



August 31st, 2023

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

Re: Heron Pond Condominium
Structural Conditions – Building #14

Dear Building Officials:

Over the last couple of weeks, a representative of ACG Engineering Services, Inc. (ACG), acting on my behalf, has surveyed Building #14 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:

- There are signs of water damage at the bay window of Unit #201.
- There is a section of sagging floor in Unit #202.
- The flooring in Unit #206 shows signs of damage that may reflect structural issues underneath.
- There are water marks in the ceiling of Unit #207.
- There are cracks in the ceiling of Unit #103.
- There are signs of termite and water damage in both Units #105 and #106.
- There are at least 94 different locations around the building where damage has been visually detected, involving all 16 units.
- Additionally, signs of previous repairs have been noted at 21 other locations around the building.
- There are signs of damage 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**:

- The water damage in Unit #201 may be a sign that significant structural damage exists.
- The sagging floor section in Unit #202 is very likely a sign of weakened floor joists below.
- The fact that the Pergo flooring in Unit #206 is damaged may hint at structural concerns beneath the flooring.
- Water marks in the ceiling of Unit #207 suggest that water has penetrated the roof and found its way to the ceiling, and therefore, the trusses above as well, maybe damaging them.
- Cracks in the ceiling of Unit #103 may reflect differential deflections between equally loaded adjacent joists, a sign of damaged, weakened joists.



- The termite damage and water damage in Units #105 and #106 create suspicion that water and termite damage may also exist in the floor joists that are located directly above.
- 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, 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:

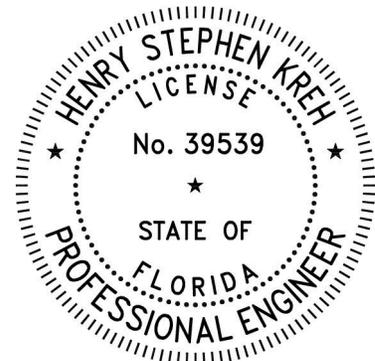
- The flooring and/or the ceiling should be removed, as required, to address the noted damages in Units #201, #202, #103, #105, #106, #206, and #207.
- All access to all balconies (both levels) must be eliminated until repairs have been made.
- All balcony ceilings should be removed to allow for visual 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 #14



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
5	S-6.00 DETAILS

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

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.

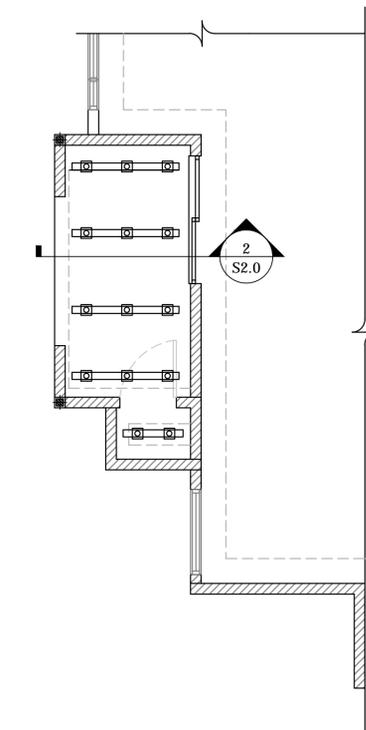
SAFETY OSHA AND LABOR LAWS

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.

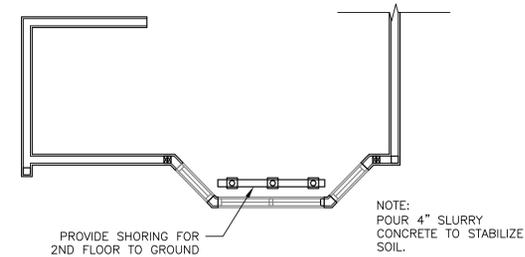
SCOPE OF WORK

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:

