



**STRUCTURAL ENGINEERING PROFESSIONALS, INC.**

CA 8539

*Structural, Mechanical & Civil Engineering Consultants*

# **PHASE 1 MILESTONE REPORT**

## **THE SENATE CONDOMINIUM**



**2500 PRESIDENTIAL Way**

**West Palm Beach , FL 33401**

**December 18, 2033**

***THE SENATE CONDOMINIUM ASSOCIATION***

*2500 PRESIDENTIAL WAY*

WEST PLAM BEACH, FL. 33401

**MILESTONE INSPECTION REPORT**

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5. EXHIBIT #2: BUILDING FLOOR PLANS
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December 18, 2023

## **THE SENATE CONDOMINIUM ASSOCIATION**

**2500 PRESIDENTIAL WAY**

**WEST PLAM BEACH, FL 33401**

### **MILESTONE REPORT**

#### **HISTORY AND SURVEY SUMMARY:**

The building was constructed in 1974 and consists of twenty-eight units located within a four-story structure. The structure consisting of reinforced concrete columns, walls and slabs is supported on spread footings as shown on the original building drawings (ref. **EXHIBIT NO. 1**) of this report. Two stairs, one at each end of the building and an elevator provide access to walkways at each floor level (ref. **EXHIBIT NO. 2**). The only means of access to the roof is provided by a ladder from the top floor through a hatch leading to the roof. Each unit has a cantilever balcony, which was inspected as part of this report.

Aside from a visual inspection, each balcony inspected was acoustically sounded to reveal any areas of potential structural concerns. The inspection balcony templates provided within this report indicate all areas of concern and needing repair.

Each balcony from the second floor has a screened enclosure and hand rails located on the outside of the screening. Due to the location of the railings, the railings could not be inspected. The ground floor units only have screen enclosures without the any railings. All sliding and fixed windows leading to the balconies appear to be the original fixtures installed in 1974. All caulking should be inspected and replaced around the perimeter of all frames as needed to avoid water intrusion into the units. As the original windows are not high impact designed, several units have installed storm shutter for additional protection as shown on the balcony templates.

All exposed surfaces of the building are coated with a stucco finish and painted. Aside from some minor wall and column cracks, the stucco appears to be in good condition without any major deterioration noted. Of all the balconies inspected, most were tiled while a few were painted or covered with carpet. In most cases, many of the tiled balconies revealed areas of hollow tiles. It was also noted that most of the hollow sounded tiles were prevalent along the sliding glass doors of the unit. In most cases where the balconies were painted, little or no signs of major floor cracks were noticed, carpet areas could not be inspected.

In many cases the hollow sounded tiles are caused by the bottom screws securing the Glass sliding door tracks from not being sealed. These fasteners are rusted, thus allowing water intrusion into the track and eventually under the tiles. This is one of the major causes of delamination of the tile thin set losing its bond between the tiles and the concrete. Another cause of the hollow sounding is the result of concrete spilling under the tiles which also causes a

void between the bottom of the tile and the concrete surface. In most cases where hollow tiles were noted in sporadic areas, we overlook them and did not recommend the removal of the tiles. We do, however, recommend periodically inspections of those areas by a professional engineer.

**Note 'A':** In areas where all or most of the tiles are hollow sounding, we recommend that all the tiles be removed, the balcony be ground down to bare concrete, inspected, repaired as needed, and waterproofed.

**ASSOCIATION ACTION TO BE TAKEN:**

At this time, the Association should be concerned with the balconies shown on the survey drawings that exhibit the following items of repair:

1. Cracks in the balcony slabs as noted.
2. Wall cracks as noted.
3. Edge repairs as noted.
4. Any balcony that has a carpet covering. The Association should require the removal of the carpeting and have the balcony inspected for cracks and spalls. Repairs should be made and the balcony waterproofed.
5. Spalls be repaired as noted.
6. Any balcony showing major cracked tiles or tiles that are buckled upward should have all tiles removed and the balcony inspected.
7. As a preventive maintenance item, the Association should schedule a Professional engineer to reinspect the balconies every three or four years to ensure the integrity of the tiles and any future problems.

The following summary of the existing balcony conditions is provided to the Association to outline the needed repair items and future inspections where there are existing hollow tiles.

**BUILDING 2500 / BALCONIES**

28 Units, 8 Units could not be inspected.

Unit 107: Crack at bottom of column.

Unit 201: Hollow tiles. All tiles need to be removed. (Ref. Note 'A').

Unit 204: Hollow tiles. All tiles need to be removed. (Ref. Note 'A').

Unit 205: Balcony to be waterproofed and refinished. (Ref. Note 'A').

Unit 206: Hollow tiles. All tiles need to be removed. (Ref. Note 'A').

Unit 405: Hollow tiles. All tiles need to be removed. Ref. Note 'A').

### **WALKWAYS:**

The first-floor slab on grade appears to be structurally sound without any floor cracks noted. The other three floor walkways exhibit numerous hairline cracks which should be repaired before any water intrusion reaches the reinforced concrete walkway and causes major spalls within the structure. Reference the walkway survey drawings for each walkway

### **WINDOWS AND SLIDING GLASS DOORS:**

All balcony windows and sliding glass doors were inspected in those units that were accessible. It appears that the windows and slides are the original units installed in 1974. All sliders, while working, do require some maintenance. The outside caulking around the fixed windows appears to be in good condition but should be replaced with the next building painting project.

### **ROOF INSPECTION:**

The existing roof system appears to be constructed using multiple plies of coal tar pitch applied to built-up membranes and a base sheet. The surfaces of these membranes were covered with an application of mineral aggregate, also adhered using coal tar pitch. The roof system was assumed to be installed over an unidentified insulation material. The perimeter of the roof system terminates against a combination of stucco covered concrete parapet walls and the modified bitumen flashed wood interior mansard walls. The roof system was designed with marginal slops, attempting to direct collected surface water towards a series of interior roof drains. There are also a series of emergency supper drains around the perimeter of the roof.

The current management could not indicate when the existing roof was installed. Going to Google Earth historical satellite imagery suggests that the current roof system was installed between 2006 and 2007, approximately seventeen years ago. Typically, a coal tar pitch built-up low slope roof system, in south Florida, will be effective for thirty-five years if preventive maintenance procedures are takes during this span.

Visually the roof system appears to be in a well-maintained condition. There is abundant evidence of an effective preventative program which has targeted the penetrations, base & curbs flashings, interior drain details, and surrounding concrete parapet walls. Based on our inspection, only the interior drains modified strike sheet should have a UV reflective coating applied during the next maintenance cycle.

During the last week of November 2023, a Moisture test was performed by ROOF SURVERY, INC. to obtain the overall moisture integrity, and as a leak source detection for this report. It is essential that the reinforced concrete roof be maintained dry and prevent any moisture from reaching the reinforced concrete deck and cause major spalls that could result in affecting the structural intensity of the roof system.

**CONCLUSIONS:**

Overall, the building appears to be in reasonably good condition. There are, however, several balconies that require some exploratory investigation and probable repair due to indications of possible edge damage or probably rebar corrosion under tile that is cracked, hollow or buckled. For those situations listed above, a Phase II report will need to be prepared once the investigations and/or repairs are complete.

Although more work is needed, we do not consider the current condition of the building indicative of an imminent structural failure. **Therefore, for the scope of this inspection and the areas that were able to be assessed, within a reasonable degree of engineering certainty our assessment did not reveal any structural damage that would compromise the safety of the building for the intended use or occupancy.**

Respectfully,

David T. Colston, P.E. SI

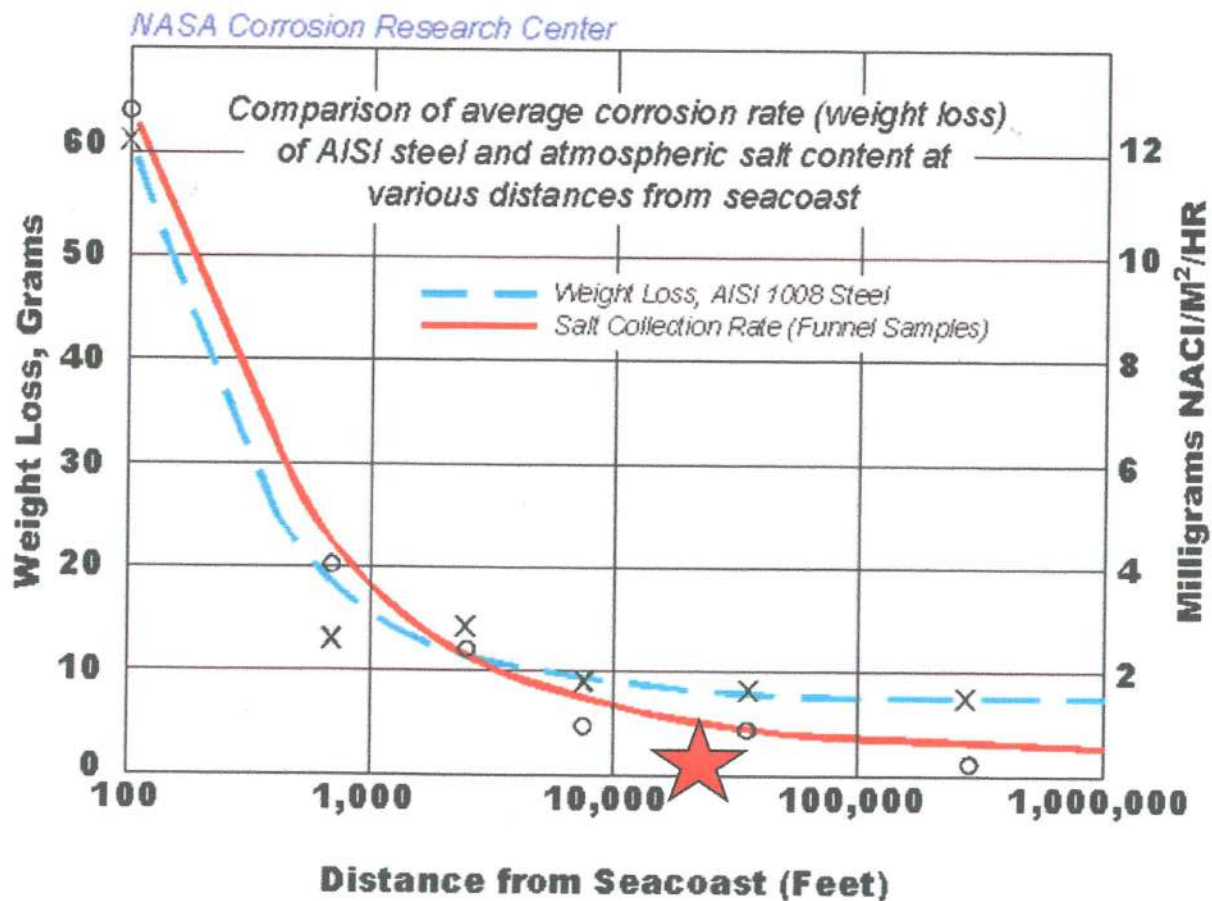
(Ltd) FL Reg 55501



## ADDITIONAL INSIGHTS

Over the last 24 years and 1700 clients, our firm has looked at thousands of balconies in Palm Beach, Broward, Dade, Martin, and St Lucie Counties. We've served as the Engineers of Record for over 400 restoration projects for similar buildings. Here are some general observations regarding damage found that probably apply to these buildings:

**Chloride Damage vs Distance from Ocean:** Below is a graph created by NASA several years ago based on data obtained from testing done at their research center here in Florida. The key take away here is that corrosion rates due to the coastal salt environment drop exponentially as you move inland, but the effects can still be significant 10 miles inland. These buildings are about 17,500 feet inland (3.3 Miles), giving you a salt collection rate of about  $1.2 / m^2\text{-Hr}$ . This is substantially less than a building right on the ocean, but salts are still present. The lower rate just means the salts accumulate much slower on the flat decks, delaying the start of corrosion damage until the building are older. We've seen edge damage associated with screened edges as far West as Wellington on similar buildings.



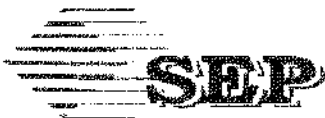
**Screen / Shutter Fasteners:** Typically, the screen enclosure and / or shutters along the edge cause edge problems eventually. The fasteners are typically Tapcons made from hardened steel that may or may not have had a sacrificial coating. Even though the fasteners may have been sealed with caulk when the screen was new, that sealant usually breaks down after 5 to 8 years. As the water starts to seep down past the fastener, the fastener will typically start to rust. As the rust happens, the fastener will first expand because rust is seven times the volume of steel. It will then lose volume and the salt water due to rain will seep down into the hole and out into the edge concrete, eventually causing the horizontal rebar along the edge to corrode. We did not observe much edge damage at this point, but you can expect to find some as time goes on.





### Exposed Glass Sliders:

Sliding glass doors will collect salt deposits over time even this far from the ocean. If the balcony is open and the door is exposed to blown rain, such as happens in South Florida on many summer afternoons, the salts that have collected on the doors are washed down into the door track. As with the sealants used on the screen systems, the sealant around the fasteners in the bottom track of the slider will also break down after a few years. And, just as above, the salt laden water will run down into the concrete directly under the door track. Usually, on a cantilevered balcony, you have rebar under the track Perpendicular to the door, just  $\frac{3}{4}$  to 1" down and spaced about 12 to 18" apart. That rebar will start to corrode after about 12 to 15 years, eventually becoming a problem under the track as the first expand, then start to reduce in size. They will eventually corrode completely in two. The corrosion starts under the track but moves outward as much as 2 feet from the door. (It also typically moves inward only about 6 to 8" under the air-conditioned space). This is why we hear hollow sounds and see cracked tile or buckled tile just in front of glass sliders. We also see doors where the track has risen upward due to the corroded steel and the door is now seized up or hard to open.



STRUCTURAL SAFETY INSPECTION REPORT FORM

12/18/2023

Name of Inspector: David Colston, P.E.

Telephone Number: 561/844-4060

Inspection Start Date: 11/1/2023 Inspection Completed Date: 11/28/2023

- No Repairs Required, Repairs Required outlined in attached inspection sheets, Immediate Repairs Needed, Restricted Use, Building Safe, Building Unsafe



Licensed Professional

Engineer / Architect Name: David Colston

Seal

License Number: FL No. 55501

I am qualified to practice in the discipline in which I am hereby signing. I affirm that I do not have an affiliation or other financial interest in the subject building(s).

Signature: Date: 12/12/2023

This report has been based upon the minimum inspection guidelines for building safety inspection for the County of West Palm Beach Building Department. To the best of my knowledge and ability, this report represents an accurate appraisal of the present condition of the structure, based upon careful evaluation of observed conditions, to the extent possible.

