portion should be removed next to the screen enclosure. Any other obstructions or clogs should be removed.

3.1.2.3 Re-seal all compromised exterior vertical cold joints and replace.

3.1.2.4 Cut through and clear masonry patching from above and below the garage floor cold joints and install flexible sealant along the top side of the joints.

3.1.2.5 Excavate and repair all stucco and or concrete cracks above the ground floor closet doorways.

3.1.2.6 Determine the source of moisture intrusion into the equipment room and ground floor closets and at the locations of peeling paint on garage ceilings. Repair the issues at their source.

3.1.2.7 Re-seal all vertical compromised settling cracks at the stair towers, usually found on the lowest two floors.

3.1.2.8 Repair all stucco and or concrete cracks, spalling, peeling paint, and efflorescence anywhere in the stair towers.

4 PHOTOGRAPHS

Photo 01 Ref: 2.1.1.1 – Spalled Column in Janitor Closet

Photo 02 Ref: 2.1.1.1 – Spalled Column in Janitor Closet

Photo 03 Ref: 2.1.1.1 – Spalled Column in Janitor Closet

Photo 04 Ref: 2.1.2.1 – Spalled Lanai Column Base (Typical)

Photo 05 Ref: 2.1.2.1 – Spalled Lanai Column Base (Typical)

Photo 06 Ref: 2.1.3.1 – Corroded Railing Fasteners w/ Concrete Damage (Typical)

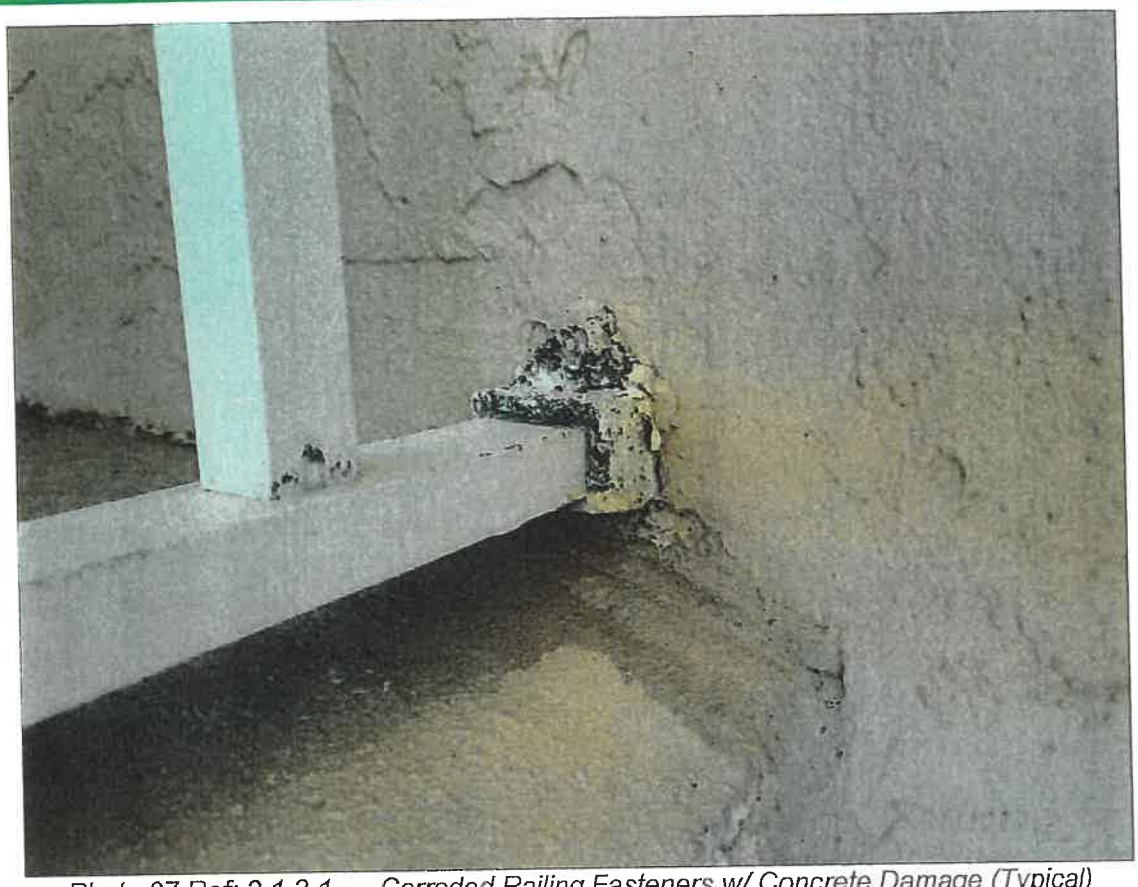

Photo 07 Ref: 2.1.3.1 – Corroded Railing Fasteners w/ Concrete Damage (Typical)