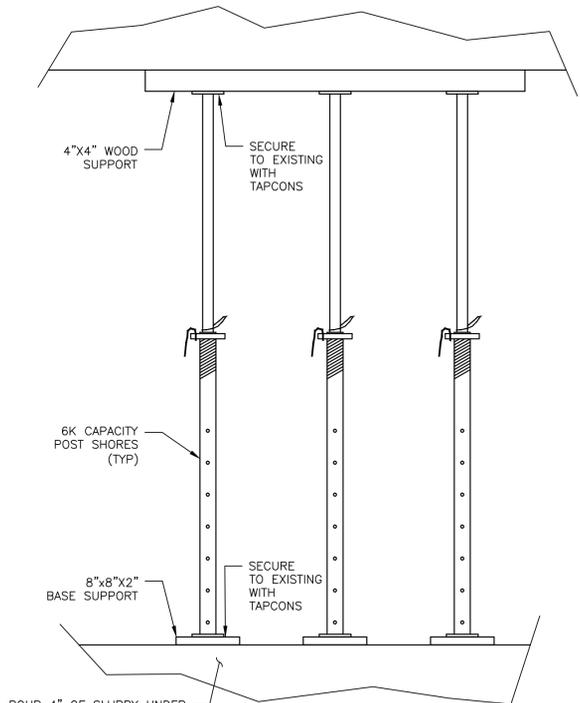
1. The building shall have a pre-construction treatment against subterranean termites in accordance with the rules and laws established by the Florida Department of Agriculture and Consumer Services. A certificate of compliance shall be issued to the Building Dept. by the licensed pest control company performing the treatment.
2. Mobilization of equipment and materials as necessary in locations approved by the Owner. Care should be taken to minimize impact on traffic and impedance on common areas of the Condominium.
3. Protection of building components, such as curbs, windows, railings, light fixtures, etc., from potential damage caused during the construction project.
4. 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.
5. 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.
6. All areas where the waterproofing of the building has been compromised due to repair or investigation will be protected to avoid water infiltration.
7. Apply stucco finish to match existing for all repaired areas.
8. 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.
9. Cleaning and removal of debris from the site per this Specification
10. 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.



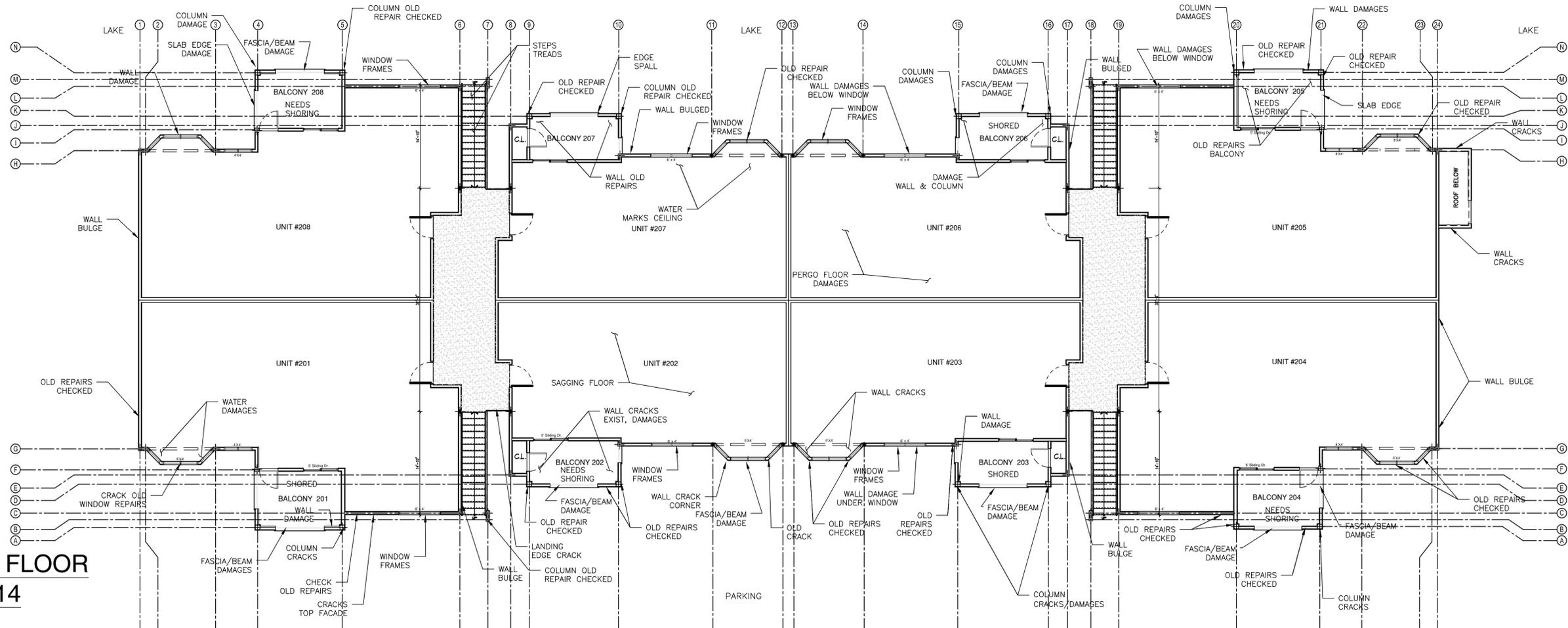
2 BALCONY SHORING - TYP.
 SCALE: N.T.S.

