



August 31st, 2023

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

Re: Heron Pond Condominium
Structural Conditions – Building #5

Dear Building Officials:

Over the last couple of weeks, a representative of ACG Engineering Services, Inc. (ACG), acting on my behalf, has surveyed Building #5 at the Heron Pond Condominium complex. We have attached a copy of the preliminary drawings that we will be having the Contractor submit, when in their final form, as part of a permit application. Sheet S3.00, within that set, reflects our survey findings.

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 recently 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, in the form of termite and water related wood deterioration, is clearly significant; the likelihood of termite and/or water related damage extending into the building's interior is considerable.



- Of additional concern is that approximately 10% of recently repaired sections are already showing new signs of deterioration.
- All of the balcony stack structures, including joists, beams, and columns, appear to have sustained significant structural damage.
- Some of the apparently compromised sections of exterior wall appear to carry considerable 2nd floor and/or roof loads.

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

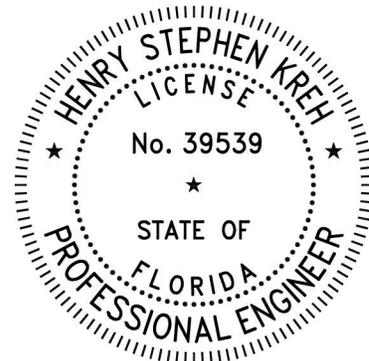
- Sections of floor and ceiling sheathing should be removed as required in the areas showing damage noted in Units #101, #103, #105, #205, and #208.
- All access to all balconies (both levels) must be eliminated until repairs have been made.
- All balcony ceilings should be removed to allow for visual observations of the second floor and roof structures.
- All second-floor balcony structures should be rebuilt.
- All roof trusses over the second-floor balconies shall be repaired as required.
- Damages that 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.
- Based on findings from the explorations to be performed, as described directly above, individual units may need to be completely vacated.

Based on our limited observations we do not know, with any level of certainty, how many additional conditions may exist that remain hidden under floors, above ceilings, and behind walls. Our recommendations provided above will allow for a much better understanding of the actual condition of the building's overall structure. Should our recommended destructive observations not be made within a month's time, we recommend that the entire building then be completely vacated.

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

Respectfully submitted,

Henry S. Kreh, P.E.
Vice President
ACG Engineering Services, Inc.
FL P.E. No. 39539/FL S.I. No. 736



STRUCTURAL REPAIRS

164 SW 83rd CT.

PEMBROKE PINES, FLORIDA 33025

BUILDING #5



LOCATION MAP
(NOT TO SCALE)

INDEX OF SHEETS:

| SHEET No. | DRAWING TITLE |
|-----------|---------------------------|
| 1 | S-1.00 COVER PAGE & INDEX |
| 2 | S-2.00 NOTES AND SHORING |
| 3 | S-3.00 DAMAGE SURVEY |
| 4 | S-4.00 DETAILS |
| 5 | S-5.00 DETAILS |

| PROJECT No: | DATE |
|---------------|------|
| DRAWN: OL | |
| CHECK: HK | |
| APPROVED: HK | |
| DATE: 8/29/23 | |

GENERAL NOTES

GOVERNING CODE: THE FLORIDA BUILDING CODE 2020 7TH EDITION

CONCRETE
 COMPRESSIVE STRENGTH AT 28 DAYS: 4000 PSI FOR ALL CONCRETE
 GROUT: 3000 PSI

COVER:
 BEAMS AND COLUMNS: 1-1/2"
 INTERIOR SLABS: 3/4"
 EXTERIOR SLABS: 1-1/2"
 FORMED CONCRETE IN CONTACT WITH GROUND: 2"
 CONCRETE POURED AGAINST GROUND: 3"