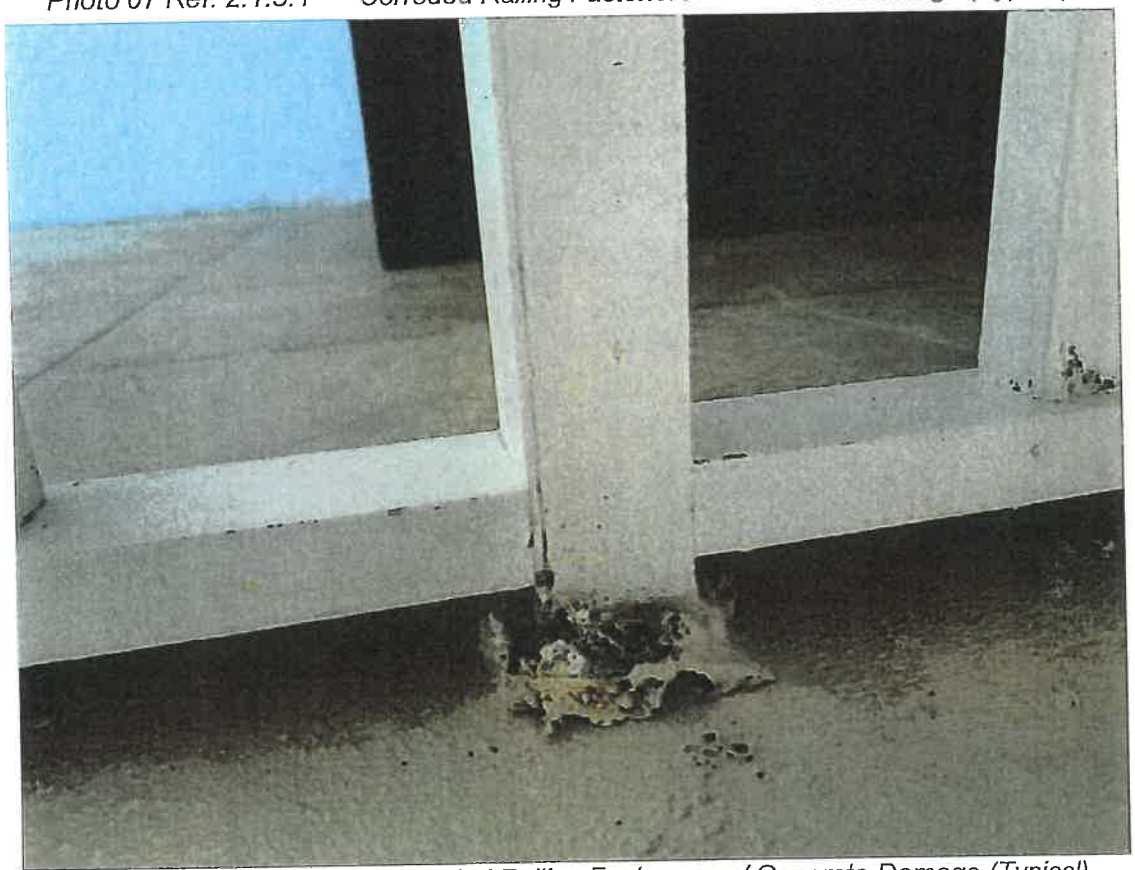

Photo 08 Ref: 2.1.3.1 – Corroded Railing Fasteners w/ Concrete Damage (Typical)

Photo 09 Ref: 2.1.4.1 – Slab Edge Spalls, Atrium (Typical)

Photo 10 Ref: 2.2.1.1 – Blocked Screen Enclosure Weepholes & Damaged Tiles (Typical)

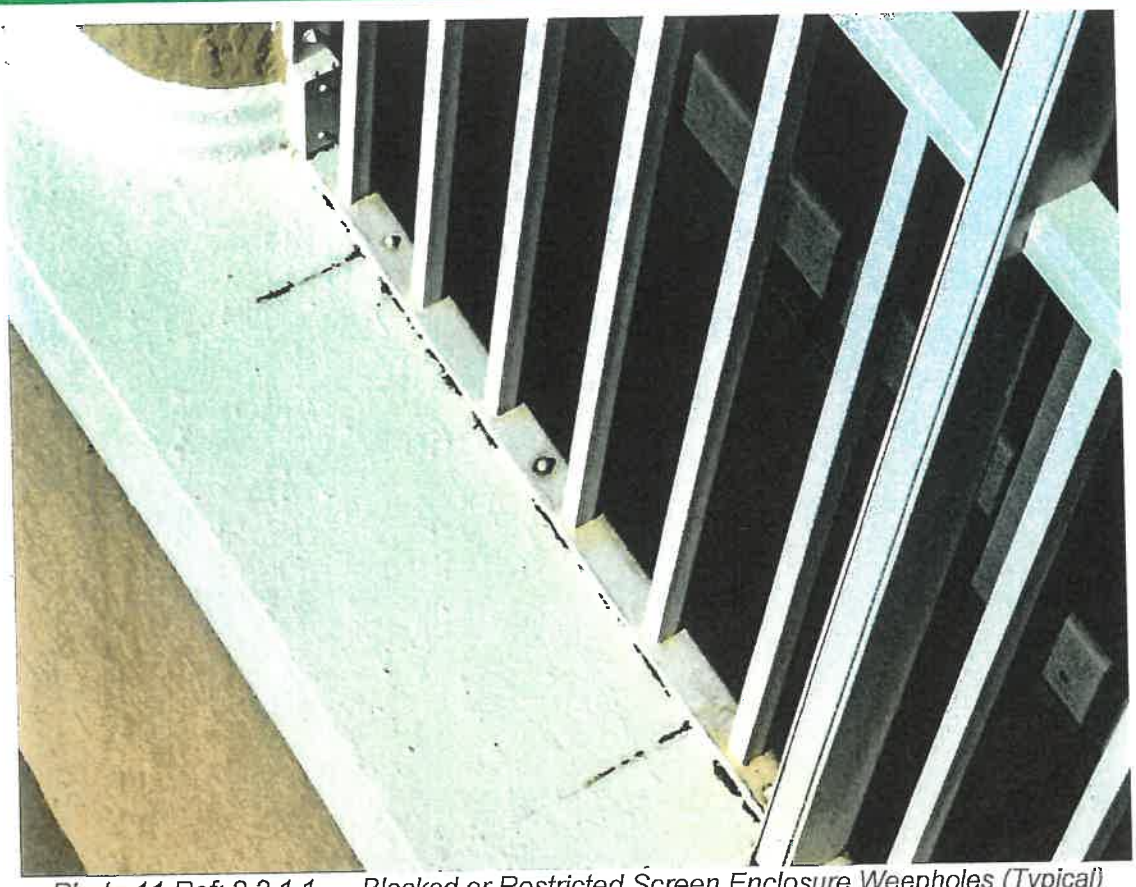

Photo 11 Ref: 2.2.1.1 – Blocked or Restricted Screen Enclosure Weepholes (Typical)