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

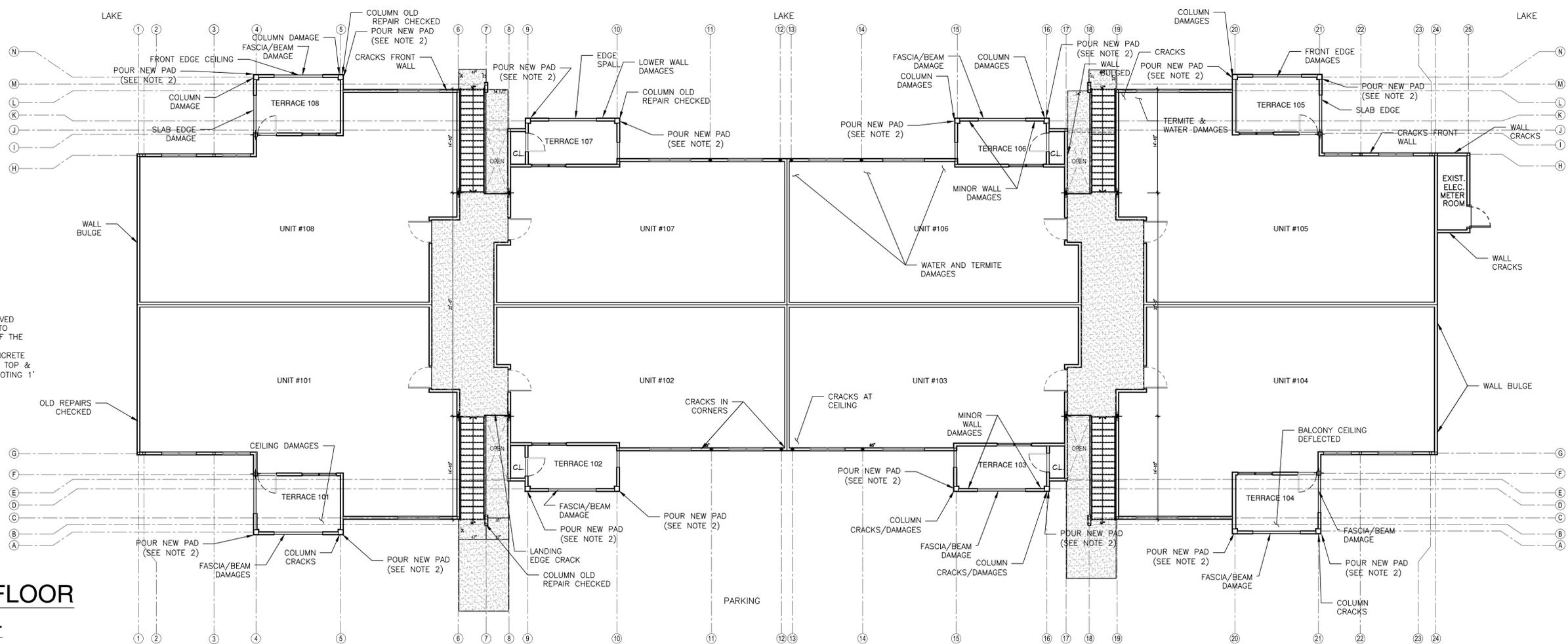
REV	DESCRIPTION	DATE

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

SECOND FLOOR
BLDG. #14



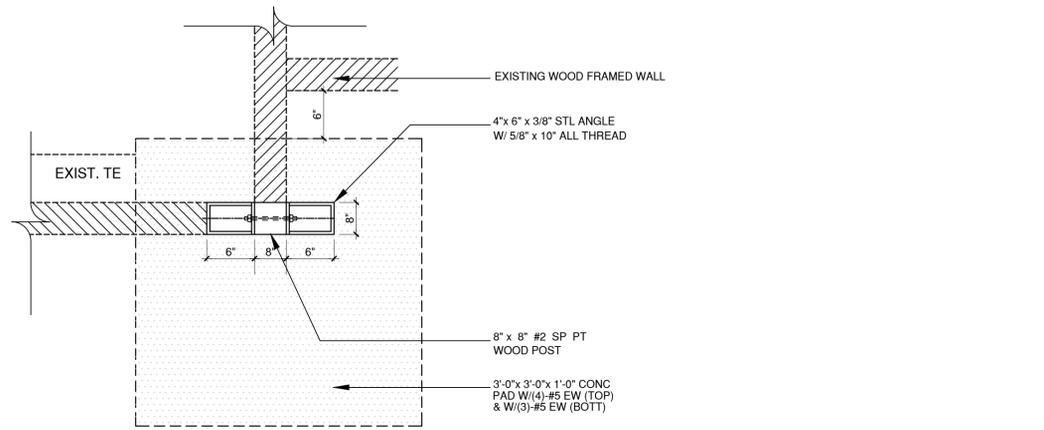
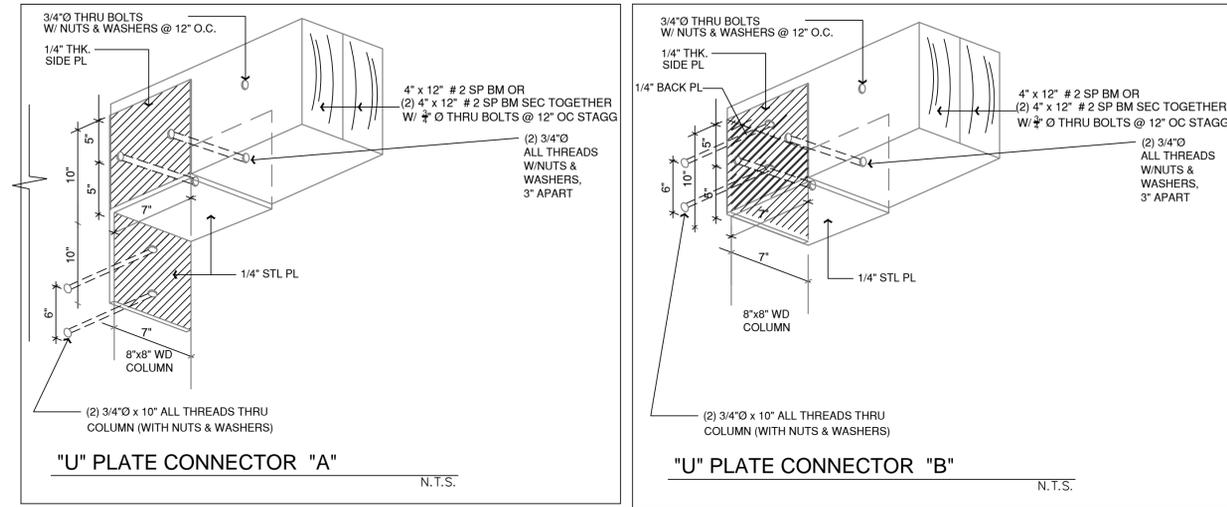