Table with 1 column and 9 rows: 1. DESCRIPTION OF STRUCTURE, a. Name on Title: The Senate Condominium Association, b. Street Address: 2500 Presidential Way, West Palm Beach, FL 33401, c. Legal Description: Four story structure, d. Owner's Name: The Senate Condominium Association, e. Owner's Mailing Address: 2500 Presidential Way, West Palm Beach, Florida 33401, f. Building Parcel ID: 74-43-43-07-02-0028, g. Building Code Occupancy Classification: R-3, h. Present Use: Residential



i. Gen. Description, Type of Construction:	<b>Building 2500 was constructed in 1974. It consists of 4 story Structure housing 28 residential units.</b>
j. Special Features:	<b>The building is constructed using reinforced concrete columns and floors. On the outside perimeter of the buildings, a CMU infill system encloses the building. All outside walls have a coat of stucco and are painted. The foundation for the Structure is supported on shallow spread footings. Each unit has a cantilever balcony and screened enclosure with a handrailing located between the outside of the screen and the outside edge of the balcony.</b>
k. Additional Comments:	<b>The two elevators located at the center of the building provide access to all floors of the building. Access to the roof is provided by a ladder from the top floor to a hatch on the roof. Means of egress is provided through two stairs, one located at the north side and the other at the south side of the building. Walkways at each floor provides entrance to each unit on the floor.</b>
l. Additions to Original Structure:	<b>NONE.</b>

<b>2. PRESENT CONDITION OF STRUCTURE</b>	
a. General Alignment (Note: good, fair, poor, explain if significant):	
1. Bulging:	<b>Good</b>
2. Settlement:	<b>Good</b>
3. Deflections:	<b>Good</b>
4. Expansion:	<b>Good</b>
5. Contraction:	<b>Good</b>
b. Portion Showing Distress (Note: beams, columns, structural walls, floor, roofs, other):	<b>Aside from some minor balcony cracks and hollow tiles, the building appears to be structurally sound.</b>
c. Surface Conditions (General conditions of finishes- noting cracking, spalling, peeling, signs of moisture penetration and stains):	<b>Of the twenty-eight units in the building, twenty were able to be inspected. The summary report at the front of this document reflects the conditions found while inspecting the units.</b>
d. Cracks (Note location in significant members. ID crack size as 'HAIRLINE' if barely discernable; 'FINE' if less than 1 mm in width; 'WIDE' if over 2 mm):	<b>Based on a visual inspection, several balconies and the walkways exhibit signs of hairline cracking.</b>



e. General extent of deterioration (cracking or spalling of concrete masonry, oxidation of metals, rotor borer attack in wood, etc.):

Aside from some wall cracks, edge and column repairs, there was no concrete spalls or reinforcement that required attention.

f. Previous Repairs or Patching:

Walkway patches were noted on several walkways. The original roof was replaced around 2006-2007 as seen on Google Earth Historical satellite imagery.

g. Nature of present loading indicate residential, commercial, other estimate magnitude:

RESIDENTIAL

h. Protection from undermining:

None noted

3. INSPECTIONS

a. Date of Notice of Required Inspection: 8/9/2023

b. Date(s) of actual inspection: 11/1/2023

c. Name and qualifications of individual submitting report: Mickey Westman, P.E., Florida License # 72085

d. Description of laboratory or other formal testing, if required, rather than manual or visual procedures:

None

e. Structural repair (Note either item 1, OR 2, below)

1. None Required:

2. Required (Describe and indicate acceptance):

Not Required

4. SUPPORTING DATA





a.  sheet written data:

**ROOF MOISTURE SURVEY FOR THE STRUCTURE**

b.  photographs

c.  drawings or sketches

**5. MASONRY BEARING WALL** (note good, fair, poor on appropriate lines)

a. Concrete Masonry Units (CMU): **GOOD**

b. Clay tile or Terracotta units: **GOOD**

c. Reinforced concrete tie columns: **GOOD**

d. Reinforced concrete tie beams: **GOOD**

e. Lintel: **GOOD**

f. Other type bond beams: **N/A**

g. Masonry finishes – **EXTERIOR**

1. Stucco: **NO DELAMINATED STUCCO WAS NOTICED.**

2. Veneer: **N/A**

3. Paint Only: **The building was painted within the past few years and shows no signs of ware or deterioration at this time.**

4. Other (Describe): **NONE**

h. Masonry finishes – **INTERIOR**

1. Vapor barrier: **N/A**

2. Furring and plaster: **N/A**

3. Paneling: **N/A**

4. Paint Only: **N/A**

5. Other (Describe): **N/A**

i. Cracks

1. Location (Note beams, columns, other):

**None noted except for some minor cracks in a few balconies and walkways.**

2. Description:

j. Spalling

1. Location (Note beams, columns, other): **NONE NOTED**

2. Description:

k. Rebar corrosion (Note appropriate line):

1. Nonvisible:

2. Minor, patching will suffice:



3. Significant, but patching will suffice: <input type="checkbox"/>
4. Significant, structural repairs required: <input type="checkbox"/>
5. Description:
1. Samples chipped out for examination in spall areas
1. None: <input checked="" type="checkbox"/>
2. Yes (describe color, texture, aggregate, overall quality):

<b>6. ROOF AND FLOOR SYSTEM AND WATERPROOFING</b>
a. Roof:
1. Description (flat, slope, type roofing/deck, condition): <b>The existing roof was installed in either 2006 or 2007 according to Google Earth historical satellite imagery. The roof system appears to be constructed using multiple plies of coal tar pitch, applied built-up membranes and a base sheet. The surface of these membranes is covered with an application of mineral aggregate, also adhered using coal tar pitch. It also appears that the roof system was installed over an unidentified insulation material.</b>
2. <b>All AC units are supported on metal/pipe frames above the roof surface. Each support member is fully waterproofed to prevent moisture from entering the structural deck below.</b>
3. Types of drains, scuppers, and conditions: <b>Over the roof, a series of roof drains are located in the low areas of the roof. In addition, a series of emergency scuppers are located through the parapet walls. Along the perimeter of the roof a CMU parapet wall is constructed between the mansard enclosures. The base flashing membranes are covered with an anchored metal counter flashing detail. Typically, a coal tar pitch built-up roof in south Florida will be effective for thirty-five years if properly maintained. At this time, the roof system appears to be in good condition, well-maintained. As shown on the graphic interpretation sheet in the Moisture Testing Report, there was small-isolated areas of subsurface water detected within the roof system materials.</b>
b. Floor System(s)
1. Description (type of system framing, materials, spans, condition): <b>Each floor and the roof are constructed using reinforced concrete. Perimeter and interior beams support the reinforced concrete floors and roofs in the building.</b>
c. Inspection (Note exposed areas available for inspection, and where it was found necessary to open ceilings, etc. for inspection of typical framing members: <b>NONE</b> )
d. Waterproofing:



1. Have finishes been added after construction? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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<b>7. STEEL FRAMING SYSTEM</b>
a. Description: N/A
b. Exposed Steel (Describe condition of paint and degree of corrosion): N/A
c. Concrete or other fireproofing (Note any cracking or spalling and note where any covering was removed for inspection): N/A
d. Elevator sheave beams and connections, and machine floor beams (Note condition): N/A

<b>8. CONCRETE FRAMING SYSTEM</b>
a. Full Description of Structural System: <b>The building is constructed using reinforced concrete beams and columns. All columns and walls are supported on shallow spread footings. There were no visible signs of any floor, beam, or column deterioration in the structure.</b>
b. General Condition: <b>All areas viewed appear to be structurally sound.</b>
c. Cracking (Check appropriate line and describe if present):
1. Nonvisible: <input checked="" type="checkbox"/>
2. Minor, patching will suffice: <input type="checkbox"/>
3. Significant, but patching will suffice: <input type="checkbox"/>
4. Significant, structural repairs required: <input type="checkbox"/>
5. Location and Description of members affected and type of cracking:
d. Rebar Corrosion (Check appropriate line and describe if present):
1. Nonvisible: <input checked="" type="checkbox"/>
2. Minor, patching will suffice: <input type="checkbox"/>
3. Significant, but patching will suffice: <input type="checkbox"/>
4. Significant, structural repairs required: <input type="checkbox"/>

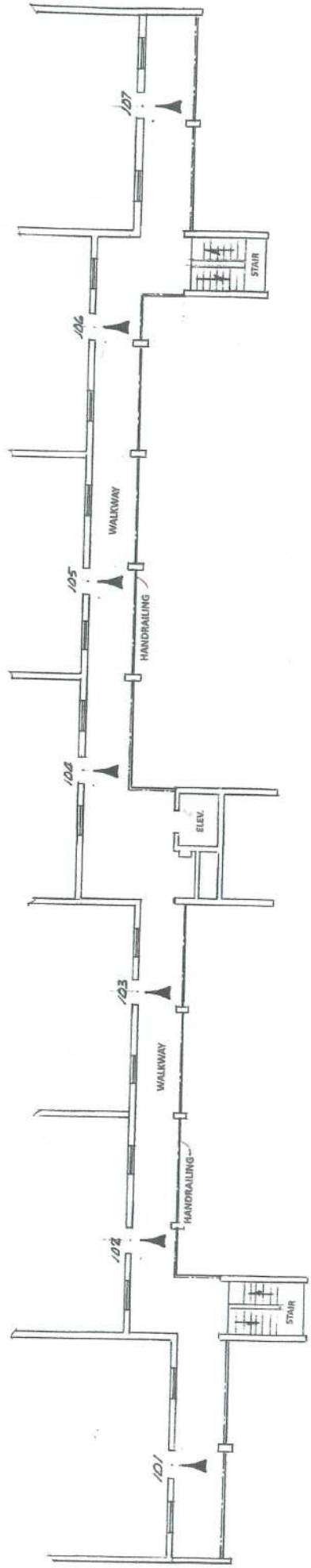


5. Location and Description of members affected and type of corrosion: <b>NONE NOTED.</b>
e. Samples chipped out in spall areas:
1. None: <input checked="" type="checkbox"/>
2. Yes (Describe color, texture, aggregate, overall quality):

<b>9. WINDOWS</b>
a. Type (Wood, steel, aluminum, jalousie, single/double hung, casement, awning, pivoted, fixed, other): <b>All windows and sliding glass doors appear to be the original doors and windows installed when the building was erected in 1974. Some of the owners elected to install storm shutters either against the screen enclosures or at the sliding glass doors and windows.</b>
b. Anchorage (Type and condition of fasteners and latches): <b>N/A</b>
c. Sealant (Type and condition of perimeter sealant and at mullions): <b>Continuous caulking around all frames and masonry units and balcony floors. The existing caulking appears to be in good condition but should be inspected at the next building painting and replaced as needed.</b>
d. Interior seals (Type and condition at operable vents):
e. General Condition: <b>N/A</b>

<b>10. WOOD FRAMING</b>
a. Type (fully describe if mill/light construction, major spans, trusses): <b>N/A</b>
b. Note metal fittings and condition (angles, plates, bolts, pintles, other): <b>N/A</b>
c. Joists (note if well fitted and still closed): <b>N/A</b>
d. Drainage (Note accumulations of moisture): <b>N/A</b>
e. Ventilation (Note any concealed spaces not ventilated): <b>N/A</b>
f. Note any concealed places opened for inspection: <b>NONE</b>
g. Areas of Other Concerns: <b>NONE</b>





*NOTHING NOTED*

**BUILDING 2500: FIRST FLOOR WALKWAY**

Structural Engineering Professionals, Inc.			
PROJECT:	THE SENATE CONDOMINIUMS		
TITLE:	DAMAGE SURVEY		
COVER:	TILE	SPRAY DECK	OTHER:
			DATE: 12/11/2023
			DWG. NO.:

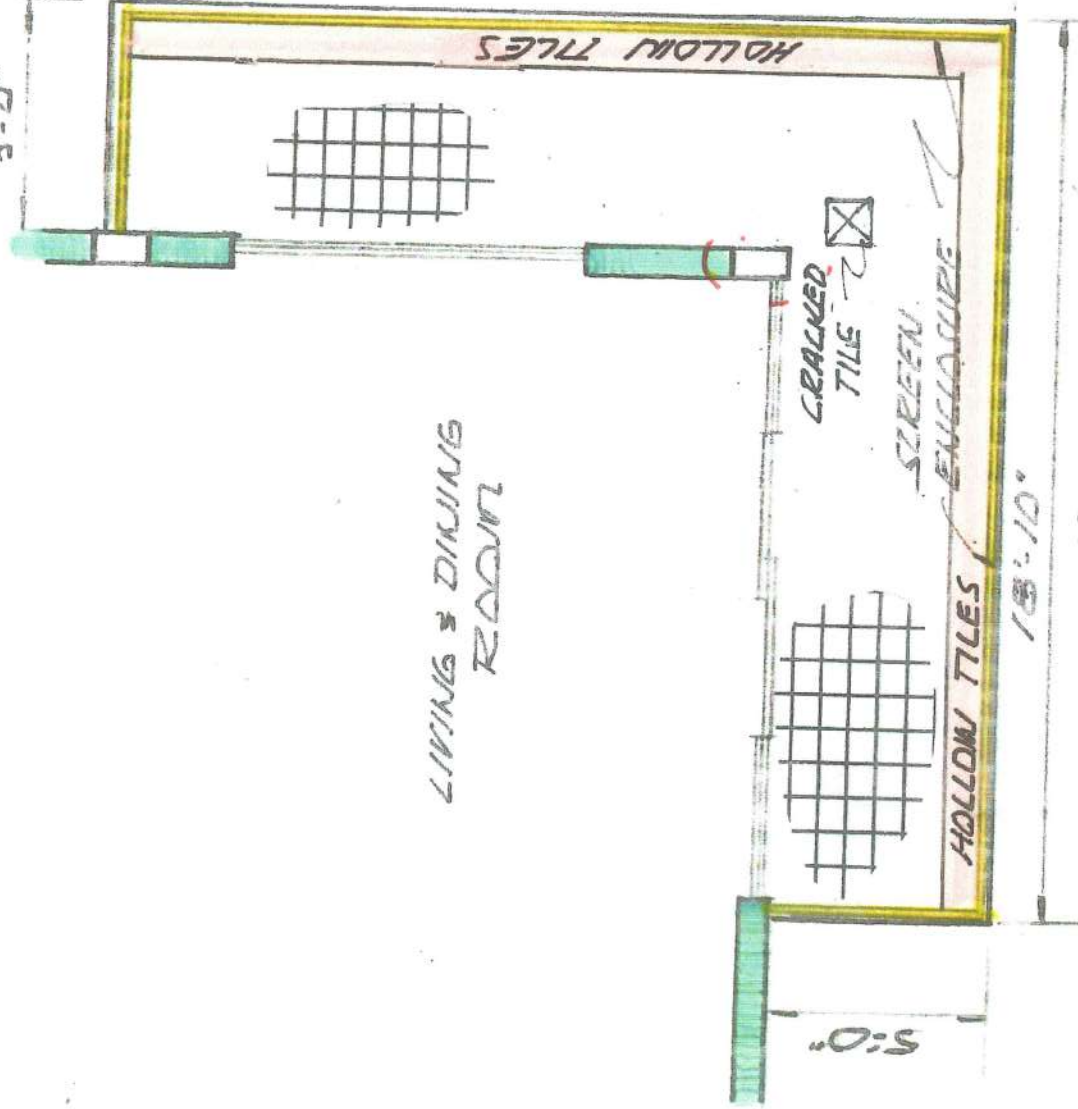
5'-0"

20'-4"

LIVING & DINING ROOM

5'-0"

13'-10"



BUILDING NUMBER 2500

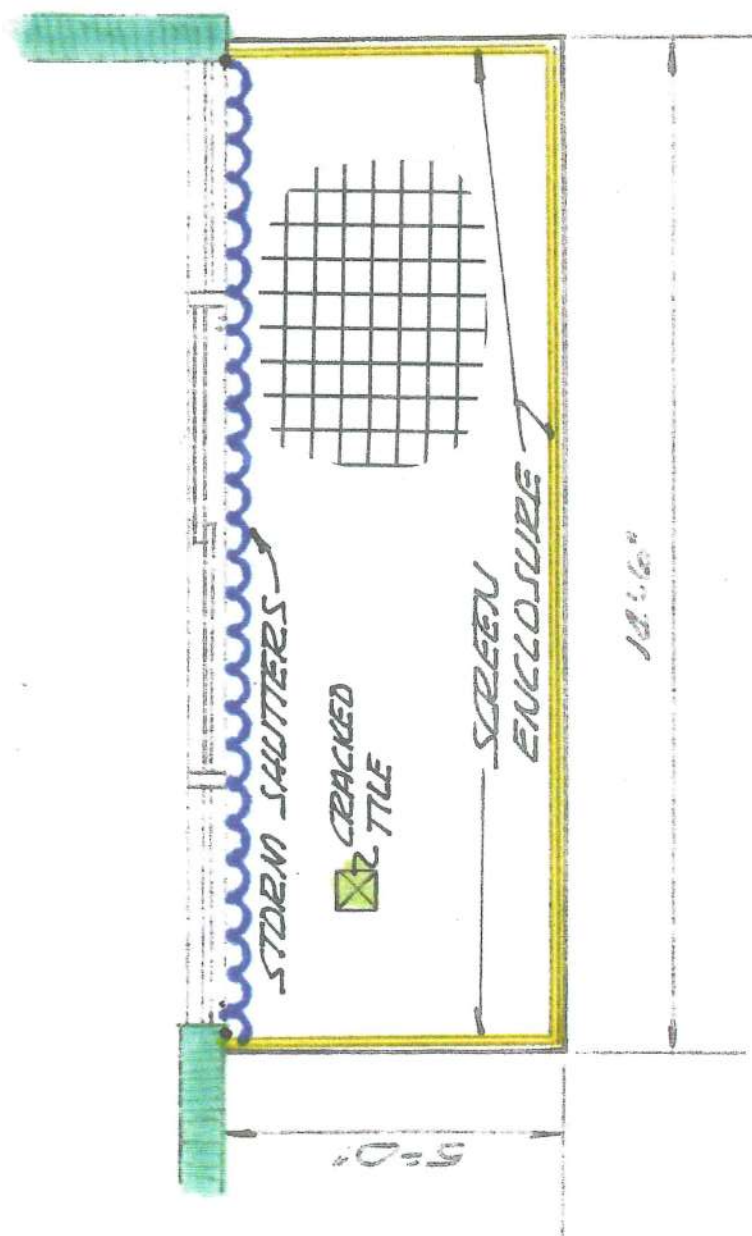
Structural Engineering Professionals, Inc.

PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY  
 COVER: SPRAY DECK OTHER: PAINTED

UNIT No: 101 DATE: NOV. 18, 2023 DWG. NO.

LEGEND

- CRK - CRACK
- COL - COLUMN REPAIR
- E - EDGE REPAIR
- FD - FULL DEPTH REPAIR
- PD - PARTIAL DEPTH REPAIR
- RL - RAILING REMOVAL
- ST - STUCCO DAMAGE
- SGD - SLIDING GLASS DOOR
- SM - SHUTTER REMOVAL
- OH - OVERHEAD REPAIR
- OS - OVERHEAD SPALLS
- OE - OVERHEAD EDGE REPAIR
- DT - DELAMINATED TILE
- PI - POSSIBLE INTRUSION



BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.

PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY

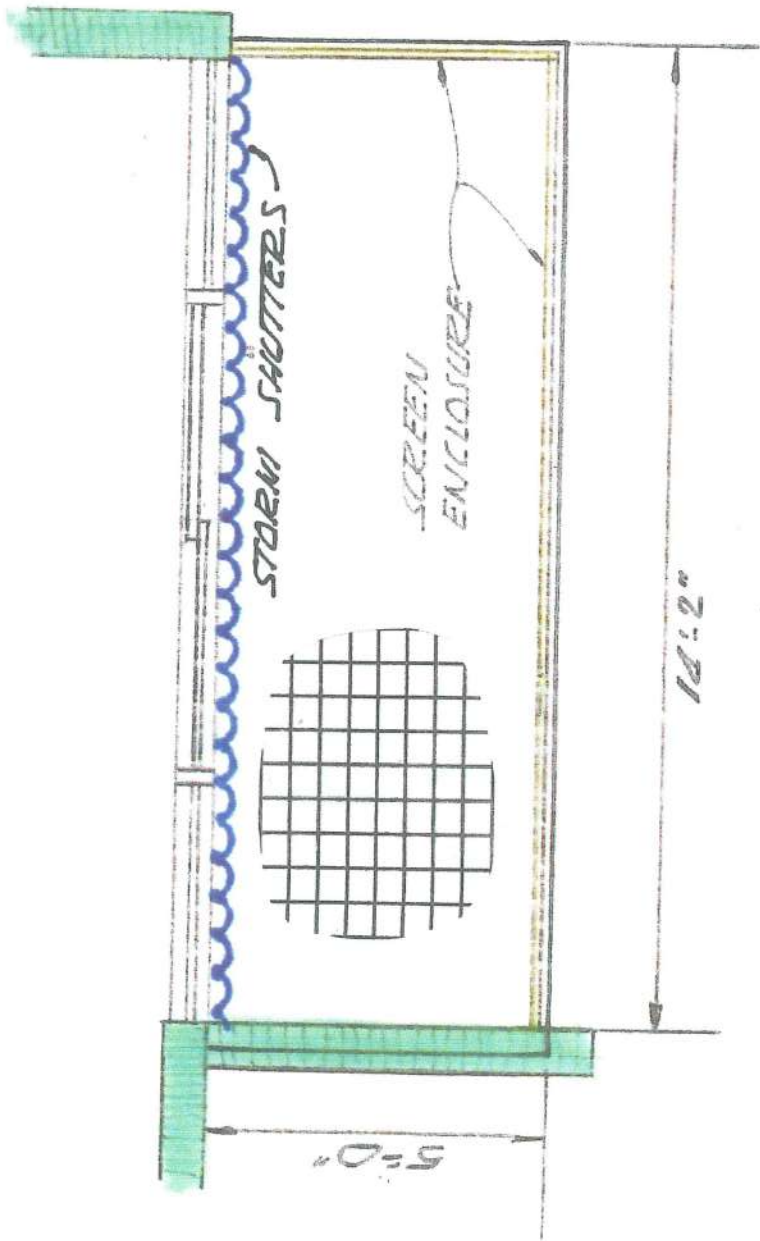
COVER: TILE SPRAY DECK OTHER:

UNIT No: 102 DATE: NOV. 18, 2023 DWG. NO.

LEGEND

- CRK - CRACK
- COL - COLUMN REPAIR
- E - EDGE REPAIR
- FD - FULL DEPTH REPAIR
- PD - PARTIAL DEPTH REPAIR
- RL - RAILING REMOVAL
- ST - STUCCO DAMAGE
- SGD - SLIDING GLASS DOOR
- SM - SHUTTER REMOVAL
- OH - OVERHEAD REPAIR
- OS - OVERHEAD SPALLS
- OE - OVERHEAD EDGE REPAIR
- DT - DELAMINATED TILE
- PI - POSSIBLE INTRUSION





**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

PROJECT: **THE SENATE CONDOMINIUMS**  
 TITLE: **DAMAGE SURVEY**

COVER: **TILE** SPRAY DECK OTHER:

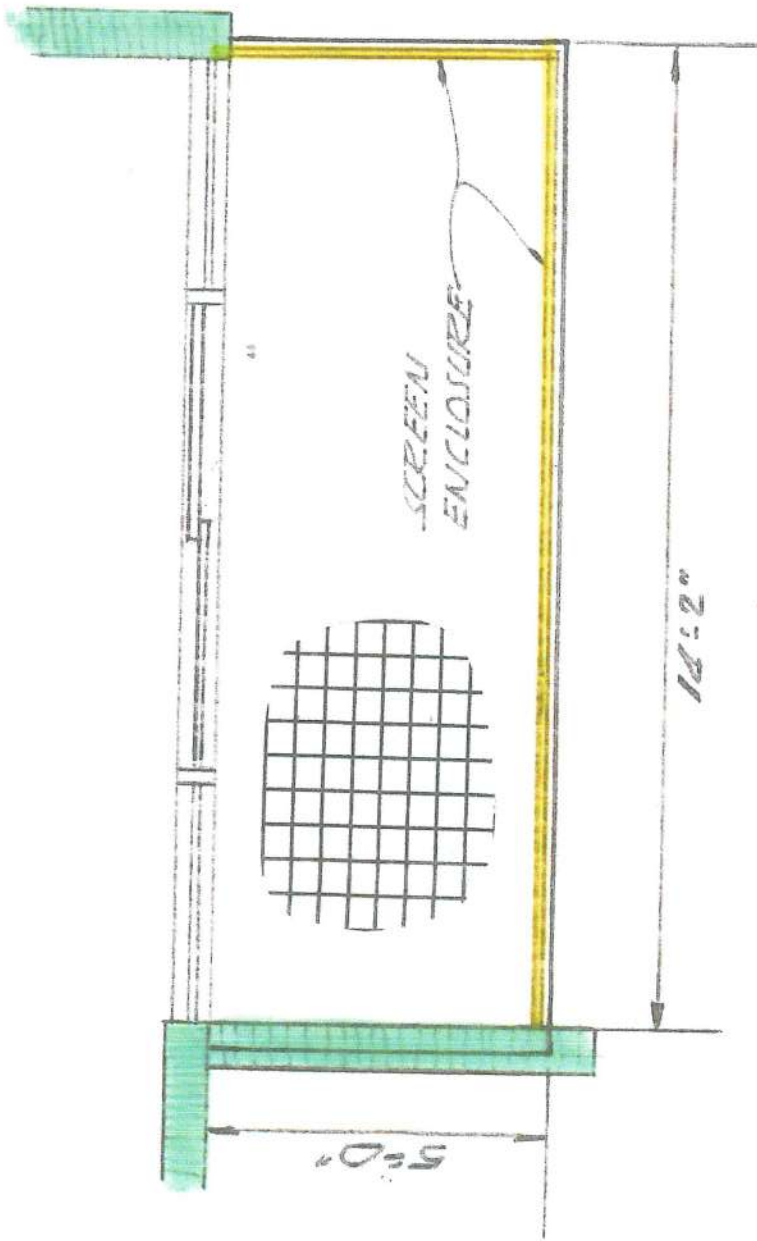
UNIT No: **103** DWG. NO

DATE: **Nov. 18, 2013**

**LEGEND**

- |                            |                            |
|----------------------------|----------------------------|
| CRK -- CRACK               | SGD -- SLIDING GLASS DOOR  |
| COL -- COLUMN REPAIR       | SH -- SHUTTER REMOVAL      |
| E -- EDGE REPAIR           | OH -- OVERHEAD REPAIR      |
| FD -- FULL DEPTH REPAIR    | OS -- OVERHEAD SPALLS      |
| PD -- PARTIAL DEPTH REPAIR | OE -- OVERHEAD EDGE REPAIR |
| RL -- RAILING REMOVAL      | DT -- DELAMINATED TILE     |
| ST -- STUCCO DAMAGE        | PI -- POSSIBLE INTRUSION   |





**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

**PROJECT: THE SENATE CONDOMINIUMS**  
**TITLE: DAMAGE SURVEY**

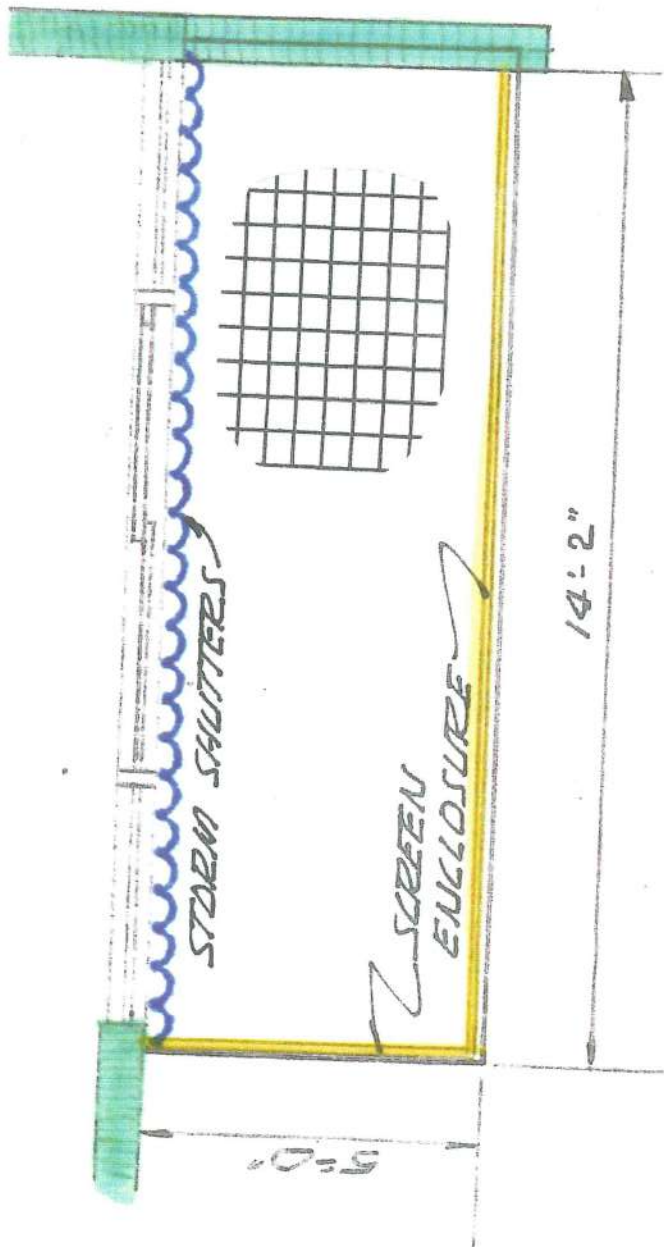
**COVER: TILE**      **SPRAY DECK**      **OTHER:**

**UNIT No: 104**      **DWG. NO. 104**

**DATE: 10/18/2023**

**LEGEND**

- |                            |                            |
|----------------------------|----------------------------|
| CRK -- CRACK               | SGD -- SLIDING GLASS DOOR  |
| COL -- COLUMN REPAIR       | SM -- SHUTTER REMOVAL      |
| E -- EDGE REPAIR           | CH -- OVERHEAD REPAIR      |
| FD -- FULL DEPTH REPAIR    | OS -- OVERHEAD SPALLS      |
| PD -- PARTIAL DEPTH REPAIR | OE -- OVERHEAD EDGE REPAIR |
| RL -- RAILING REMOVAL      | DT -- DELAMINATED TILE     |
| ST -- STUCCO DAMAGE        | PI -- POSSIBLE INTRUSION   |



**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

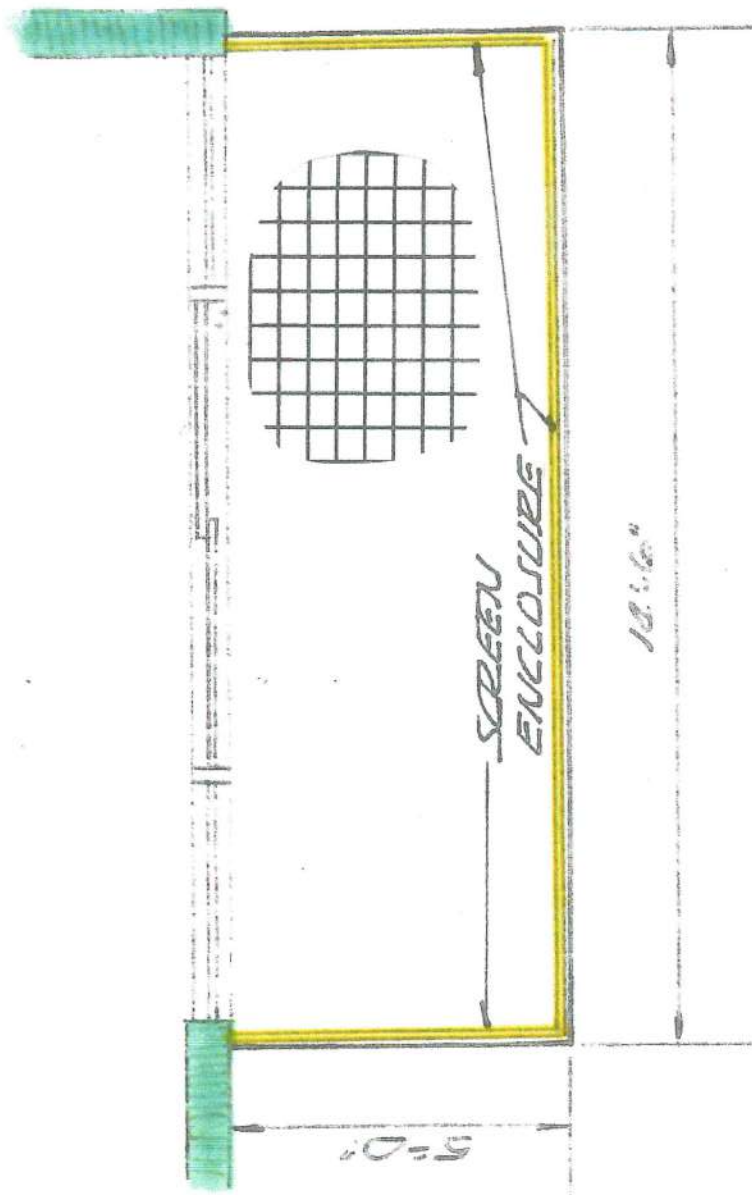
PROJECT: **THE SENATE CONDOMINIUMS**  
 TITLE: **DAMAGE SURVEY**

COVER: **TILE** SPRAY DECK OTHER:

UNIT No: **105** DATE: **APR 18, 2002** DWG. NO.