Photo 12 Ref: 2.2.2.1 – Crumpled Downspout Exit

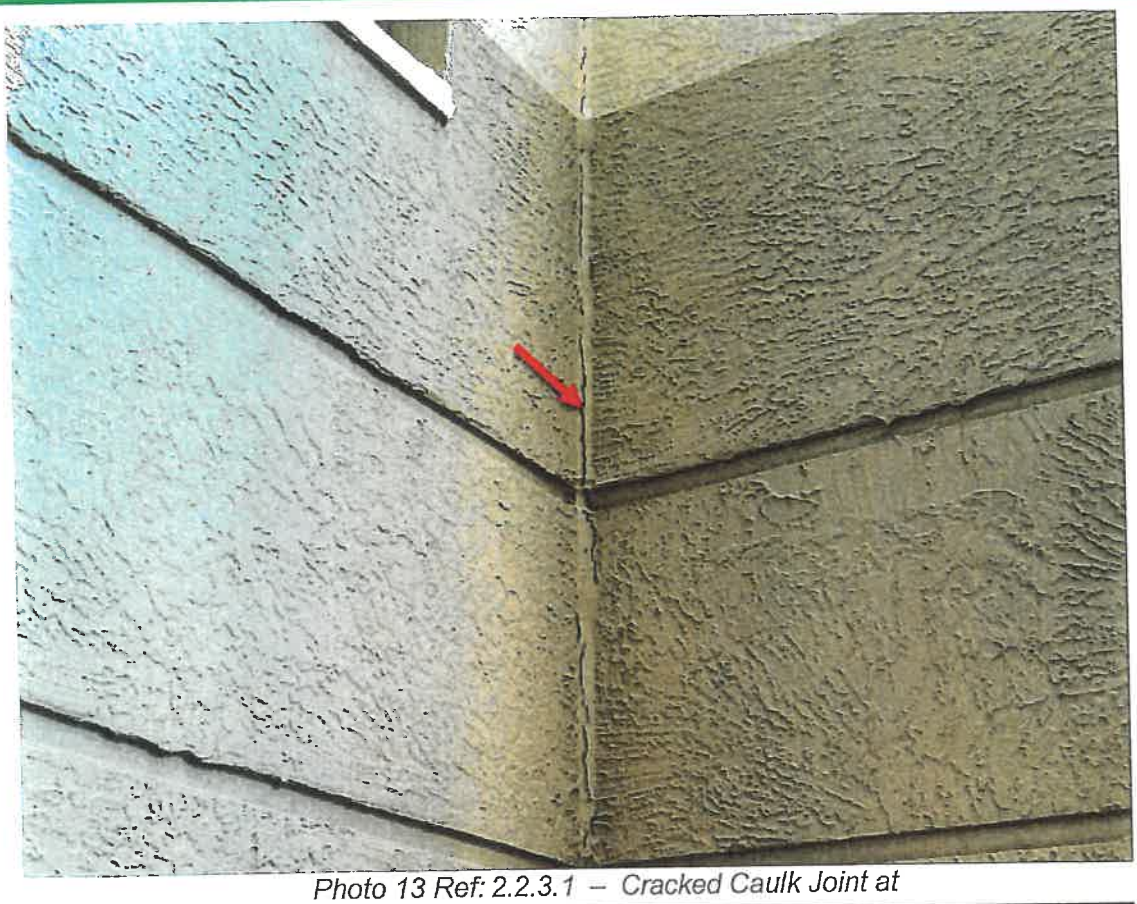

Photo 13 Ref: 2.2.3.1 – Cracked Caulk Joint at

Photo 14 Ref: 2.2.4.1 – Masonry-Covered Cold Joint (Typical)

Photo 15 Ref: 2.2.4.1 – Masonry-Covered Cold Joint (Typical)