GROUND FLOOR
BLDG. #14



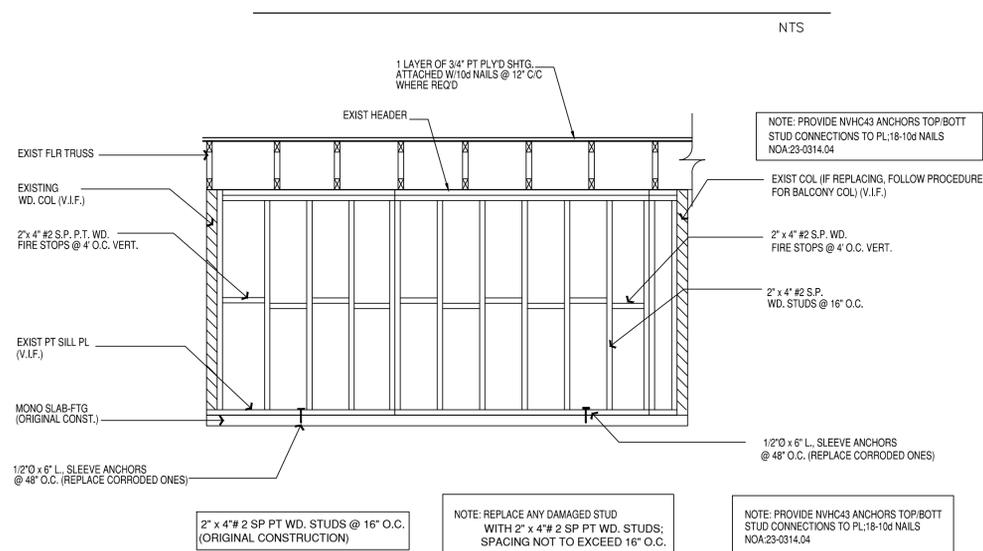
- NOTES:
1. DAMAGED AREAS OBSERVED WILL BE INVESTIGATED TO ACCESS THE EXTEND OF THE DAMAGE.
2. POUR 36"x36"x12" CONCRETE PAD REINFORCED 3-#5 TOP & 1-#5 BOT. E.W. (TOP OF FOOTING 1' BELOW GROUND).