**LEGEND**

- CRK - CRACK
- COL - COLUMN REPAIR
- E - EDGE REPAIR
- FD - FULL DEPTH REPAIR
- PD - PARTIAL DEPTH REPAIR
- RL - RAILING REMOVAL
- ST - STUCCO DAMAGE
- SGD - SLIDING GLASS DOOR
- SH - SHUTTER REMOVAL
- OH - OVERHEAD REPAIR
- OS - OVERHEAD SPALLS
- OE - OVERHEAD EDGE REPAIR
- DT - DELAMINATED TILE
- PI - POSSIBLE INTRUSION



**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

**PROJECT: THE SENATE CONDOMINIUMS**  
**TITLE: DAMAGE SURVEY**

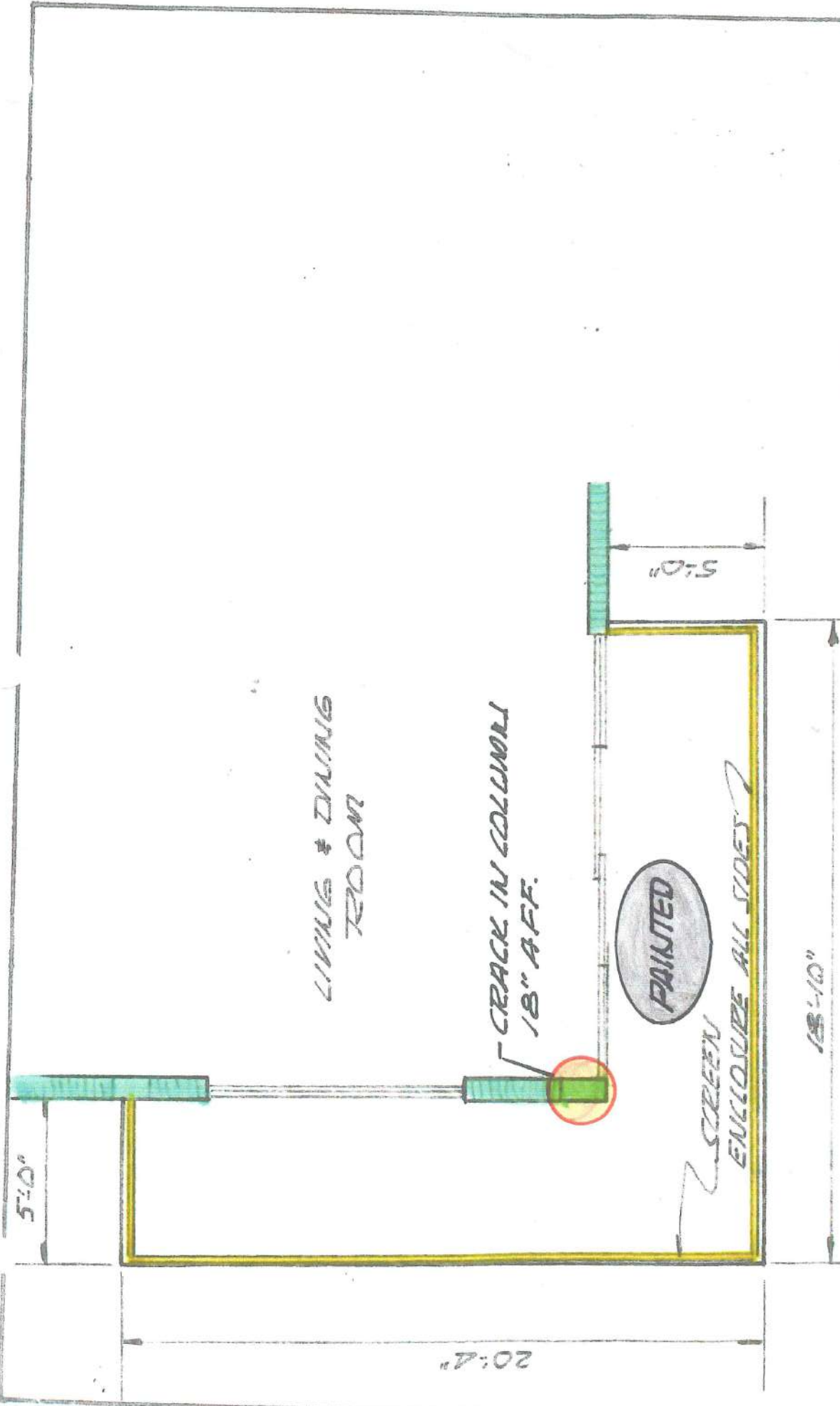
COVER: **TILE** SPRAY DECK OTHER:

UMT No: **106** DATE: **NOV. 18. 2023** DWG. NO.

**LEGEND**

- |                           |                           |
|---------------------------|---------------------------|
| CRK - CRACK               | SGD - SLIDING GLASS DOOR  |
| COL - COLUMN REPAIR       | SH - SHUTTER REMOVAL      |
| E - EDGE REPAIR           | OH - OVERHEAD REPAIR      |
| FD - FULL DEPTH REPAIR    | OS - OVERHEAD SPALLS      |
| PD - PARTIAL DEPTH REPAIR | OE - OVERHEAD EDGE REPAIR |
| RL - RAILING REMOVAL      | DT - DELAMINATED TILE     |
| ST - STUCCO DAMAGE        | PI - POSSIBLE INTRUSION   |





BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.

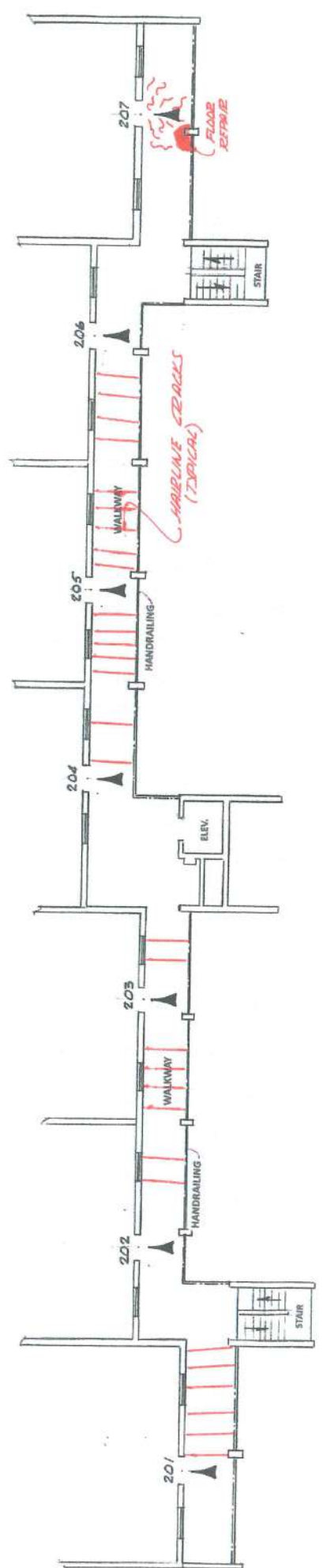
PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY

COVER: TILE SPRAY DECK OTHER: **PAINTED**

UNIT No: 107 DATE: DWG. NO.

LEGEND

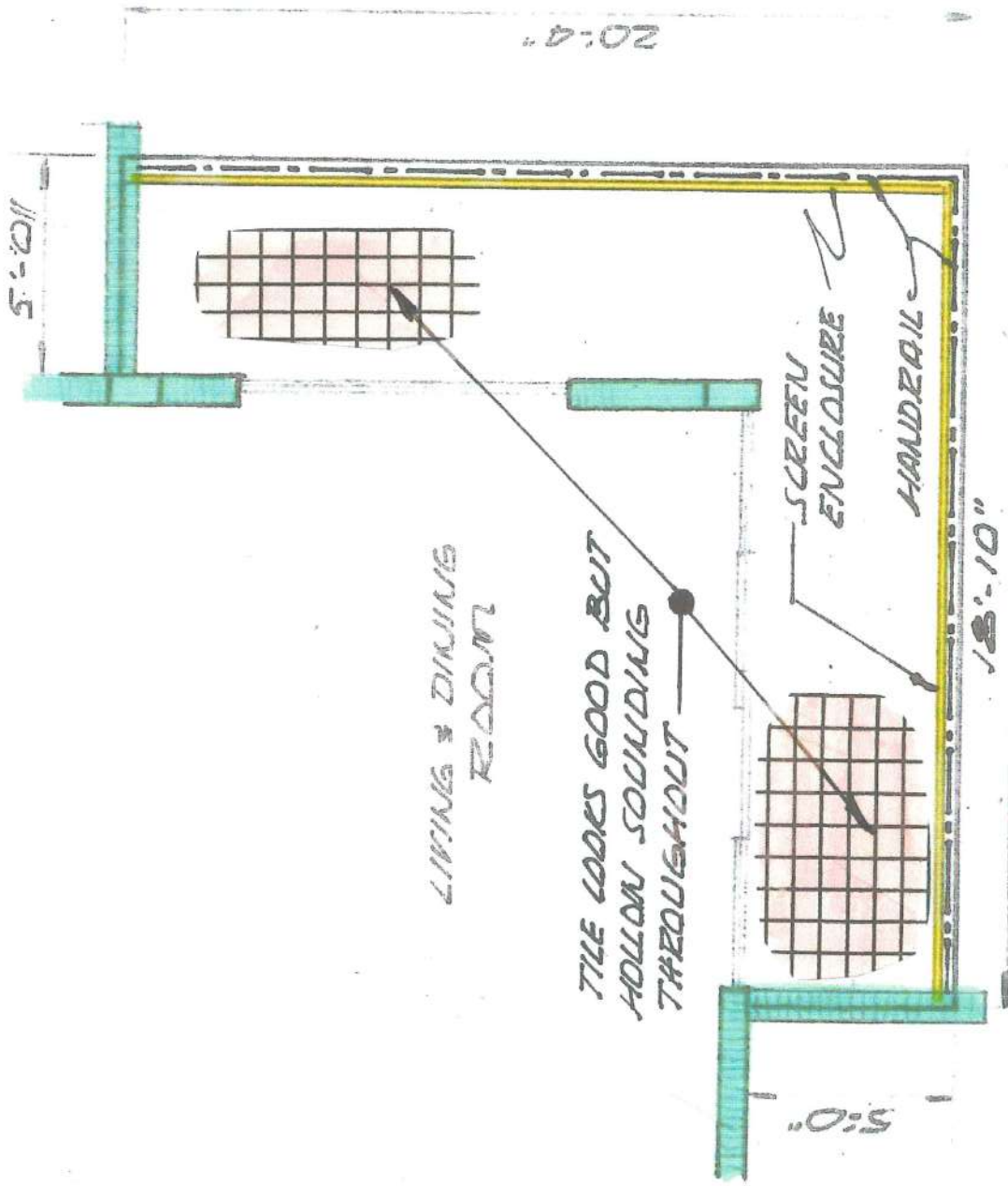
- CRK - CRACK
- COL - COLUMN REPAIR
- E - EDGE REPAIR
- FD - FULL DEPTH REPAIR
- PD - PARTIAL DEPTH REPAIR
- RL - RAILING REMOVAL
- ST - STUCCO DAMAGE
- SGD - SLIDING GLASS DOOR
- SH - SHUTTER REMOVAL
- OH - OVERHEAD REPAIR
- OS - OVERHEAD SPALLS
- OE - OVERHEAD EDGE REPAIR
- DT - DELAMINATED TILE
- PI - POSSIBLE INTRUSION



*HAIRLINE CRACKS  
OVER ENTIRE WALKWAY*

**BUILDING 2500: 2<sup>ND</sup> FLOOR WALKWAY**

Structural Engineering Professionals, Inc.	
PROJECT:	<b>THE SENATE CONDOMINIUMS</b>
TITLE:	<b>DAMAGE SURVEY</b>
COVER:	TILE
	SPRAY DECK
	OTHER:
	DATE: 12-20-23
	DWG. NO.



BUILDING NUMBER 2500

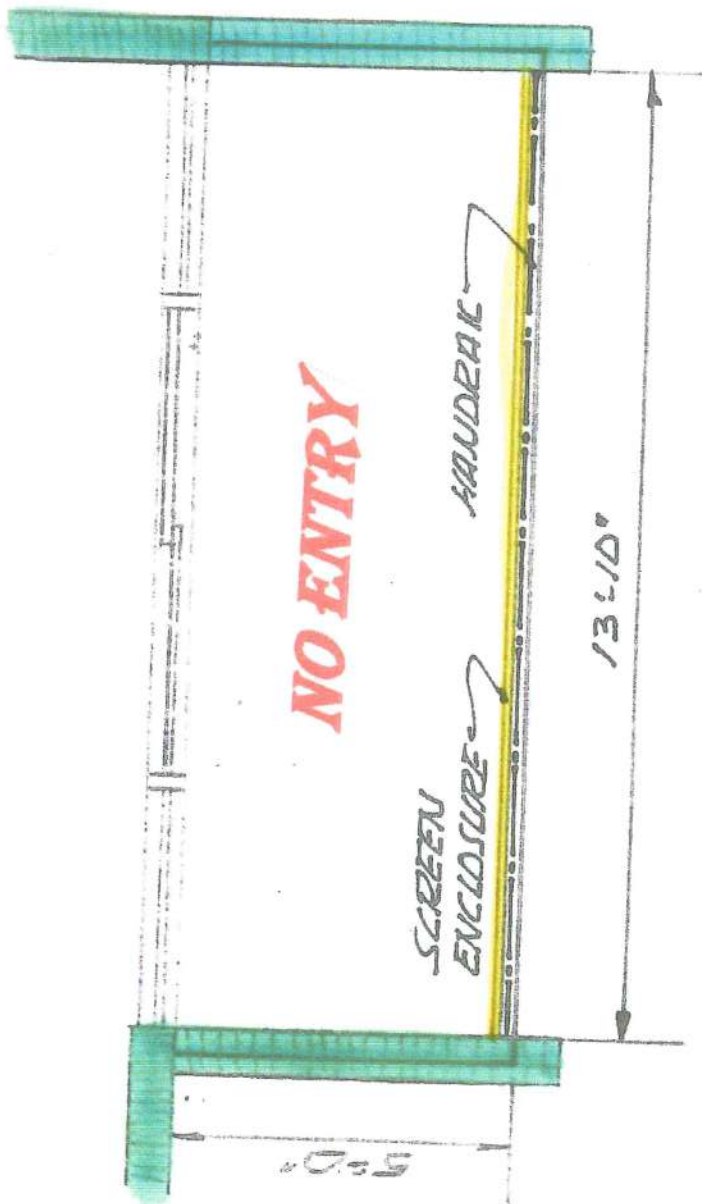
Structural Engineering Professionals, Inc.

PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY  
 COVER: TILE SPRAY DECK OTHER:  
 UNIT No: 201 DATE: Nov. 18, 2023 DWG. NO.

LEGEND

CRK	CRACK	SGD	SLIDING GLASS DOOR
COL	COLUMN REPAIR	SH	SHUTTER REMOVAL
E	EDGE REPAIR	OH	OVERHEAD REPAIR
FD	FULL DEPTH REPAIR	OS	OVERHEAD SPALLS
PD	PARTIAL DEPTH REPAIR	OE	OVERHEAD EDGE REPAIR
RL	RAILING REMOVAL	DT	DELAMINATED TILE
ST	STUCCO DAMAGE	PI	POSSIBLE INTRUSION





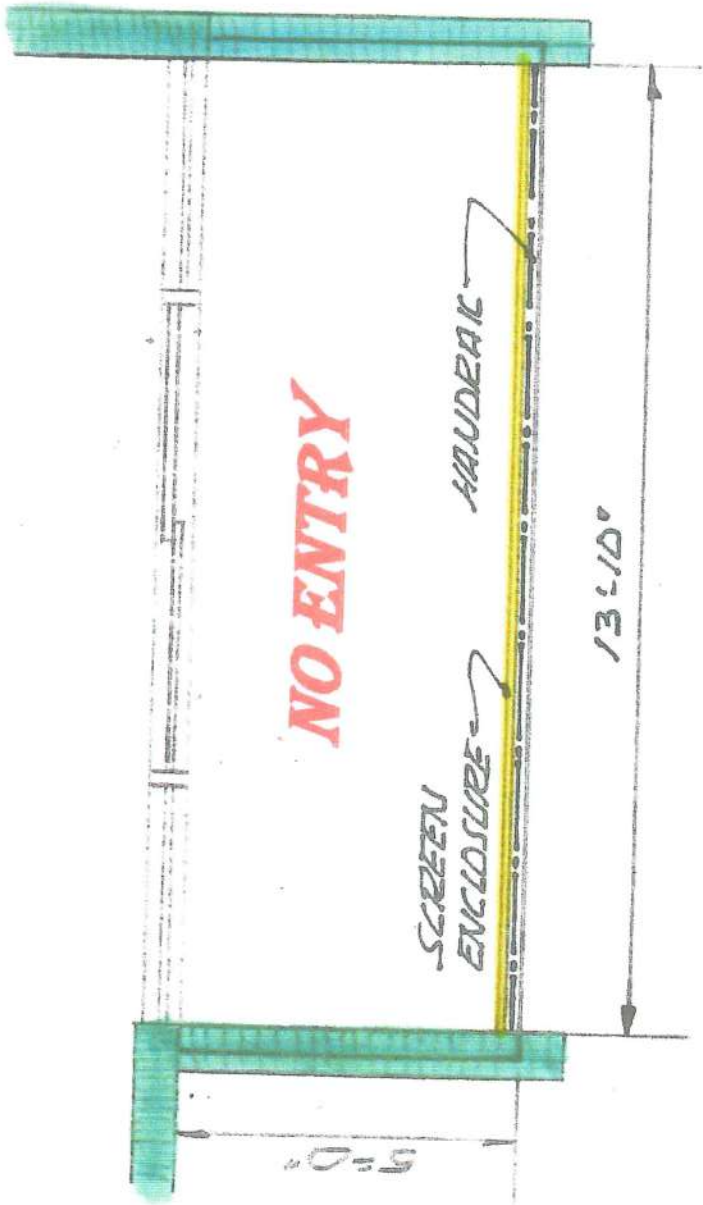
**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.	
PROJECT:	<b>THE SENATE CONDOMINIUMS</b>
TITLE:	DAMAGE SURVEY
COVER:	TILE      SPRAY DECK      OTHER:
UNIT No:	<b>202</b> DATE: <b>Nov. 18, 2023</b> DWG. NO.

**LEGEND**

CRK - CRACK	SGD - SLIDING GLASS DOOR
COL - COLUMN REPAIR	SH - SHUTTER REMOVAL
E - EDGE REPAIR	OH - OVERHEAD REPAIR
FD - FULL DEPTH REPAIR	OS - OVERHEAD SPALLS
PD - PARTIAL DEPTH REPAIR	OE - OVERHEAD EDGE REPAIR
RL - RAILING REMOVAL	DT - DELAMINATED TILE
ST - STUCCO DAMAGE	PI - POSSIBLE INTRUSION





**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

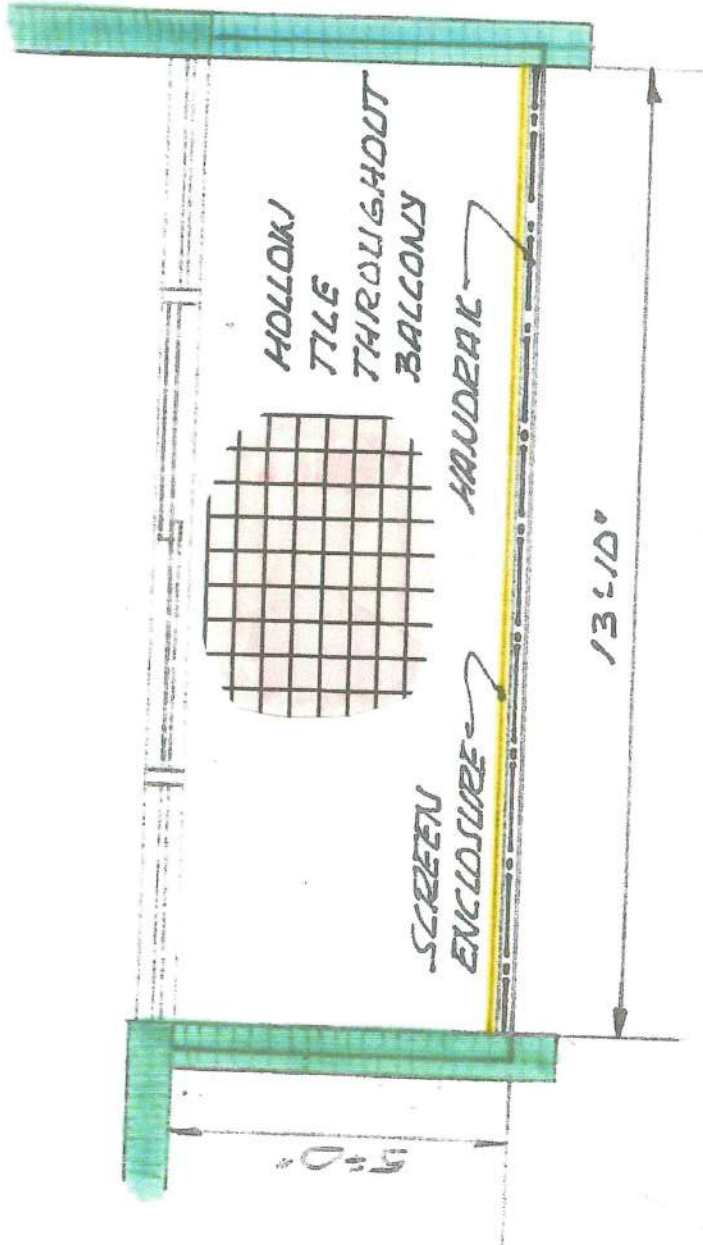
PROJECT: **THE SENATE CONDOMINIUMS**

TITLE: **DAMAGE SURVEY**

COVER: **TILE 203** SPRAY DECK OTHER:

**LEGEND**

- CRK -- CRACK
- COL -- COLUMN REPAIR
- E -- EDGE REPAIR
- FD -- FULL DEPTH REPAIR
- PD -- PARTIAL DEPTH REPAIR
- RL -- RAILING REMOVAL
- ST -- STUCCO DAMAGE
- SGD -- SLIDING GLASS DOOR
- SH -- SHUTTER REMOVAL
- OH -- OVERHEAD REPAIR
- OS -- OVERHEAD SPALLS
- OE -- OVERHEAD EDGE REPAIR
- DT -- DELAMINATED TILE



**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

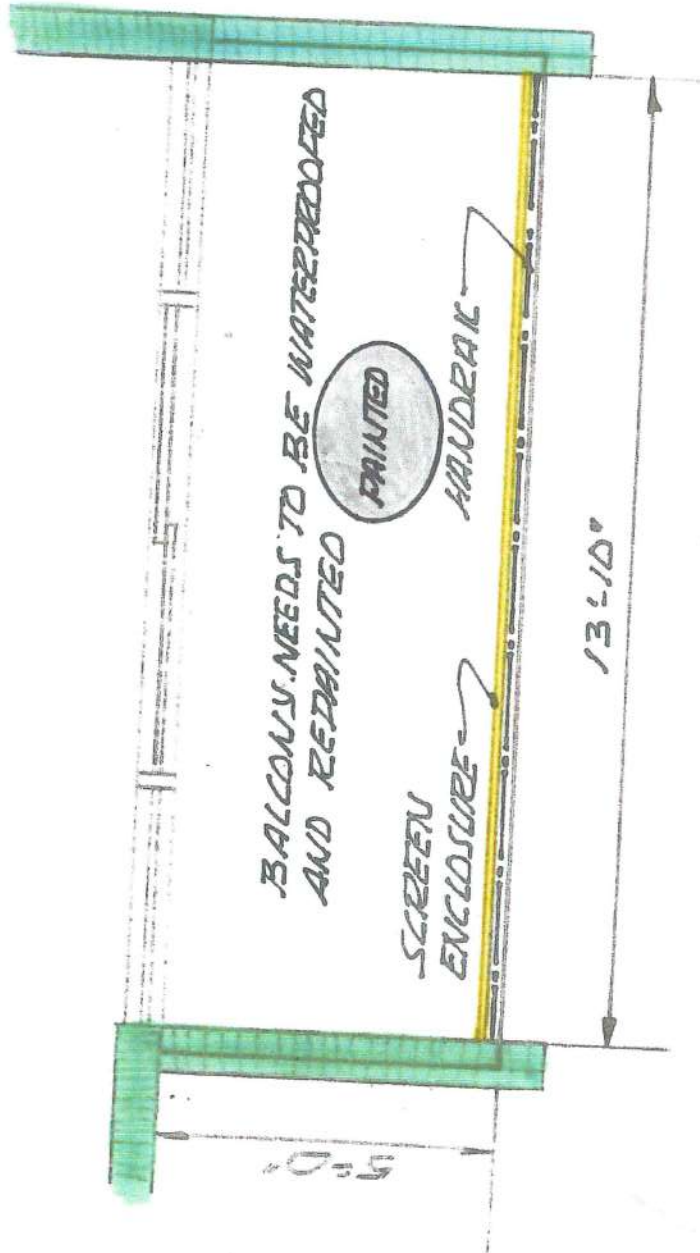
PROJECT: **THE SENATE CONDOMINIUMS**  
 TITLE: **DAMAGE SURVEY**

COVER: **TILE** SPRAY DECK OTHER:

UNIT No: **204** DWG. NO. **NOV. 18. 2023**

**LEGEND**

- CRK -- CRACK
- COL -- COLUMN REPAIR
- E -- EDGE REPAIR
- FD -- FULL DEPTH REPAIR
- PD -- PARTIAL DEPTH REPAIR
- RL -- RAILING REMOVAL
- ST -- STUCCO DAMAGE
- SGD -- SLIDING GLASS DOOR
- SH -- SHUTTER REMOVAL
- OH -- OVERHEAD REPAIR
- OS -- OVERHEAD SPALLS
- OE -- OVERHEAD EDGE REPAIR
- DT -- DELAMINATED TILE
- PI -- POSSIBLE INTRUSION



BALCONY NEEDS TO BE WATERPROOFED AND REDRAINED

PAINTED

SCREEN ENCLOSURE

13'-10"

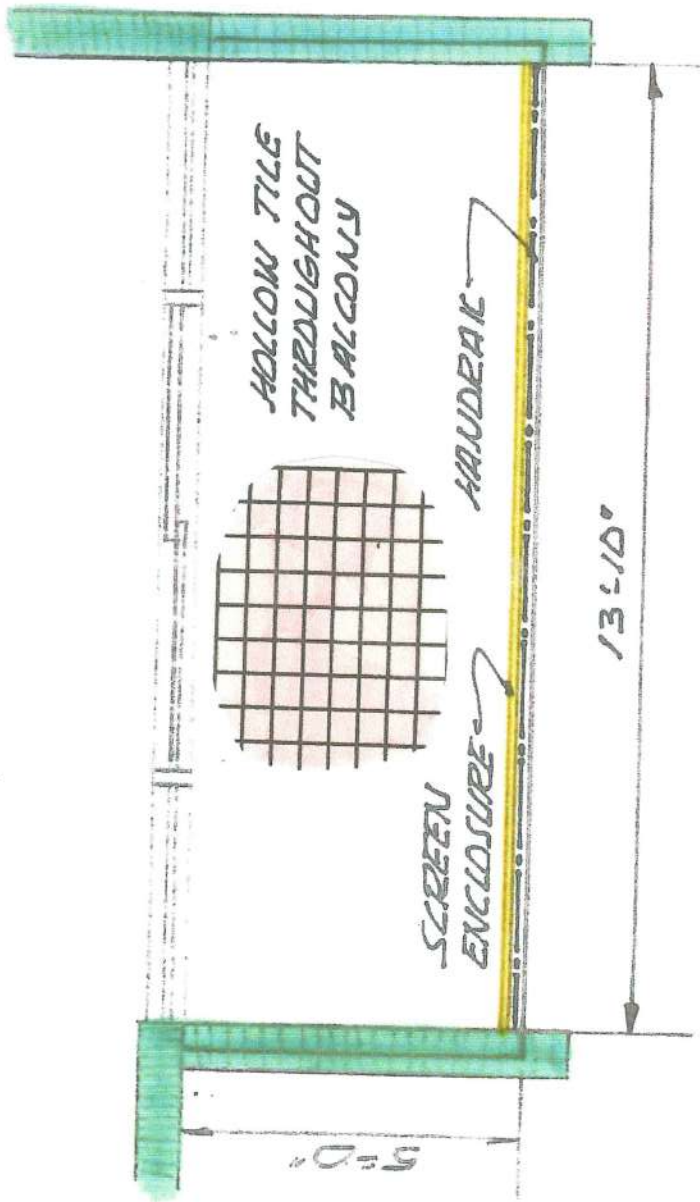
5'-0"

BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.	
PROJECT:	THE SENATE CONDOMINIUMS
TITLE:	DAMAGE SURVEY
COVER:	TILE SPRAY DECK OTHER: <b>PAINTED</b>
UNIT No.:	205
DATE:	NOV. 18, 2023
DWG. NO.:	

LEGEND	
CRK - CRACK	SGD - SLIDING GLASS DOOR
COL - COLUMN REPAIR	SH - SHUTTER REMOVAL
E - EDGE REPAIR	OH - OVERHEAD REPAIR
FD - FULL DEPTH REPAIR	OS - OVERHEAD SPALLS
PD - PARTIAL DEPTH REPAIR	OE - OVERHEAD EDGE REPAIR
RLL - RAILING REMOVAL	DT - DELAMINATED TILE
ST - STUCCO DAMAGE	PI - POSSIBLE INTRUSION





BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.