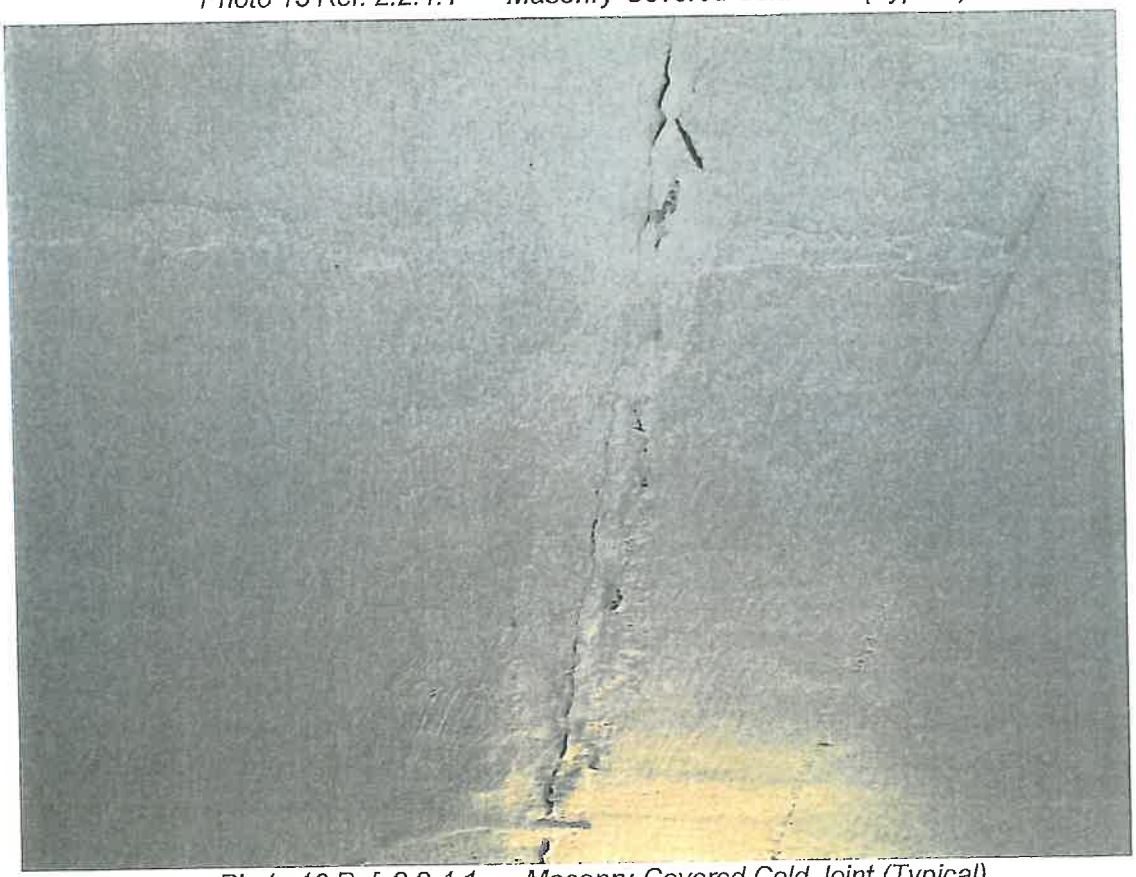

Photo 16 Ref: 2.2.4.1 – Masonry-Covered Cold Joint (Typical)

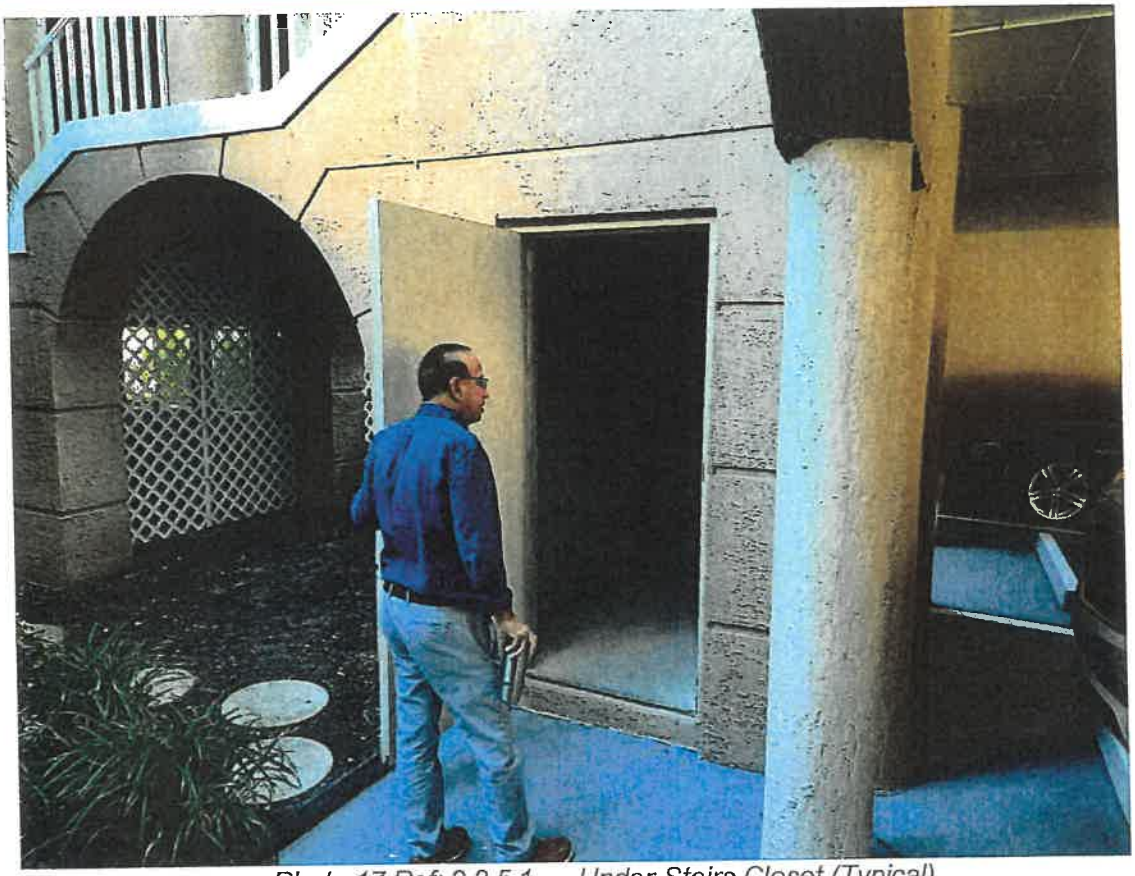

Photo 17 Ref: 2.2.5.1 – Under-Stairs Closet (Typical)