DATE	DESCRIPTION	REV	OL	HK	HK	DATE
						3/18/2017

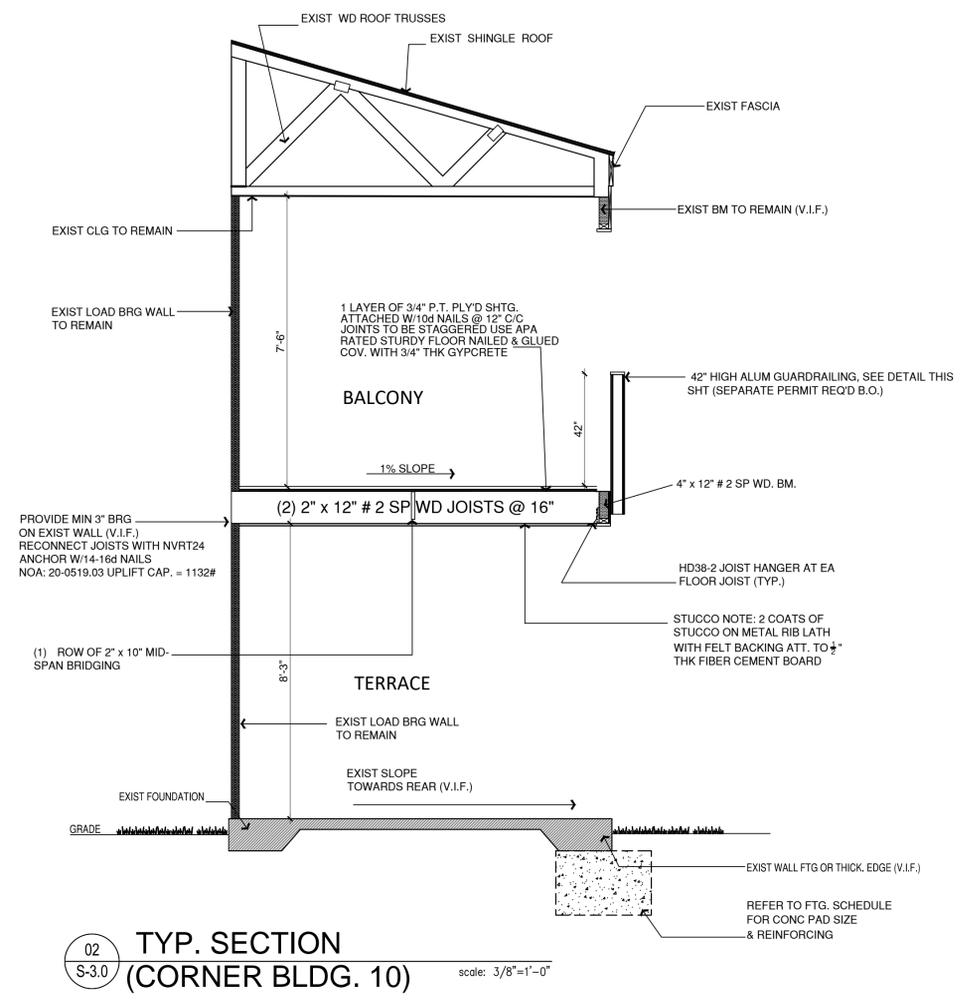
HENRY S. KREH
FL. P.E. #59539



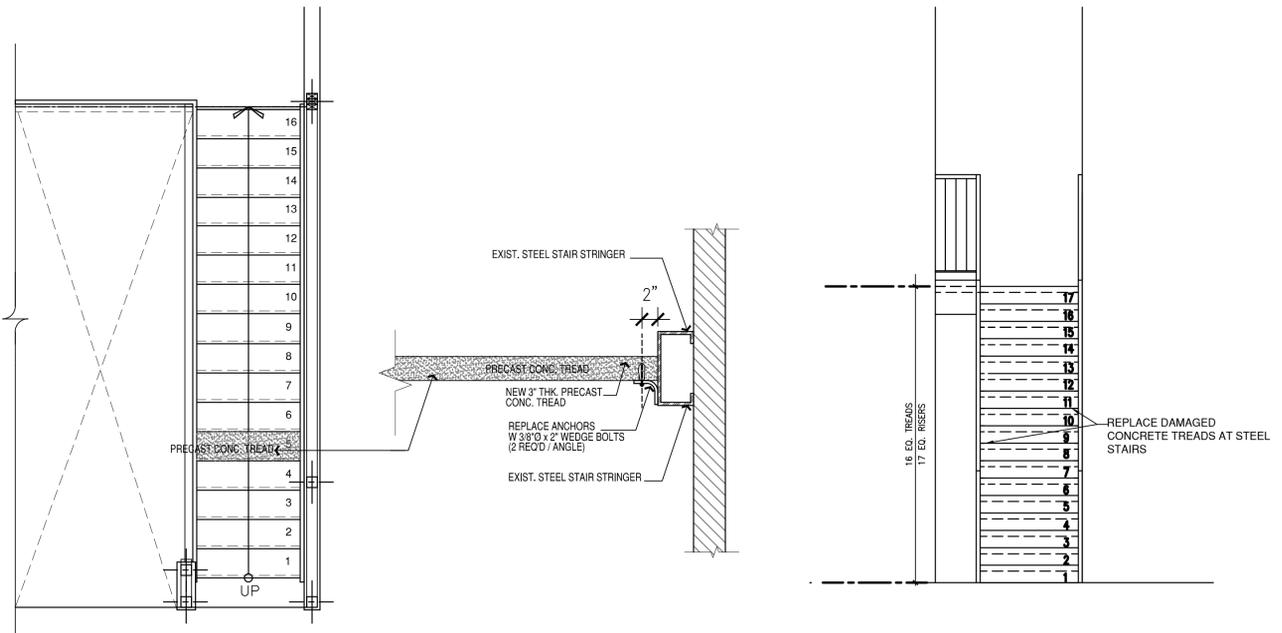
POST CONN DTL - PLAN VIEW



TYPICAL EXTERIOR WALL REPAIR



Typical Stair Tread Detail (BLDG. #10)