- GENERAL:**
 A. TYPICAL DETAILS: DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WEATHER OR NOT THEY ARE KEYED IN AT EACH LOCATION.
 B. THE ENGINEER OF RECORD (EOR) DOES NOT POSSES NOR PRESUMES TO ANY KNOWLEDGE OR EXPERTISE IN MATTERS RELATED TO JOB SITE EMPLOYEE SAFETY, OSHA OR LABOR LAW REQUIREMENTS. SAFETY AND COMPLIANCE WITH OSHA OR LABOR LAW REQUIREMENTS ARE THE ABSOLUTE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE CONSULTANTS THAT ARE HIRED BY THE CONTRACTOR TO ADDRESS THESE MATTERS.
 C. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH SPECIFICATIONS, ARCHITECTURAL, MECHANICAL DRAWINGS AND FIELD CONDITIONS, IF THERE IS A DISCREPANCY BETWEEN THEM IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF RECORD PRIOR TO FABRICATION OR INSTALLATION. UNLESS OTHERWISE DOCUMENTED IN WRITING BY THE EOR THE CONTRACTOR SHALL ASSUME THE STRICTER REQUIREMENTS OF CONFLICTING PROVISIONS BETWEEN THE DRAWINGS AND SPECIFICATIONS.
 D. DO NOT SCALE DRAWINGS, USE DIMENSIONS AND FIELD VERIFY BEFORE FABRICATION OR INSTALLATION.
 E. EXISTING CONDITIONS: DRAWINGS HAVE BEEN PREPARED BASED ON AVAILABLE KNOWLEDGE OF EXISTING CONDITIONS. IF DURING DEMOLITION, EXCAVATION OR CONSTRUCTION, ACTUAL CONDITIONS ARE DISCOVERED TO DIFFER FROM THOSE INDICATED ON DRAWINGS, THE EOR SHALL BE NOTIFIED.
 F. ALL EXISTING DIMENSIONS AND LOCATIONS OF EXISTING STRUCTURES SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY FIELD MEASUREMENTS. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO THE EOR.

REINFORCING STEEL:
 REINFORCING BARS SHALL CONFORM TO ASTM A-815 GRADE 60.
 WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND SUPPORTED ON SLAB BOLSTERS SPACED AT 3'-0" O.C.

LUMBER GRADE & SPECIES:
 A. ALL JOIST LUMBER SHALL HAVE A MIN. STRESS GRADE OF Fb=750 PSI.
 B. ALL WOOD USED IN THIS PROJECT SHALL BE PRESSURE TREATED WOOD.

DESIGN CRITERIA:
 LIVE LOAD: 40 PSF (FLOOR)
 60 PSF (BALCONY)
 40 PSF (STAIRS)
 50 PLF (GUARDRAILING) OR
 200 LBS PERPENDICULAR TO RAIL
 SUPERIMPOSED DL: 25 PSF.
 WIND: PER ASCE 7-16/CATEGORY II/EXPOSURE "C"/WIND VELOCITY 170 MPH.

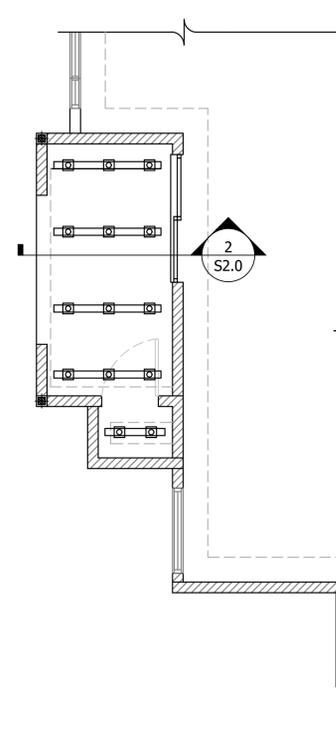
SHORING AND RE-SHORING:
 ALL SHORING, RE-SHORING AND TEMPORARY BRACING REQUIRED IN THIS PROJECT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA AND APPROVED BY THE E.O.R.
 THE GENERAL CONTRACTOR IS THE ULTIMATE RESPONSIBLE PARTY FOR THE SHORING, RE-SHORING AND TEMPORARY BRACING OF THE PROJECT. THE CONTRACTOR SHALL BE SATISFIED WITH THE INSTALLATIONS OF ALL THE REQUIRED ITEMS RELATED TO THE SHORING DURING CONSTRUCTION.

SAFETY OSHA AND LABOR LAWS
 THE ENGINEER OF RECORD (EOR) DOES NOT POSSES NOR PRESUMES TO ANY KNOWLEDGE OR EXPERTISE IN MATTERS RELATED TO JOB SITE EMPLOYEE SAFETY, OSHA OR LABOR LAW REQUIREMENTS. SAFETY AND COMPLIANCE WITH OSHA OR LABOR LAW REQUIREMENTS ARE THE ABSOLUTE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE CONSULTANTS THAT ARE HIRED TO ADDRESS THESE MATTERS.