Photo 18 Ref: 2.2.5.1 – Moisture on Wall, Under-Stairs Closet (Typical)

Photo 19 Ref: 2.2.5.1 – Cracks in Door Header Area, Under-Stairs Closet (Typical)

Photo 20 Ref: 2.2.5.1 – Ground Floor Mechanical Room Adjacent to Expansion Joint

Photo 21 Ref: 2.2.5.1 – Crack Efflorescence, Ground Floor Mechanical Room

Photo 22 Ref: 2.2.5.1 – Wall Moisture, Ground Floor Mechanical Room

Photo 23 Ref: 2.2.6.1 – Moisture Coming Through Garage Ceiling (Typical)

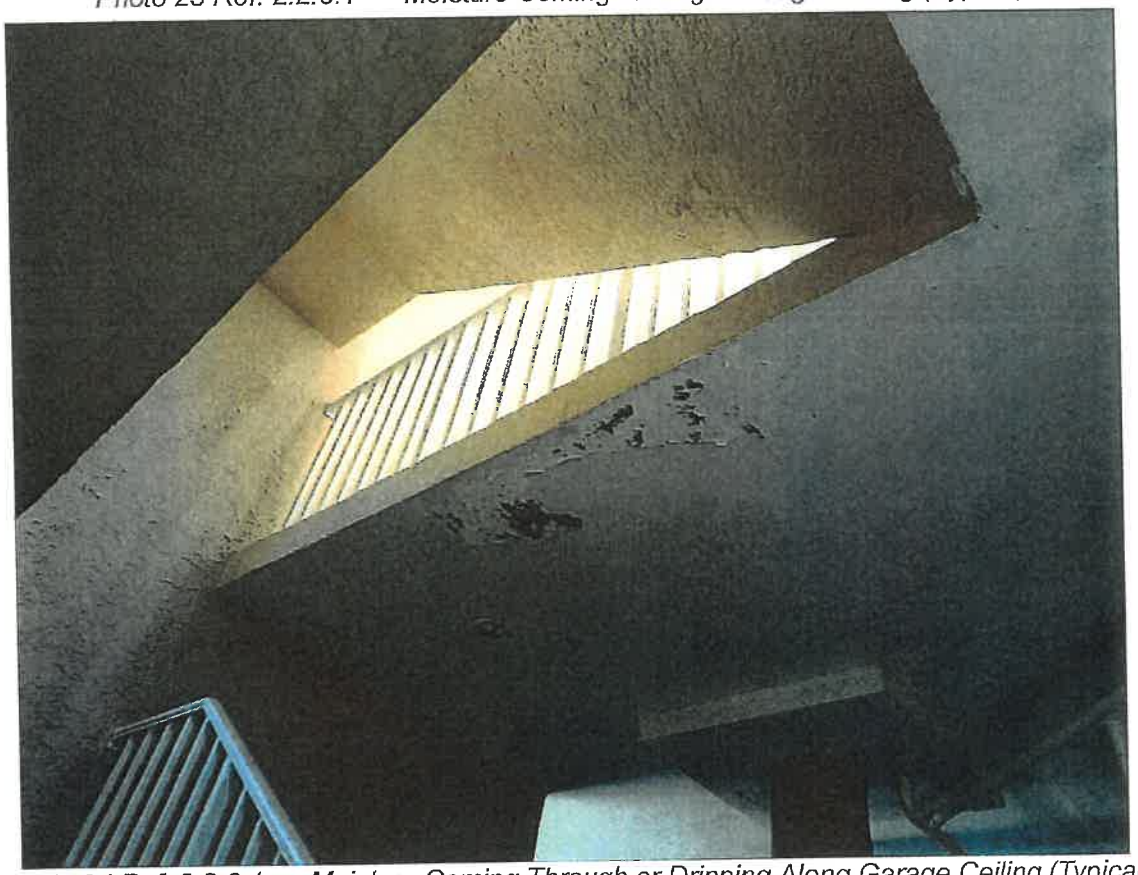

Photo 24 Ref: 2.2.6.1 – Moisture Coming Through or Dripping Along Garage Ceiling (Typical)

Photo 25 Ref: 2.2.6.1 – Moisture Coming Through Garage Ceiling (Typical)

Photo 26 Ref: 2.2.6.1 – Moisture Coming Through Garage Ceiling (Typical)

Photo 27 Ref: 2.2.6.1 – Moisture Coming Through Garage Ceiling (Typical)