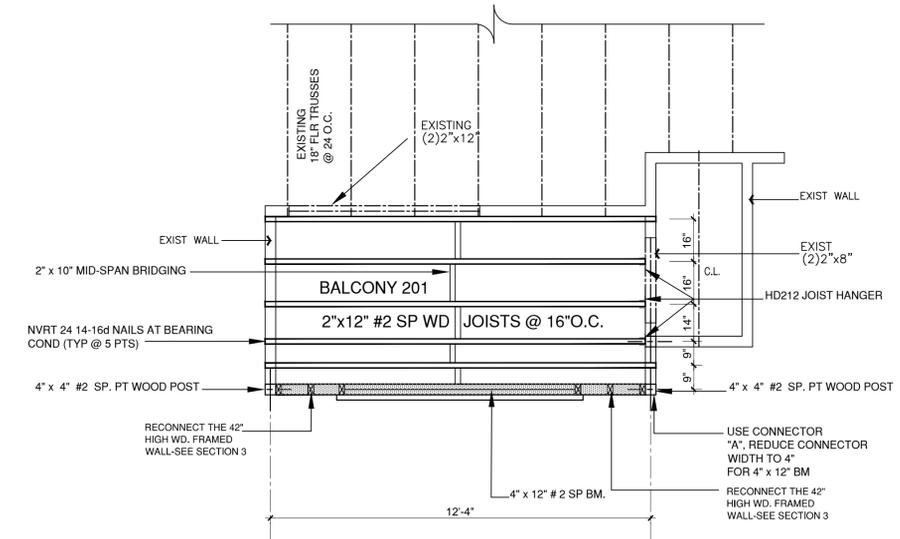
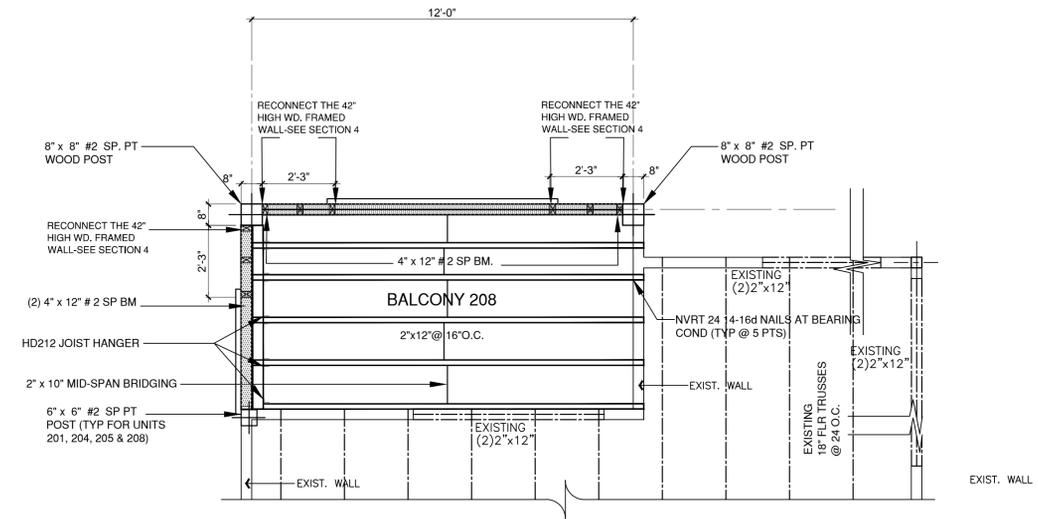
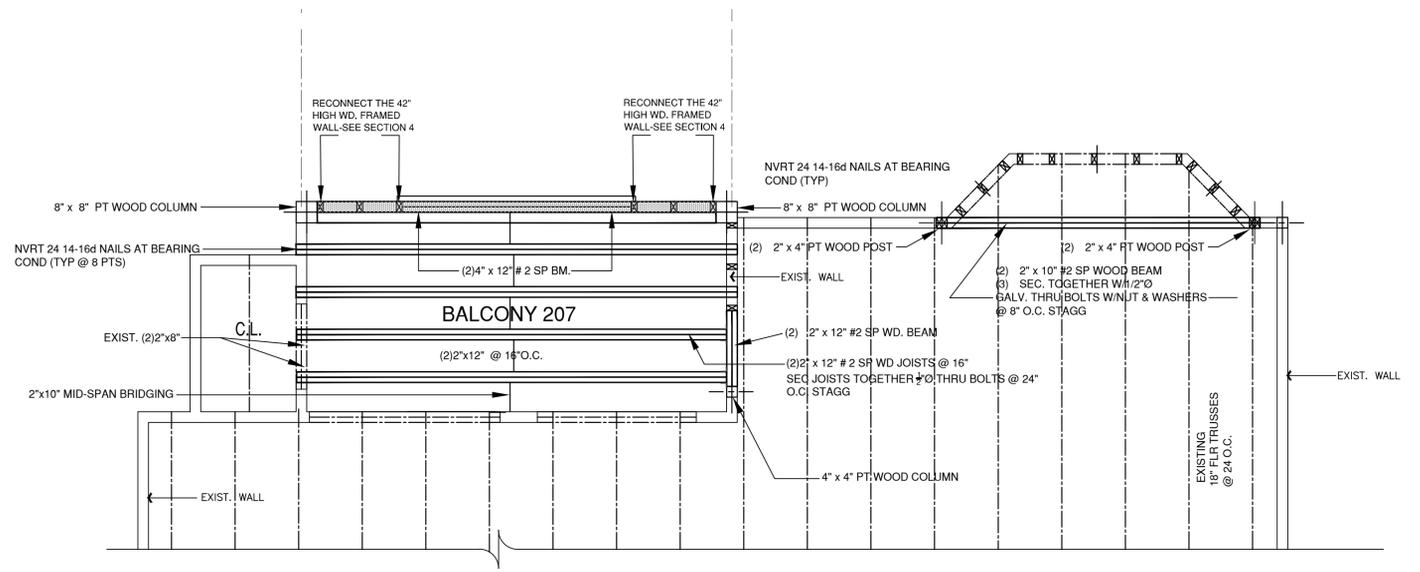