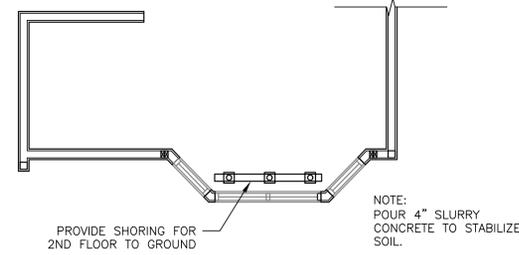
SCOPE OF WORK

The Scope of Work to be performed under the terms of this Contract includes furnishing all materials, labor, services, utilities, permit fees, supervision, tools, and equipment required or incidental to the Project. All dimensions are to be verified in the field by the Contractor. The work will include, but will not necessarily be limited to, the following elements:

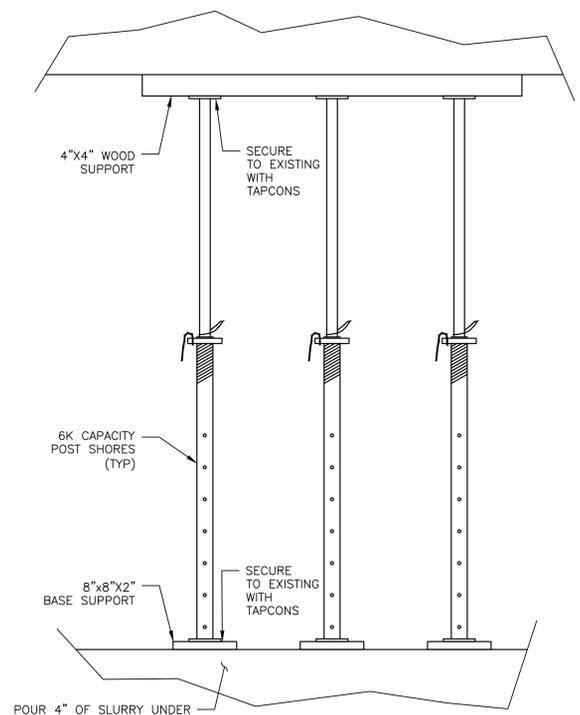
- The building shall have a pre-construction treatment against subterranean termites in accordance with the rules and laws established by the Florida Department of Agriculture and Consumer Services. A certificate of compliance shall be issued to the Building Dept. by the licensed pest control company performing the treatment.
- Mobilization of equipment and materials as necessary in locations approved by the Owner. Care should be taken to minimize impact on traffic and impedence on common areas of the Condominium.
- Protection of building components, such as curbs, windows, railings, light fixtures, etc., from potential damage caused during the construction project.
- Installation of shoring in accordance with ACG Engineering Services Inc. drawings where necessary, or as directed by the Engineer, prior to any concrete demolition. Shoring is to remain in place until the Engineer authorize in writing its removal.
- Repair of deteriorated structural elements, in locations directed by the Engineer and in accordance with these Specifications. Engineer will advise and approve the limits and extents of repair excavations, as well as repair sequencing during construction inspections. Only materials per this Specification are to be used unless specifically approved by the Engineer.
- All areas where the waterproofing of the building has been compromised due to repair or investigation will be protected to avoid water infiltration.
- Apply stucco finish to match existing for all repaired areas.
- Remove and reinstall all approved doors and windows, and accessories as required and in accordance with this specification. All new impact windows will require a separate permit by the Contractor.
- Cleaning and removal of debris from the site per this Specification
- Replacement of landscaping damaged because of Contractor's performance of work.



1 BALCONY SHORING - TYP.
 SCALE: N.T.S.



3 BAY WINDOWS SHORING - TYP.
 SCALE: N.T.S.



2 BALCONY SHORING - TYP.
 SCALE: N.T.S.

NOTE:
 SUPPORT ALL BALCONIES AND BAY WINDOWS USING POST SHORES AS SHOWN ON DETAILS 1 AND 2

| PROJECT No: | DATE: |
|-------------|---------|
| OL | |
| HK | |
| HK | 8/29/23 |

HENRY S. KREH
 FL P.E. #39539