PROJECT: THE SENATE CONDOMINIUMS

TITLE: DAMAGE SURVEY

COVER: TILE SPRAY DECK OTHER:

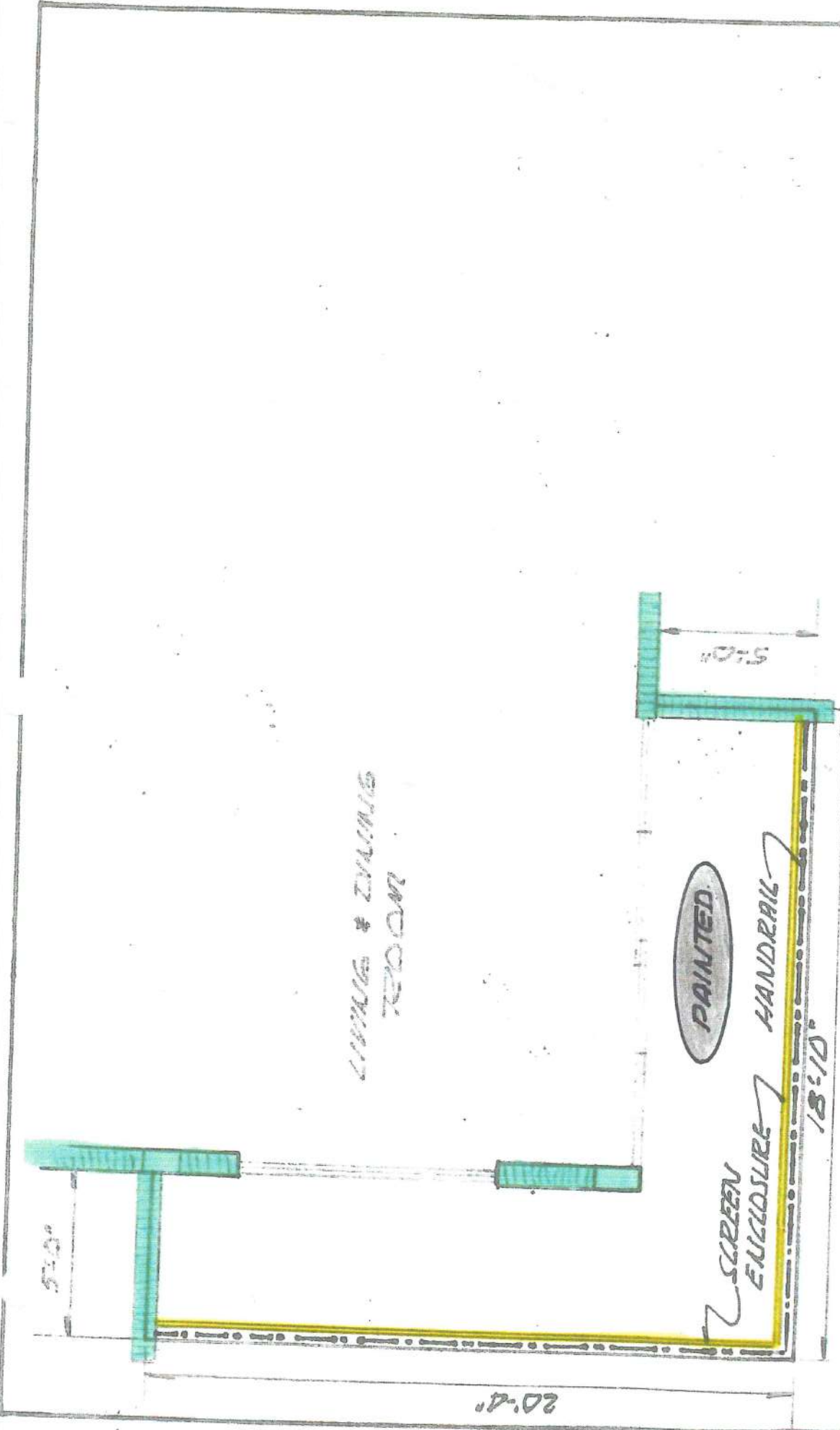
DWG. NO.

UNIT No: 206

DATE: Nov. 18, 2023

LEGEND

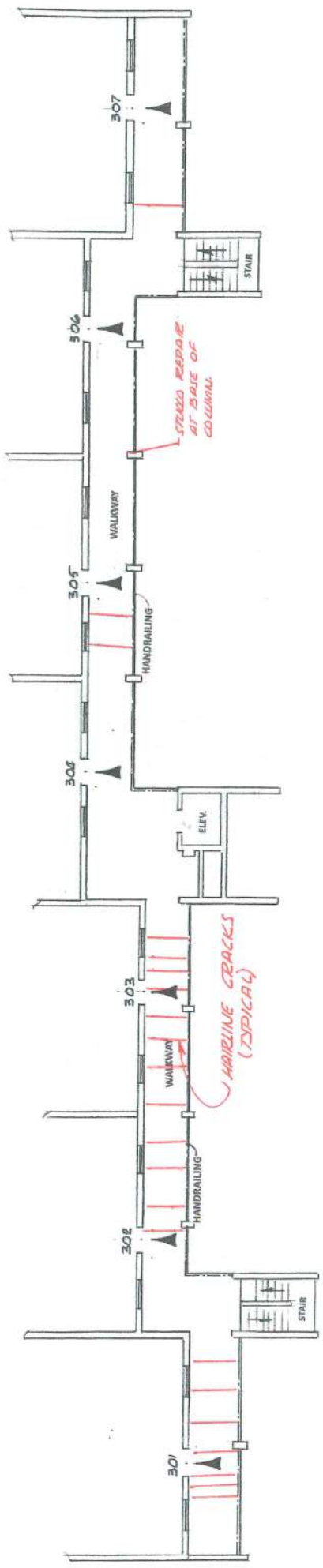
- CRK -- CRACK
- COL -- COLUMN REPAIR
- E -- EDGE REPAIR
- FD -- FULL DEPTH REPAIR
- PD -- PARTIAL DEPTH REPAIR
- RL -- RAILING REMOVAL
- ST -- STUCCO DAMAGE
- SGD -- SLIDING GLASS DOOR
- SH -- SHUTTER REMOVAL
- OH -- OVERHEAD REPAIR
- OS -- OVERHEAD SPALLS
- OE -- OVERHEAD EDGE REPAIR
- DT -- DELAMINATED TILE
- PI -- POSSIBLE INTRUSION



BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.	
PROJECT:	THE SENATE CONDOMINIUMS
TITLE:	DAMAGE SURVEY
COVER:	TILE SPRAY DECK OTHER: <b>PAINTED</b>
UNIT No. 207	DATE NOV. 18, 2023
	DWG. NO.

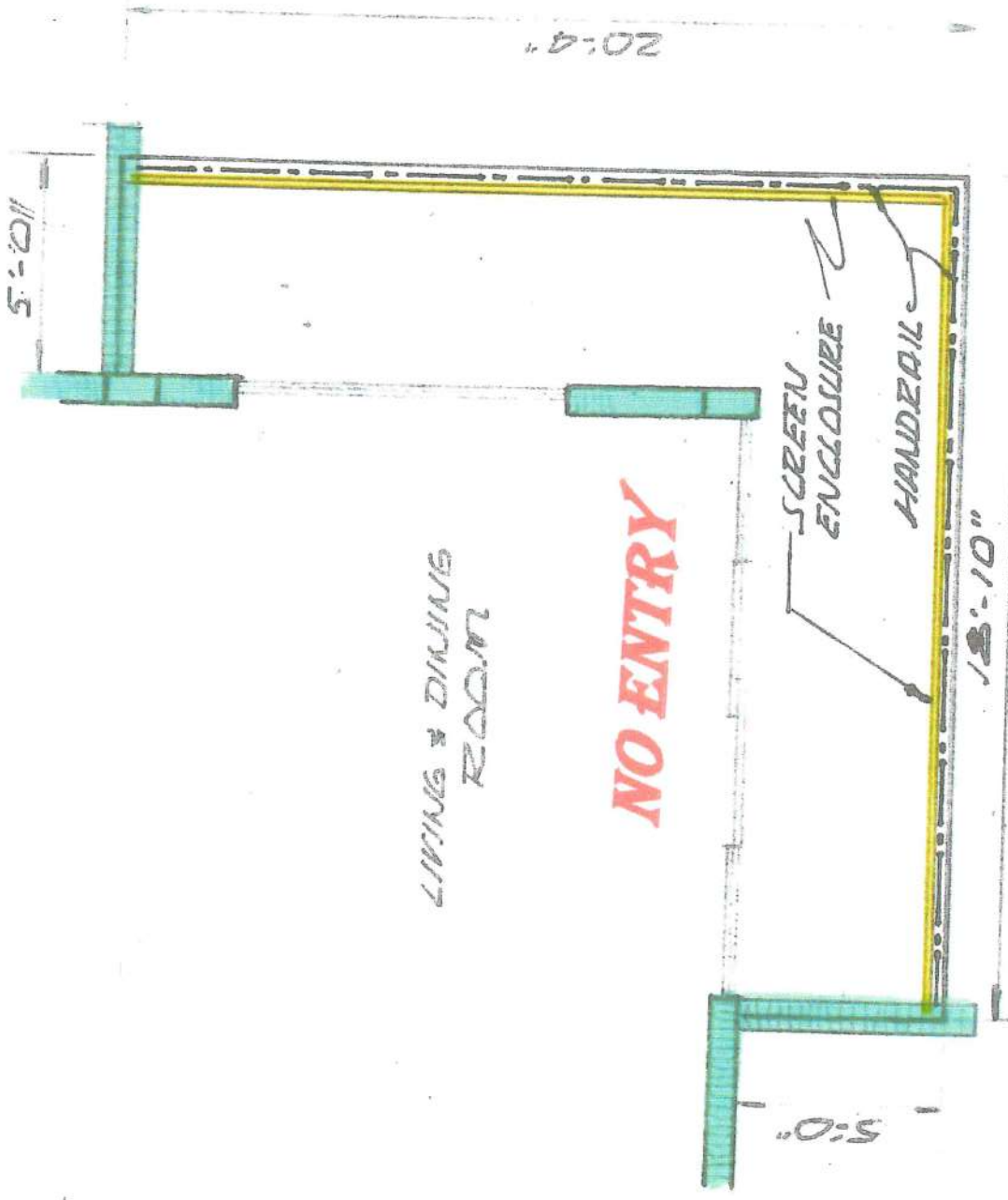
LEGEND	
CRK - CRACK	SGD - SLIDING GLASS DOOR
COL - COLUMN REPAIR	SH - SHUTTER REMOVAL
E - EDGE REPAIR	OH - OVERHEAD REPAIR
FD - FULL DEPTH REPAIR	OS - OVERHEAD SPALLS
PD - PARTIAL DEPTH REPAIR	OE - OVERHEAD EDGE REPAIR
RL - RAILING REMOVAL	DT - DELAMINATED TILE
ST - STUCCO DAMAGE	PI - POSSIBLE INTRUSION



**BUILDING 2500: 3<sup>RD</sup> FLOOR WALKWAY**

Structural Engineering Professionals, Inc.	
PROJECT:	<b>THE SENATE CONDOMINIUMS</b>
TITLE:	DAMAGE SURVEY
COVER:	TILE
OTHER:	SPRAY DECK
DWG. NO.	2021-15-2023



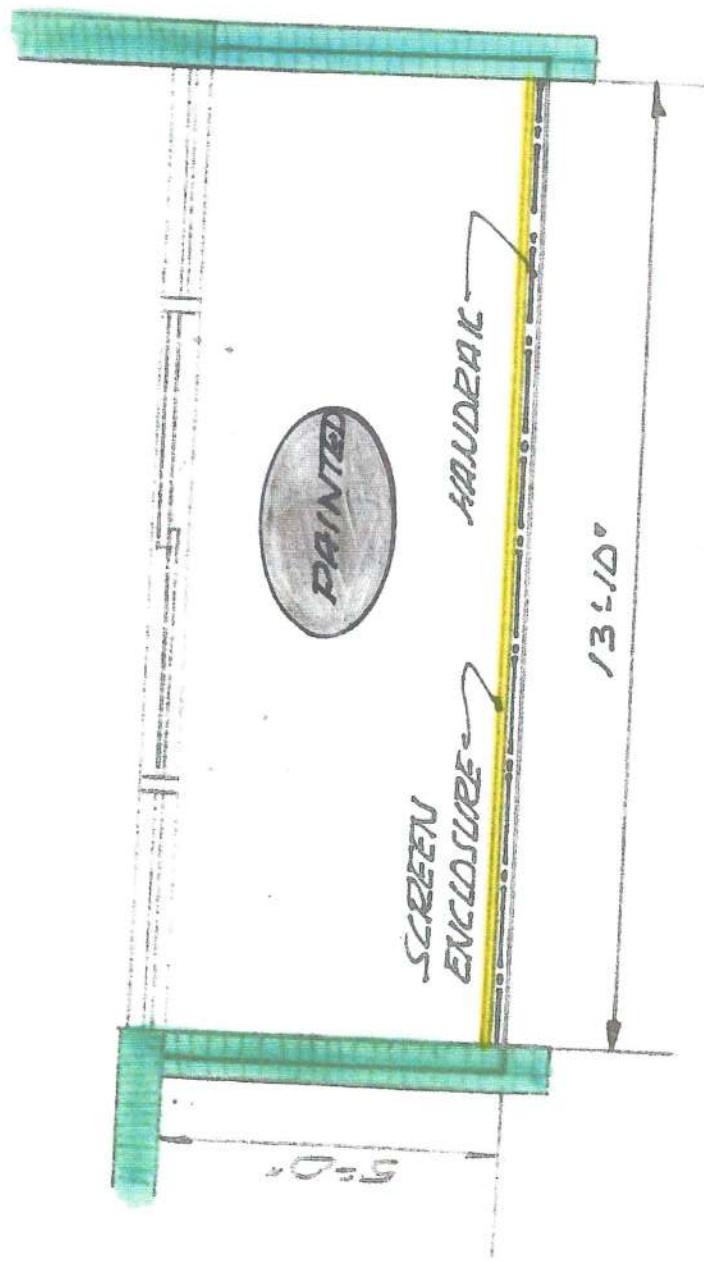


BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.	
PROJECT:	THE SENATE CONDOMINIUMS
TITLE:	DAMAGE SURVEY
COVER:	TILE      SPRAY DECK      OTHER:
UNIT No:	301
DWG. NO.	Nov. 18, 2023

LEGEND	
CRK -- CRACK	SGD -- SLIDING GLASS DOOR
COL -- COLUMN REPAIR	SH -- SHUTTER REMOVAL
E -- EDGE REPAIR	OH -- OVERHEAD REPAIR
FD -- FULL DEPTH REPAIR	OS -- OVERHEAD SPALLS
PD -- PARTIAL DEPTH REPAIR	OE -- OVERHEAD EDGE REPAIR
RL -- RAILING REMOVAL	DT -- DELAMINATED TILE
ST -- STUCCO DAMAGE	PI -- POSSIBLE INTRUSION





BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.