REV	DESCRIPTION	DATE

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DATE:	8/8/2023

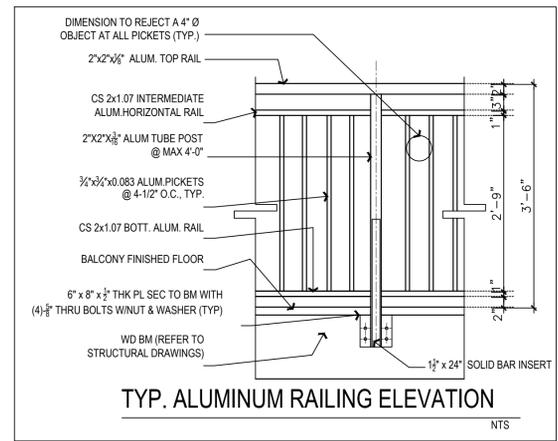
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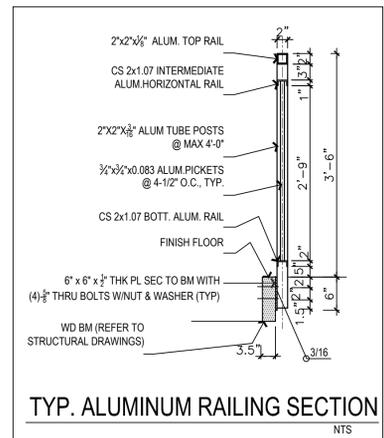
BALCONY FLOOR FRAMING PLAN