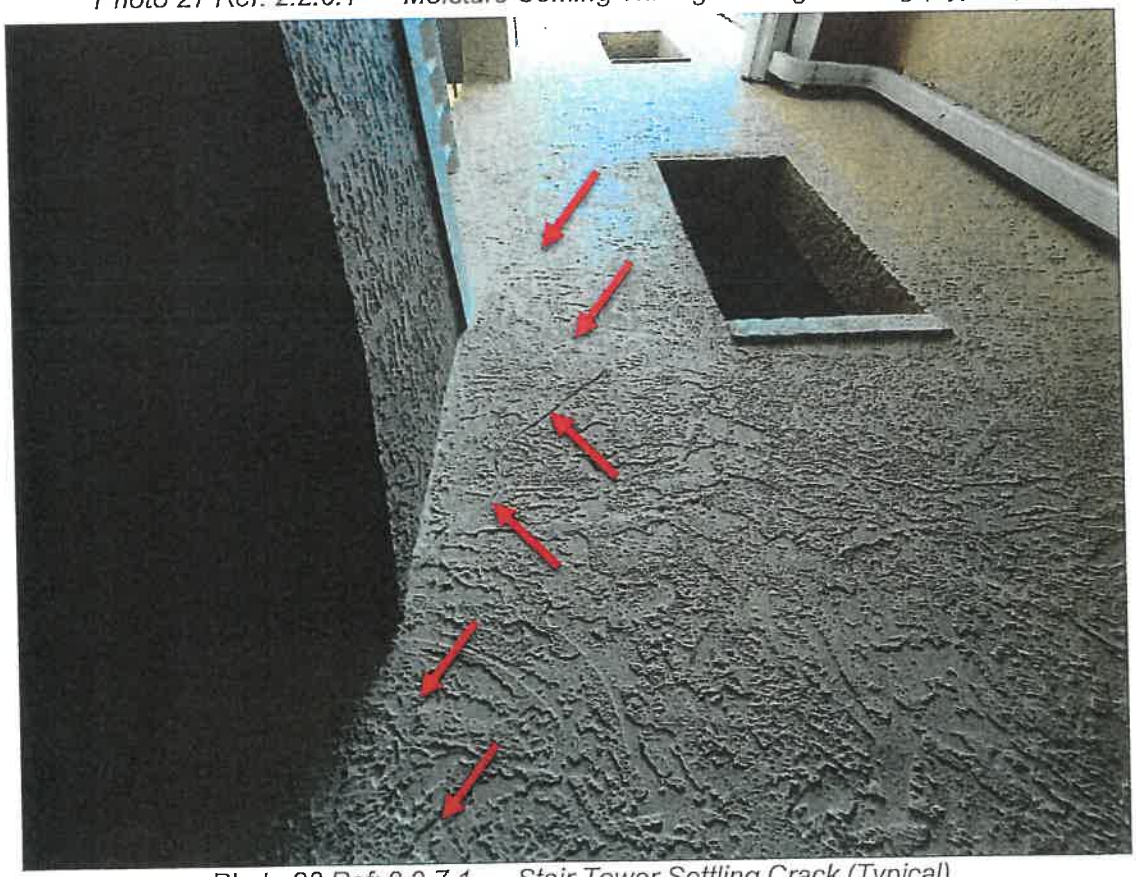

Photo 28 Ref: 2.2.7.1 – Stair Tower Settling Crack (Typical)

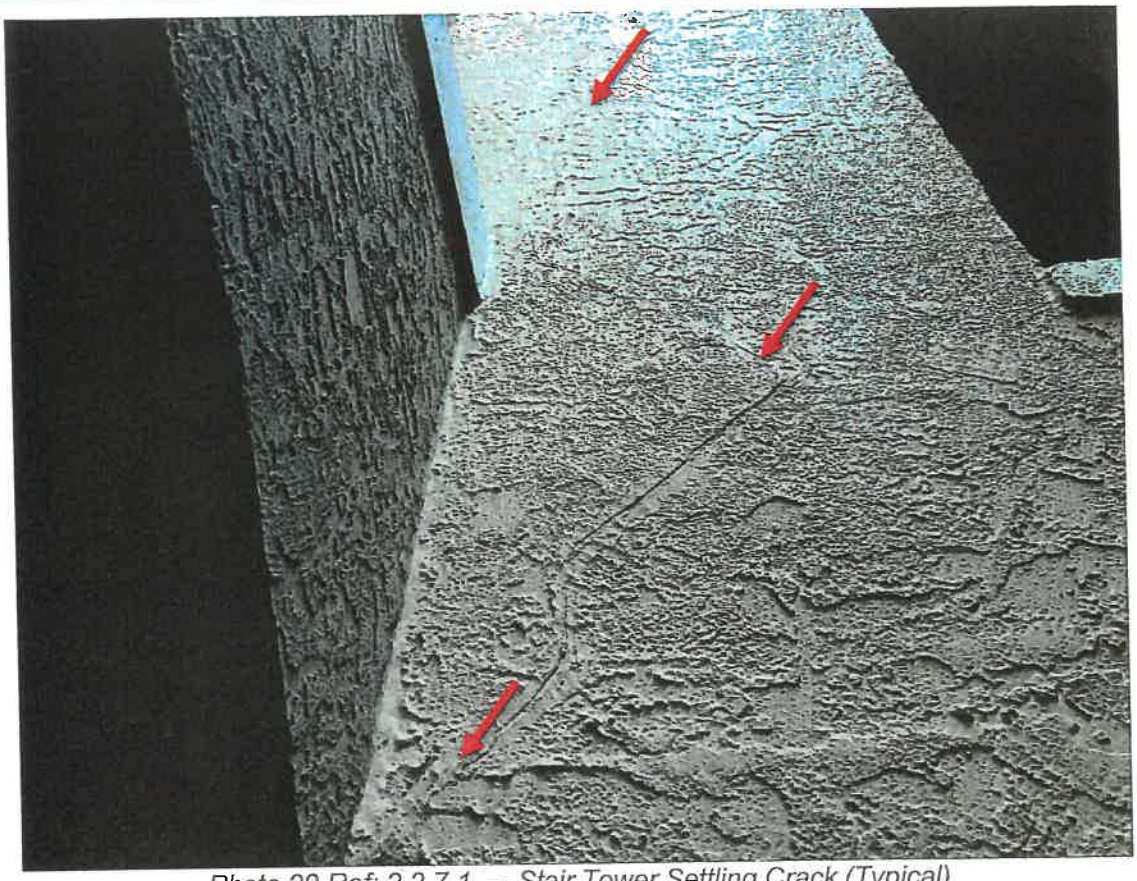

Photo 29 Ref: 2.2.7.1 – Stair Tower Settling Crack (Typical)

