November 28th, 2023

Building Officials
Pembroke Pines Building Department
601 City Center Way
Pembroke Pines, FL 33025

Re: Heron Pond Condominium
Structural Conditions – Building #5
Updated Findings

Dear Building Officials:

Since the end of July of this year a representative of ACG Engineering Services, Inc. (ACG), acting on my behalf, has surveyed all nineteen buildings at the Heron Pond Condominium complex. We have attached a copy of drawing S-3.0, a plan reflecting our findings from our survey of the structural conditions for Building #5. This sheet has been submitted with the set of permit drawings for the repair project. This report is being submitted subsequent to full perimeter destructive observations conducted at Buildings #2 and #3 and spot-check destructive observations made at Buildings #5 and #10. We have learned the following:

- Those findings at Buildings #2, #3, #5, and #10 have confirmed that the visual indications (from the non-destructive observation phase) are accurate – areas observed to reflect damage in fact have revealed damage and those areas not noted to reflect damage have been generally found to be damage-free.
- The termite damage to the exterior walls appears to have originated with the paneling used as exterior sheathing. Termite "tunneling" appeared to run in between the inside face of the paneling and the exterior faces of the wall 2x4 members.
- The balconies, the portions of the building structures permanently and fully exposed to the weather and elements, have sustained the worst of the wood damage.
- The bay windows, portions of the building structure whose undersides are permanently exposed to the weather and elements, have also sustained significant levels of damage.
- Even the balcony damage appears to lessen as the affected structural members get further away from the outside balcony edges.
- A number of the building corners have sustained significant structural damage.
- To date, none of the second-floor trusses exposed by stucco and sheathing removal show section loss or compromise.
- The sections of the second-floor wall that have been exposed, even when directly adjacent to first floor wall damage, have been observed to be intact, with no appreciable damage witnessed.
- In summary, to date, what has been exposed strongly suggests that the floor and roof trusses, except where sections of floors have been noted as being "soft" or "bouncy", have not been compromised by termite or water damage.
- What has been exposed to date also demonstrates that the damage to the exterior wall 2x4 structure is intermittent; that is to say that much of the wall 2x4 structure is intact and need not be replaced.

Based on our original report of our survey findings for this building, combined with what we have since observed, as part of destructive observation of portions of Buildings #2, #3, #5, and #10, we offer the following summary:

A summary of our **findings** is as follows:

- At Unit #101 a test hole was observed at an old damage location.
- Water damage was observed at the floor line adjacent to a bay window in Unit #103.
- A water stain was observed on the ceiling of Unit #105.
- An old repair was observed on the ceiling of Unit #205.
- Termite dust treatment holes were observed in Unit #208.
- There are at least 40 different locations around the building where damage has been visually detected, involving all 16 units.
- Additionally, signs of previous repairs have been noted at 23 other locations around the building.
- There are signs of damage or old repairs visible on all eight (8) balcony stacks.
- There are signs of damage to sections of exterior walls that appear to carry significant second floor and roof loads.
- There are at least two (2) locations where damage has been observed in sections of the structure that clearly appear to have been previously repaired; in these locations fresh signs of damage are telegraphing through the finishes.

Our findings lead to the following **concerns:**

- Since the test hole in Unit #101 represents a location where damage was previously observed, damaged structure may remain.
- The water damage noted by the bay window in Unit #103 may be hiding damaged structure.
- The water stain on the ceiling in Unit #105 may reflect water damaged floor joists above.
- The old repair on the ceiling of Unit #205 may be indicative of truss damage that remains above.
- The termite dust treatment holes in Unit #208 indicate a previous location of termite damage that may have included damage sustained by the structure.
- Damage sustained by the exterior structural components, sections of the walls, all balconies, and bay windows, in the form of termite and/or water related wood deterioration, is significant.
- Of additional concern is that approximately 10% of recently repaired sections are already showing new signs of deterioration. All previous repair areas should be re-addressed.
- All of the balcony stack structures, including joists, beams, and columns, have sustained significant structural damage.
- Some of the apparently compromised sections of exterior wall appear to carry considerable 2nd floor and/or roof loads, but do not appear to pose a safety concern at the present time. Prior to the removal of any structure during the repair process, the second floor and roof structures should be adequately shored.

Based on our concerns, we **recommend** the following:

- The flooring and/or the ceiling should be removed, as required, to address the noted damages in the interiors of Units #101, #103, #105, #205, and #208.

- All access to all balconies (both levels) must be prohibited until repairs have been made.
- All balcony ceilings should be removed to allow for visual observations of the second floor and roof structures.
- All second-floor balcony and bay window structures should be shored and then rebuilt as required.
- All roof trusses over the second-floor balconies shall be repaired as required.
- Damages that do extend into the interior of the building must be identified and repaired upon discovery.
- Wall bulges, cracks, and delaminations must be removed and those wall sections repaired in accordance with the loads that they carry.
- During the repair project for this building, the building should be vacated to allow for an expeditious repair process and to prohibit the presence of non-construction personnel on an active construction site.