NTS



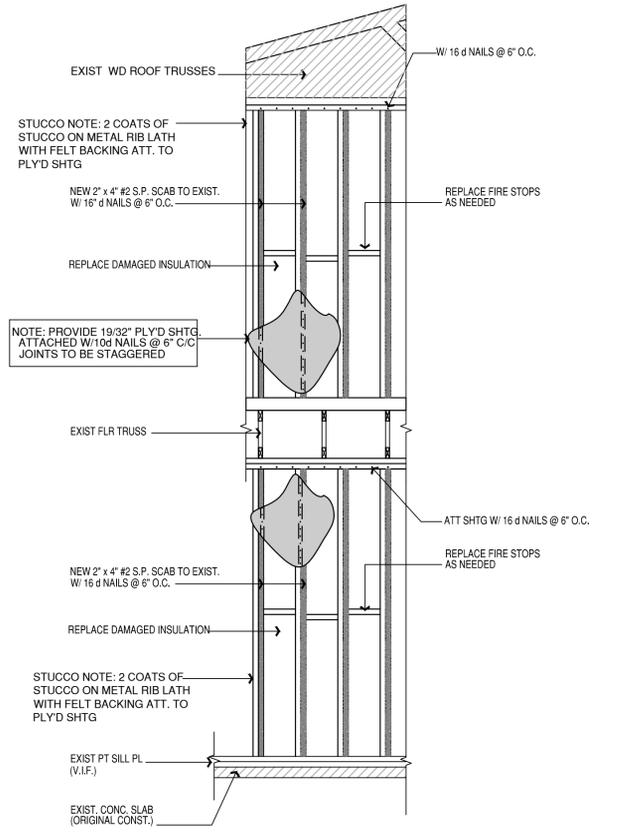
TYP. ALUMINUM RAILING ELEVATION

NTS

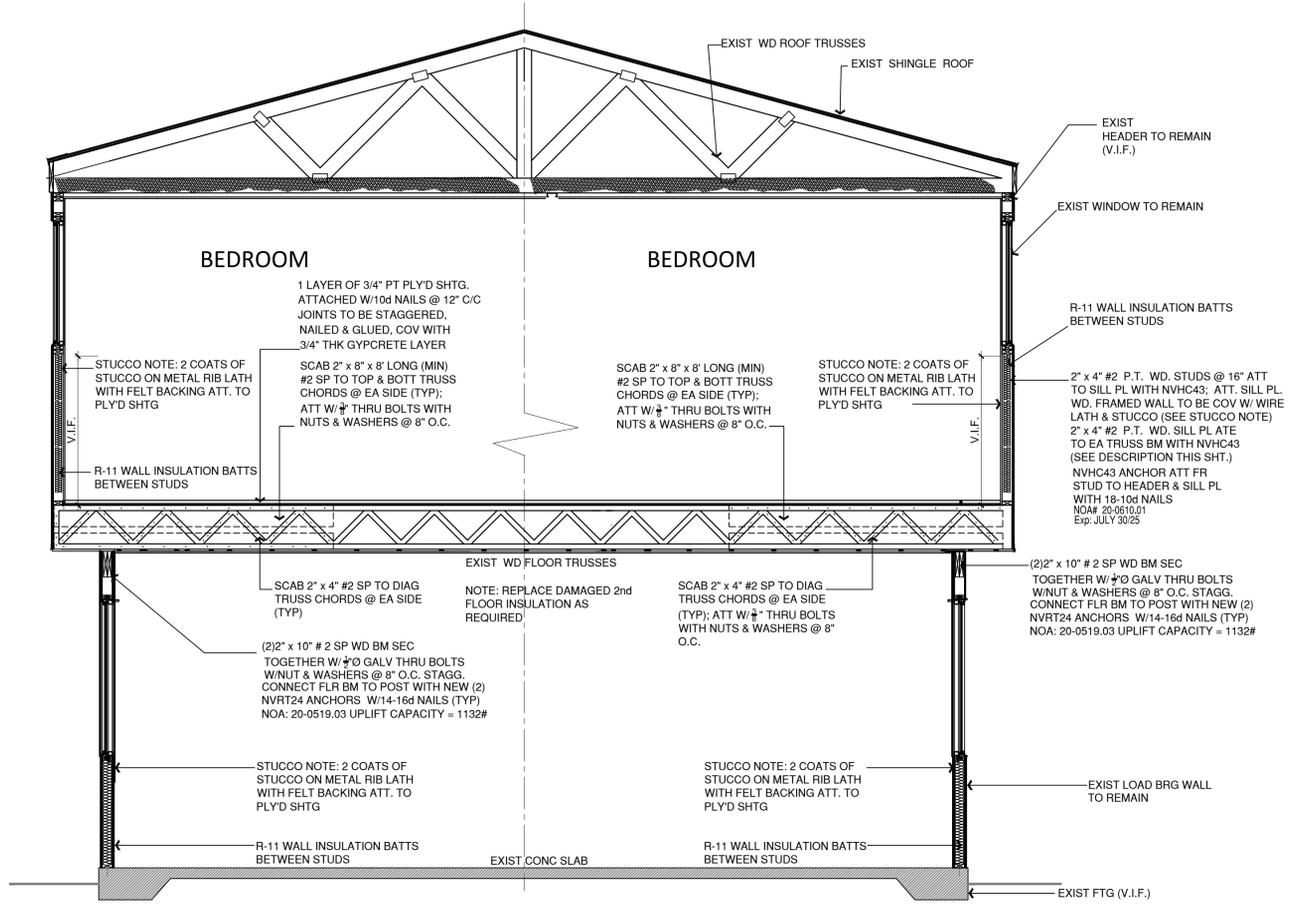


TYP. ALUMINUM RAILING SECTION

NTS



PLYWOOD & STUCCO REPAIR DTL.
NTS



01 Typical Wall Section (BAY WINDOW)
S-3.0 scale: 3/8"=1'-0"

PROJECT No.:	DATE:
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