Photo 30 Ref: 2.2.7.1 – Stair Tower Settling Crack (Typical)

Photo 31 Ref: 2.2.7.1 – Stair Tower Settling Crack (Typical)

Photo 32 Ref: 2.2.7.2 – Stair Tower Efflorescence *(Typical)*

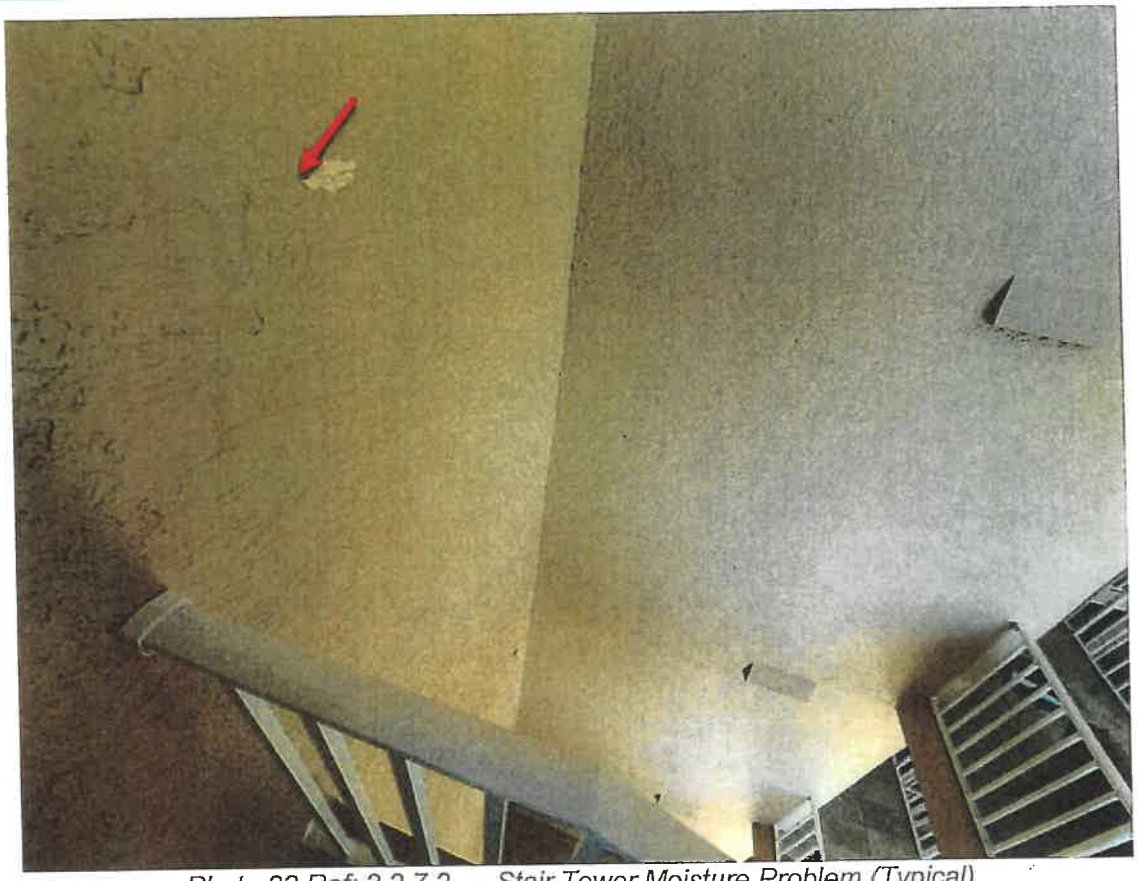

Photo 33 Ref: 2.2.7.2 – Stair Tower Moisture Problem (Typical)