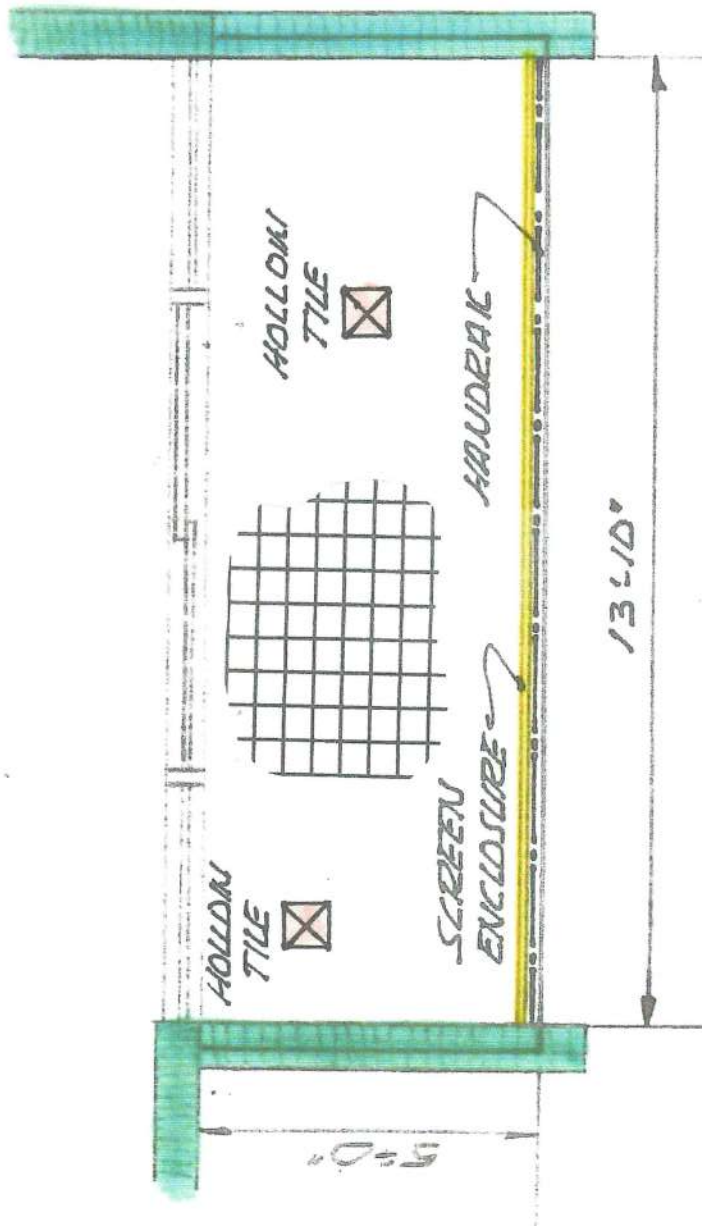
PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY

COVER: TILE      SPRAY DECK      OTHER: **PAINTED**

UNIT No: 302      DATE: Nov. 18, 2023      DWG. NO.

LEGEND

- CRK - CRACK
- COL - COLUMN REPAIR
- E - EDGE REPAIR
- FD - FULL DEPTH REPAIR
- PD - PARTIAL DEPTH REPAIR
- RL - RAILING REMOVAL
- ST - SPLICED DAMAGE
- SGD - SLIDING GLASS DOOR
- SH - SHUTTER REMOVAL
- OH - OVERHEAD REPAIR
- OS - OVERHEAD SPALLS
- OE - OVERHEAD EDGE REPAIR
- DT - DELAMINATED TILE
- PI - POSSIBLE INTRUSION

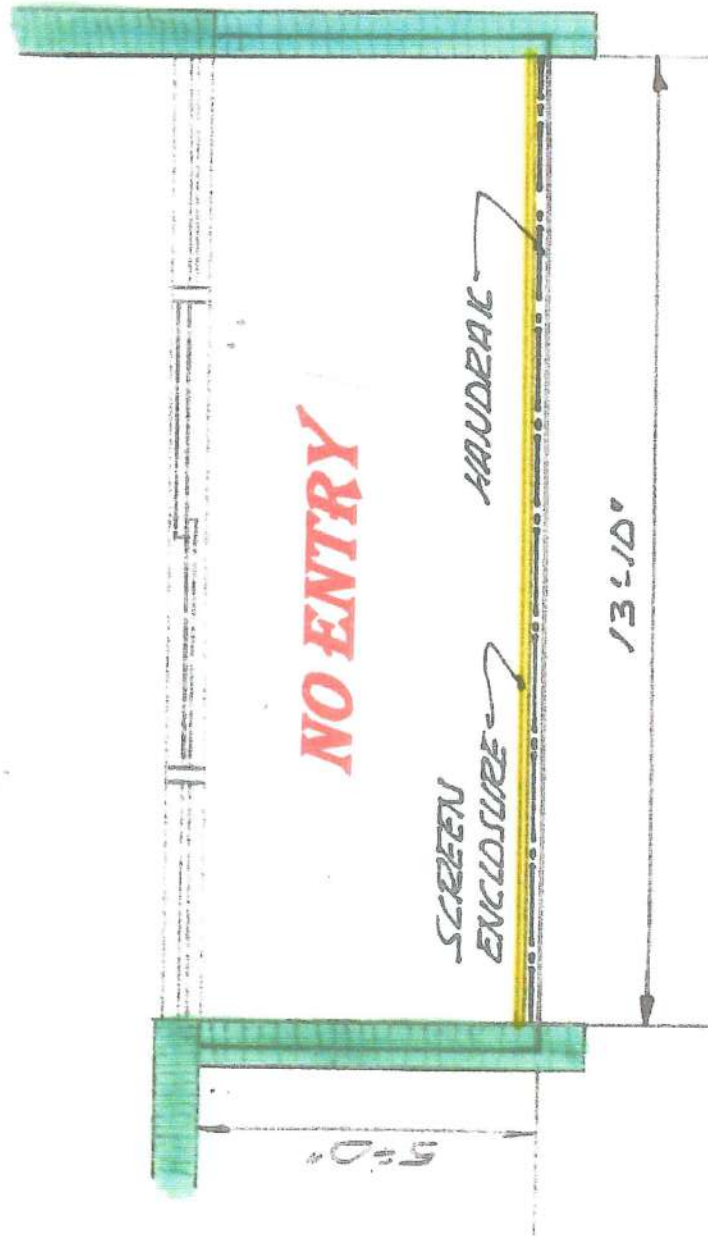


BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.	
PROJECT:	THE SENATE CONDOMINIUMS
TITLE:	DAMAGE SURVEY
COVER:	TILE SPRAY DECK OTHER:
UNIT No:	303
DATE:	NOV. 18, 2023
DWG. NO.	

LEGEND

CRK - CRACK	SGD - SLIDING GLASS DOOR
COL - COLUMN REPAIR	SH - SHUTTER REMOVAL
E - EDGE REPAIR	OH - OVERHEAD REPAIR
FD - FULL DEPTH REPAIR	OS - OVERHEAD SPALLS
PD - PARTIAL DEPTH REPAIR	OE - OVERHEAD EDGE REPAIR
RL - RAILING REMOVAL	DT - DELAMINATED TILE
ST - STUCCO DAMAGE	PI - POSSIBLE INTRUSION



**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

PROJECT: **THE SENATE CONDOMINIUMS**  
 TITLE: **DAMAGE SURVEY**

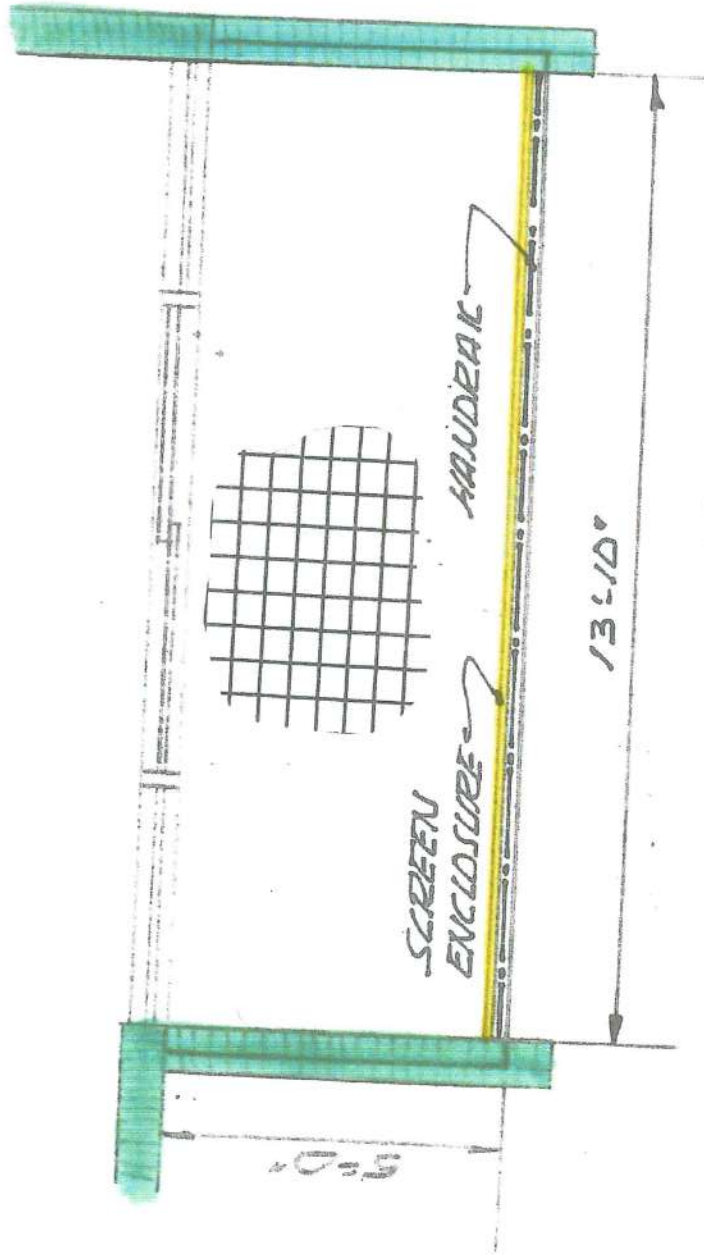
COVER: TILE      SPRAY DECK      OTHER:

UNIT No: **304**      DATE: **Nov. 18, 2023**      DWG. NO.

**LEGEND**

- CRK - CRACK
- COL - COLUMN REPAIR
- E - EDGE REPAIR
- FD - FULL DEPTH REPAIR
- PD - PARTIAL DEPTH REPAIR
- RL - RAILING REMOVAL
- ST - STUCCO DAMAGE
- SGD - SLIDING GLASS DOOR
- SH - SHUTTER REMOVAL
- OH - OVERHEAD REPAIR
- OS - OVERHEAD SPALLS
- OE - OVERHEAD EDGE REPAIR
- DT - DELAMINATED TILE
- PI - POSSIBLE INTRUSION





**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

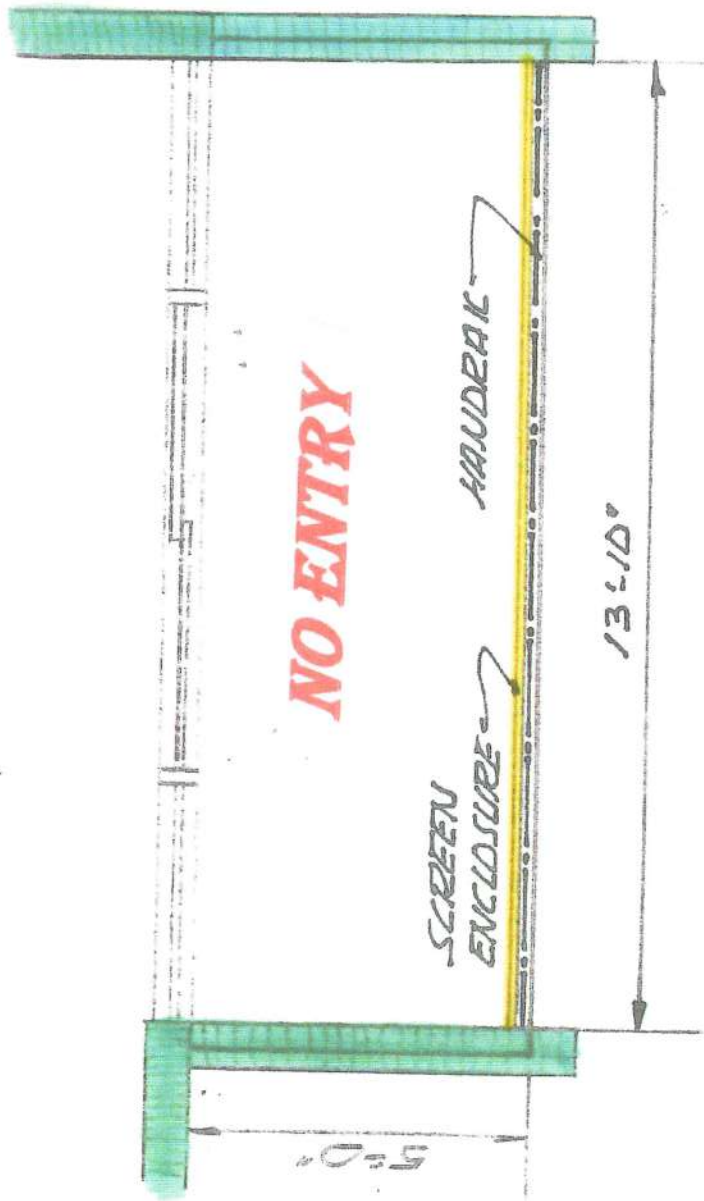
PROJECT: **THE SENATE CONDOMINIUMS**  
 TITLE: **DAMAGE SURVEY**

COVER: **TILE** SPRAY DECK OTHER:

UNIT No: **305** DATE: **1001.18.2023** DWG. NO.

**LEGEND**

- |                            |                            |
|----------------------------|----------------------------|
| CRK -- CRACK               | SGD -- SLIDING GLASS DOOR  |
| COL -- COLUMN REPAIR       | SH -- SHUTTER REMOVAL      |
| E -- EDGE REPAIR           | OH -- OVERHEAD REPAIR      |
| FD -- FULL DEPTH REPAIR    | OS -- OVERHEAD SPALLS      |
| PD -- PARTIAL DEPTH REPAIR | OE -- OVERHEAD EDGE REPAIR |
| RL -- RAILING REMOVAL      | DT -- DELAMINATED TILE     |
| ST -- STUCCO DAMAGE        | PI -- POSSIBLE INTRUSION   |



BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.

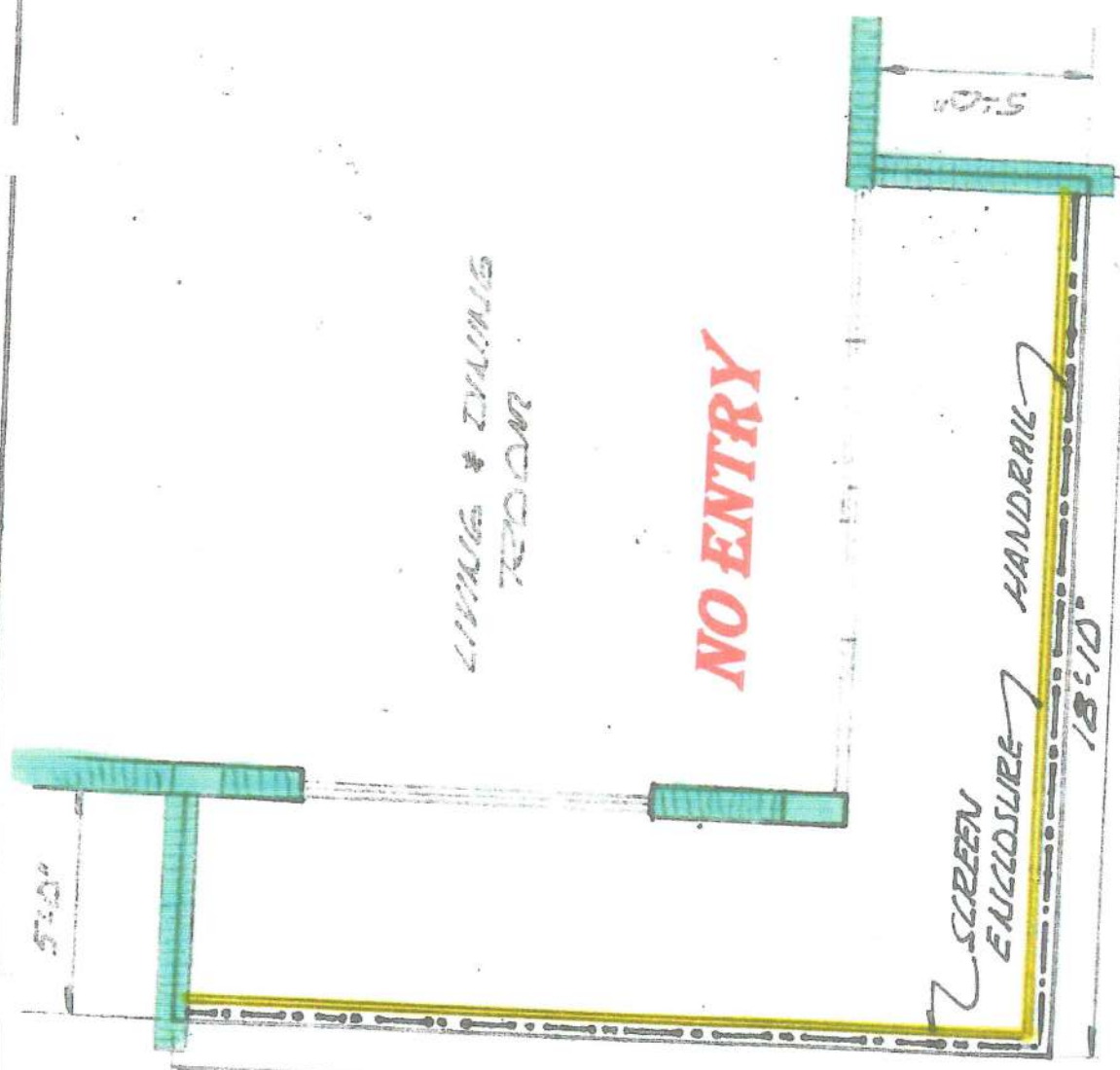
PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY

COVER: TILE SPRAY DECK OTHER:

UNIT No: 306 DATE: Nov. 18, 2023 DWG. NO.