The destructive observations made at Buildings #2, #3, #5, and #10 and their close correlation with the non-destructive visual inspections of those buildings confirm that the observations made by visual inspection of this building provide an accurate assessment of the structural damage sustained by this building's structure. In general, it is my professional opinion, to the best of my knowledge, that less than 25% of the structure has sustained damage. All sections that have sustained damage shall be repaired and/or replaced.

We have provided, attached to this report, photographs from our destructive observations of Building #2.

Please do not hesitate to let us know if you have any additional questions, comments, or concerns. Thank you.

Respectfully submitted,

Henry S Kreh

Digitally signed by Henry S Kreh
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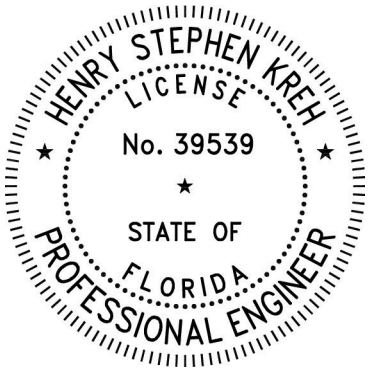
Henry S. Kreh, P.E.
Vice President
ACG Engineering Services, Inc.
FL PE No. 39539/FL SI No. 736



PHOTOGRAPHS

Photo #1 – Removed Severely Damaged Exterior Balcony Beam/
Revealing Adjacent Joist with Only Limited Damage

Photo #2 – Progression of Joist Damage/Each Joist, Moving in from
The Edge, Shows Less and Less Damage

Photo #3 – Damage to Vertical Wall 2x4, Showing Termite "Tunneling" Damage with the Deterioration on the 2x4 Face Adjacent to The Exterior Panel (Not Shown)

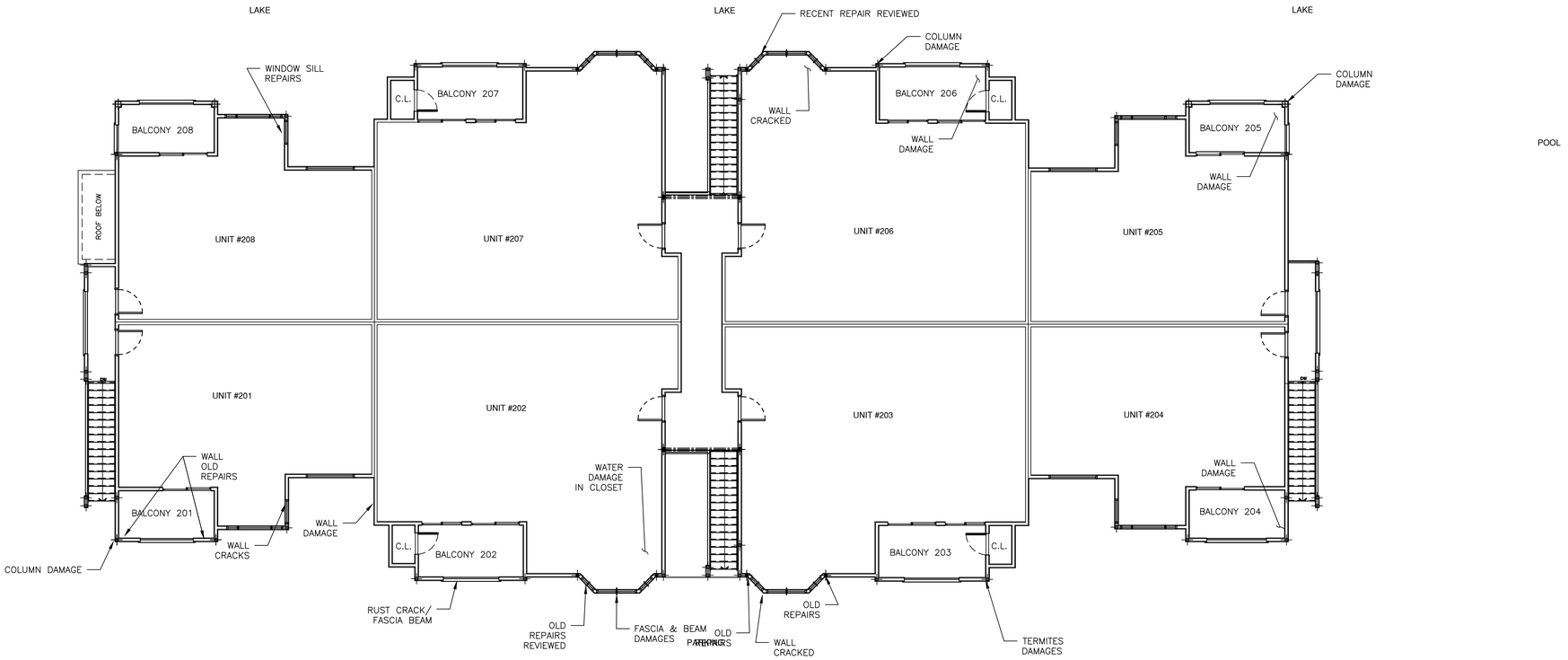
Photo #4 – The Exterior Balcony Beam Has Been Completely Damaged And Removed/This Balcony Structure Damage is Severe