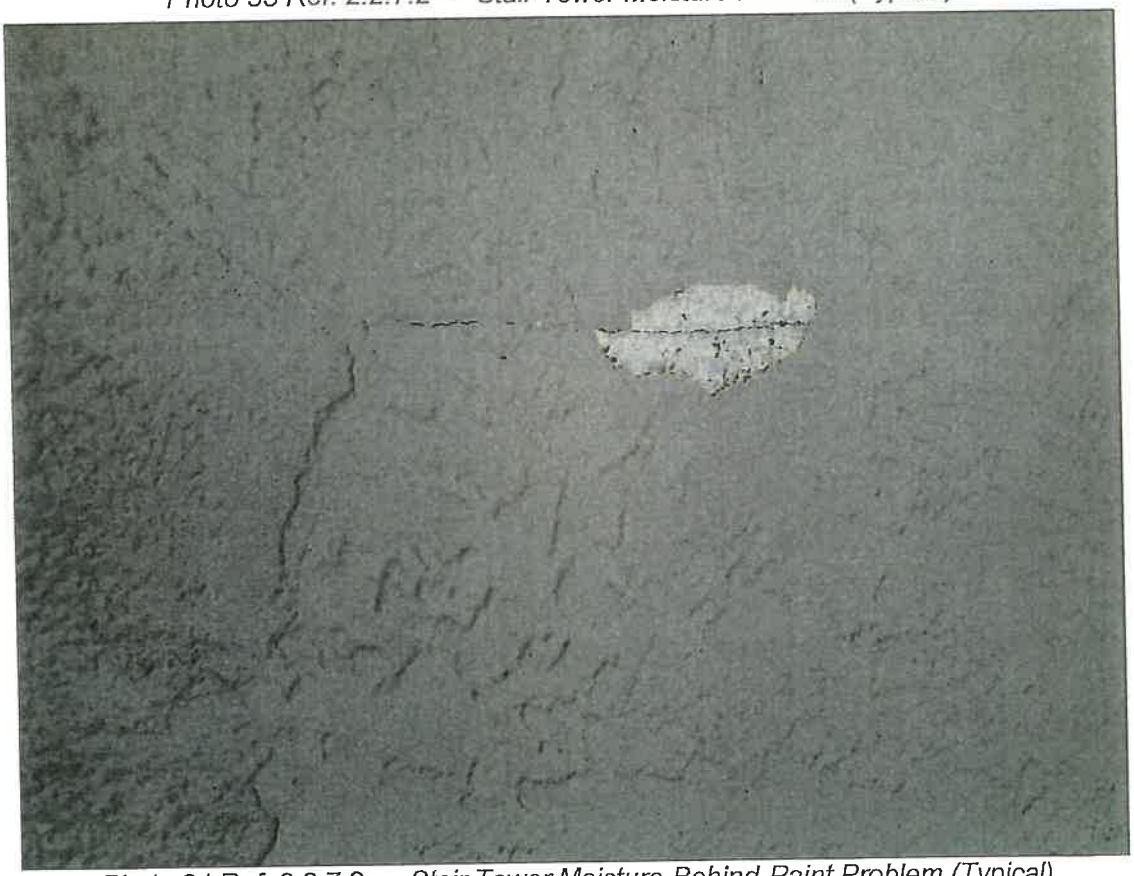

Photo 34 Ref: 2.2.7.2 – Stair Tower Moisture-Behind-Paint Problem (Typical)

Photo 35 Ref: 2.2.7.2 – Stair Tower Moisture-Behind-Paint Problem (Typical)

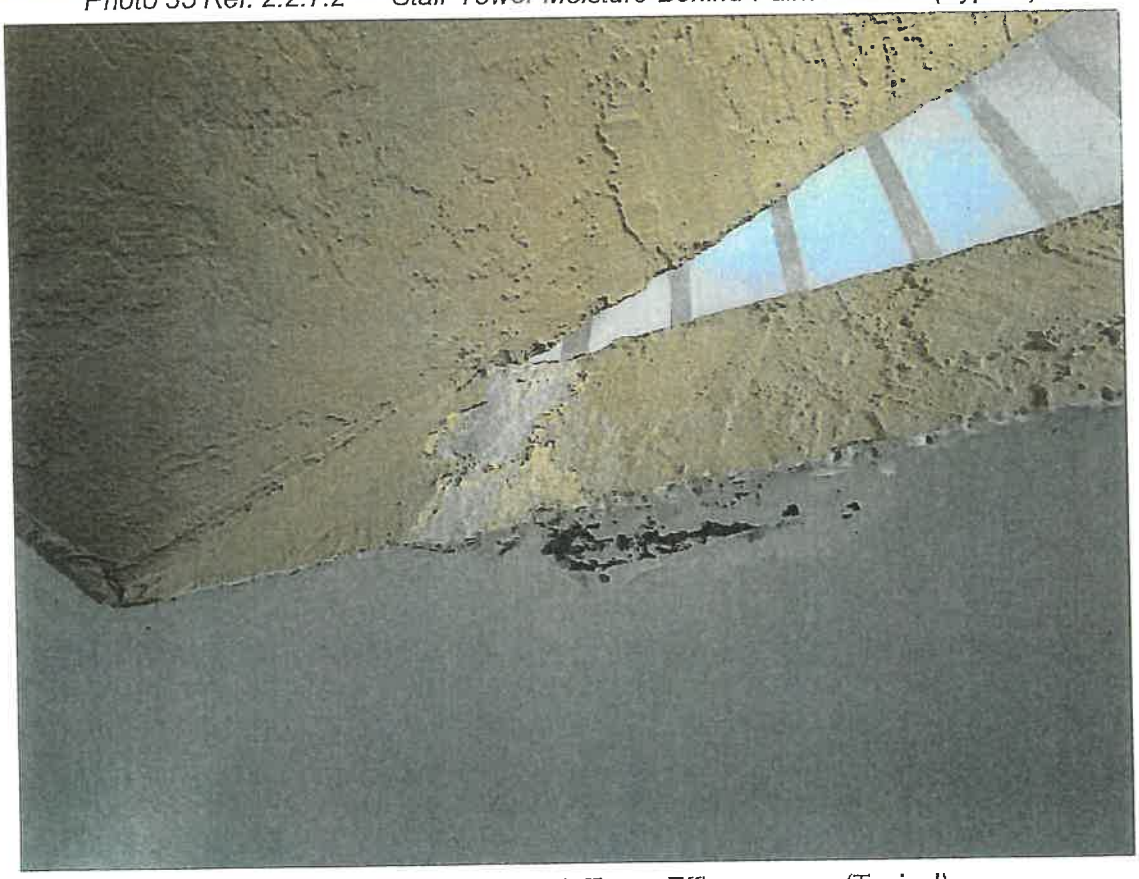

Photo 36 Ref: 2.2.7.2 – Stair Tower Efflorescence *(Typical)*