Photo #5 – The Floor Joist Most Directly Adjacent to the Removed Wall Panel Shows No Signs of Damage

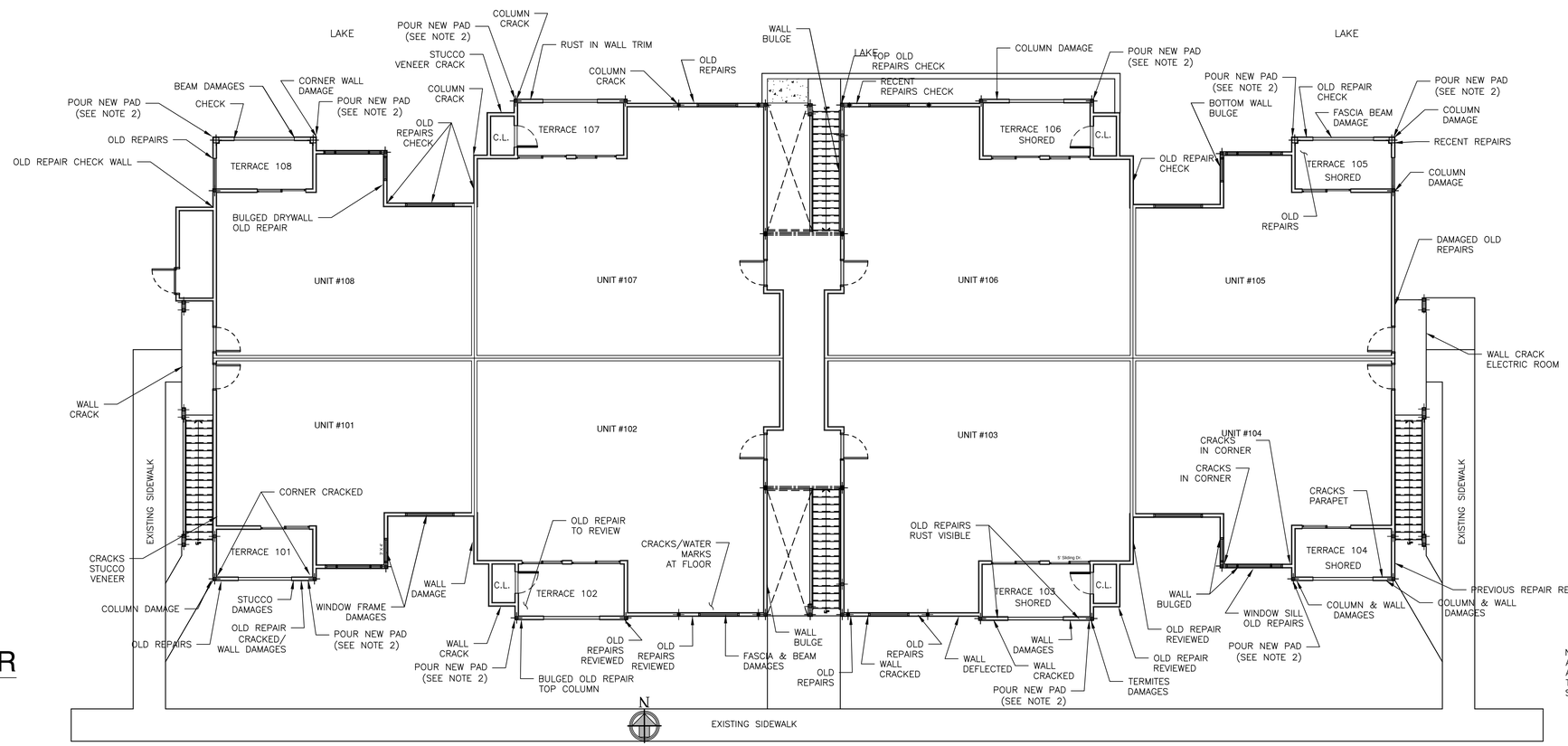
Photo #6 – Water Damage Is Evident, Having Affected the Sheathing at Both Corners

Photo #7 – Sheathing Stripped from Both Levels of Wall/Showing That the Extensive Damage to the First Level Wall Does Not Translate to the Second Floor Wall Structure

SECOND FLOOR
BLDG. #5



GROUND FLOOR
BLDG. #5



NOTES:
ALL LOCATIONS WHERE DAMAGES ARE FOUND WILL BE INVESTIGATED TO ASURE NO UNDERLYING STRUCTURAL DAMAGES.

Henry S Kreh Digitally signed by Henry S Kreh
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HERON POND CONDOMINIUMS

100 SW 83RD WAY - BUILDING 2
PEMBROKE PINES, FL 33025

DAMAGE SURVEY

REV	DESCRIPTION	DATE

PROJECT No.:	
DRAWN:	OL
CHECK:	HK
APPROVED:	HK
DATE:	8/9/2023

HENRY STEPHEN KREH LICENSE No. 39539 STATE OF FLORIDA PROFESSIONAL ENGINEER

HENRY S. KREH
FL. P.E. #39539

S-3.0