LEGEND

- |                           |                           |
|---------------------------|---------------------------|
| CRK - CRACK               | SGD - SLIDING GLASS DOOR  |
| COL - COLUMN REPAIR       | SH - SHUTTER REMOVAL      |
| E - EDGE REPAIR           | OH - OVERHEAD REPAIR      |
| FD - FULL DEPTH REPAIR    | OS - OVERHEAD SPALLS      |
| PD - PARTIAL DEPTH REPAIR | OE - OVERHEAD EDGE REPAIR |
| RL - RAILING REMOVAL      | DT - DELAMINATED TILE     |
| ST - STUCCO DAMAGE        | PI - POSSIBLE INTRUSION   |



BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.

PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY

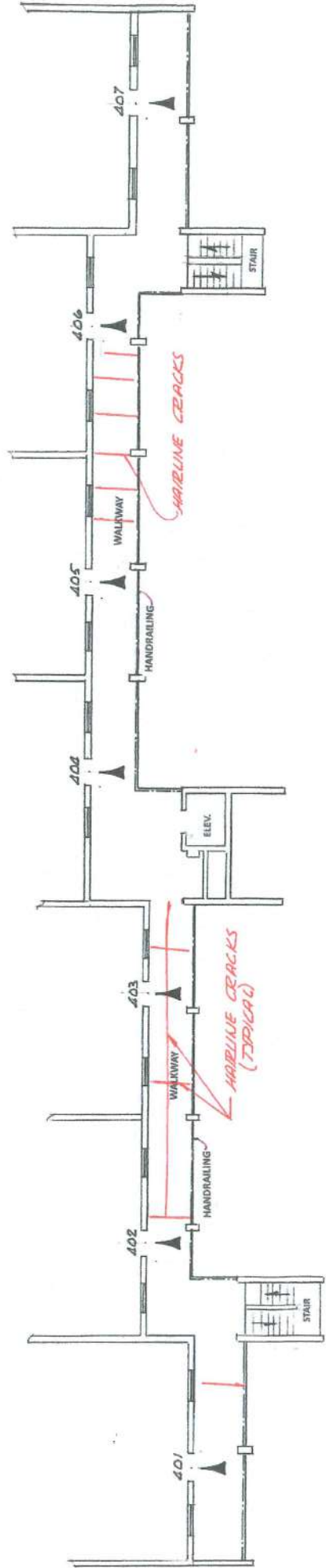
COVER: TILE      SPRAY DECK      OTHER:

UNIT No: 307      DATE: NOV. 18, 2023      DWG. NO.

LEGEND

CRK - CRACK	SGD - SLIDING GLASS DOOR
COL - COLUMN REPAIR	SM - SHUTTER REMOVAL
E - EDGE REPAIR	OH - OVERHEAD REPAIR
FD - FULL DEPTH REPAIR	OS - OVERHEAD SPALLS
PD - PARTIAL DEPTH REPAIR	OE - OVERHEAD EDGE REPAIR
RL - RAILING REMOVAL	DT - DELAMINATED TILE
ST - STUCCO DAMAGE	PI - POSSIBLE INTRUSION

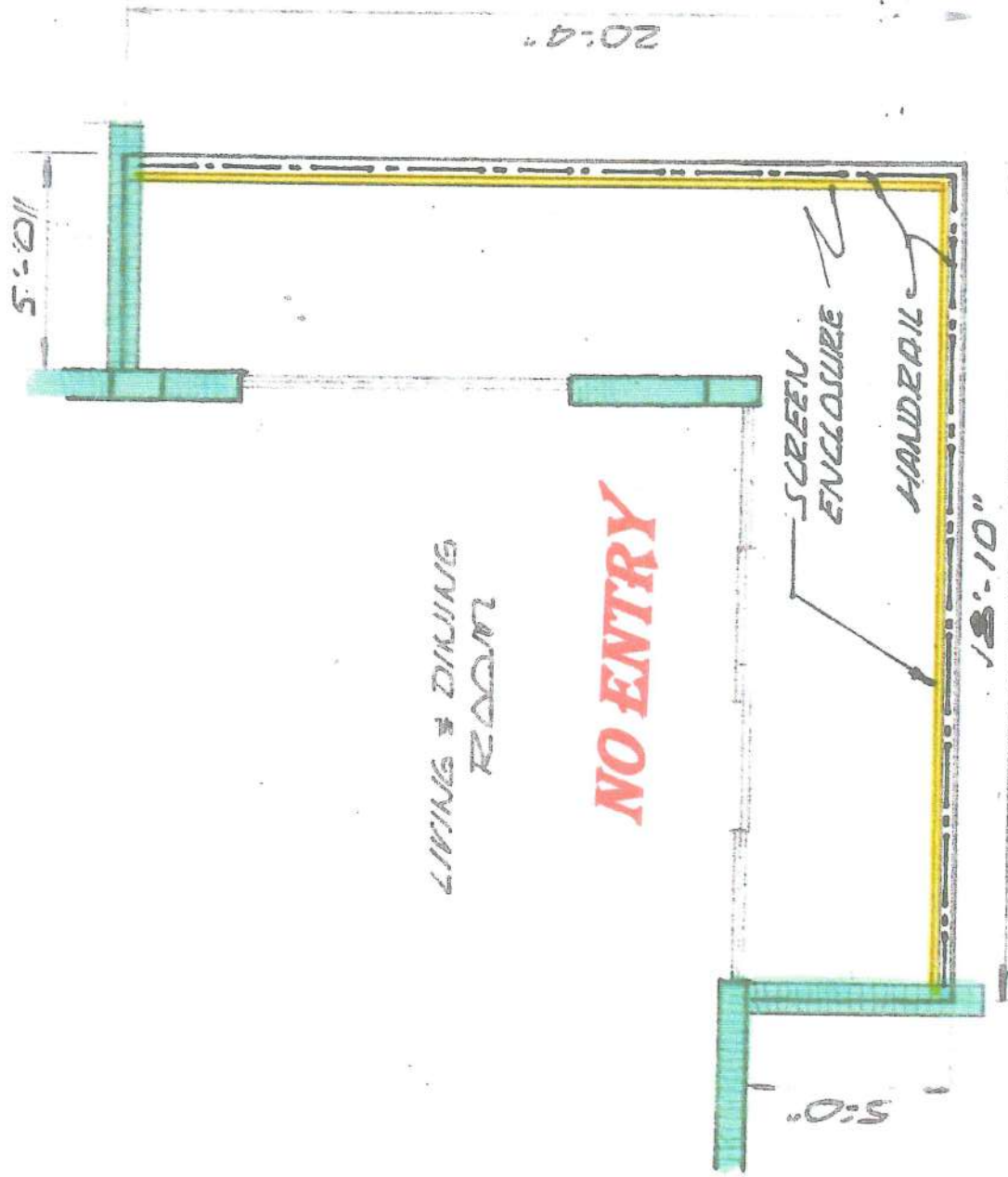




**BUILDING 2500: 4TH FLOOR WALKWAY**

Structural Engineering Professionals, Inc.	
PROJECT:	<b>THE SENATE CONDOMINIUMS</b>
TITLE:	DAMAGE SURVEY
COVER:	TILE
	SPRAY DECK
OTHER:	10/21/83
	10/21/83



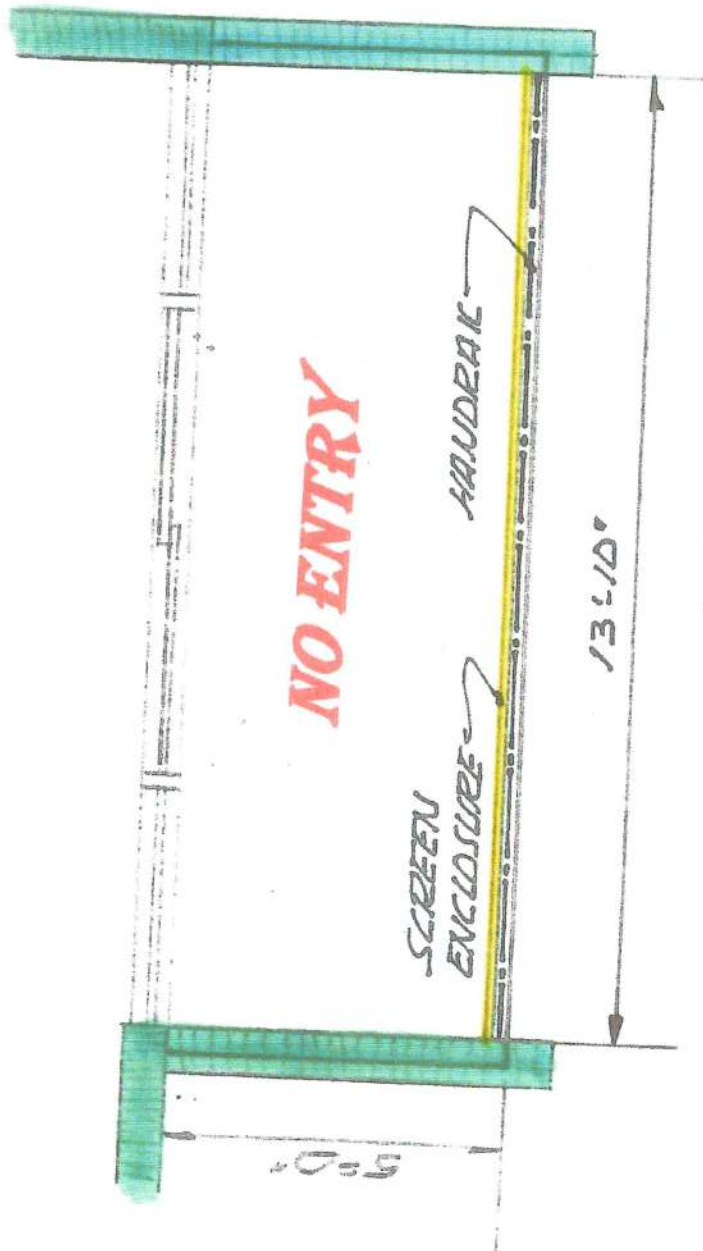


BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.			
PROJECT:	THE SENATE CONDOMINIUMS		
TITLE:	DAMAGE SURVEY		
COVER:	TILE	SPRAY DECK	OTHER:
UNIT No:	401	DATE	NOV. 18, 2023
			DWG. NO

LEGEND

CRK - CRACK	SGD - SLIDING GLASS DOOR
COL - COLUMN REPAIR	SH - SHUTTER REMOVAL
E - EDGE REPAIR	OH - OVERHEAD REPAIR
FD - FULL DEPTH REPAIR	OS - OVERHEAD SPALLS
PD - PARTIAL DEPTH REPAIR	OE - OVERHEAD EDGE REPAIR
RL - RAILING REMOVAL	DT - DELAMINATED TILE
ST - STUCCO DAMAGE	PI - POSSIBLE INTRUSION

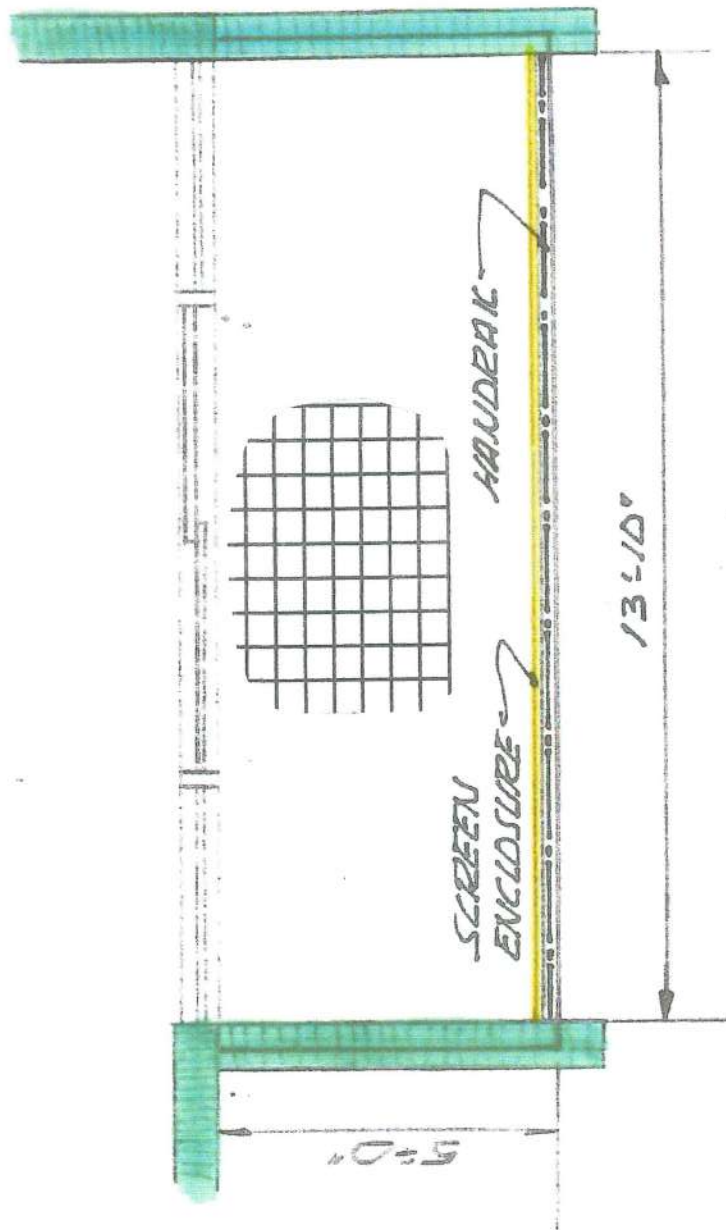


**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.			
PROJECT:	THE SENATE CONDOMINIUMS		
TITLE:	DAMAGE SURVEY		
COVER:	TILE	SPRAY DECK	OTHER:
UNIT No:	402	DATE	NOV. 12, 2023
			DWG. NO.

**LEGEND**

CRK - CRACK	SGD - SLIDING GLASS DOOR
COL - COLUMN REPAIR	SH - SHUTTER REMOVAL
E - EDGE REPAIR	OH - OVERHEAD REPAIR
FD - FULL DEPTH REPAIR	OS - OVERHEAD SPALLS
PD - PARTIAL DEPTH REPAIR	OE - OVERHEAD EDGE REPAIR
RL - RAILING REMOVAL	DT - DELAMINATED TILE
ST - STUCCO DAMAGE	PI - POSSIBLE INTRUSION



BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.

PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY

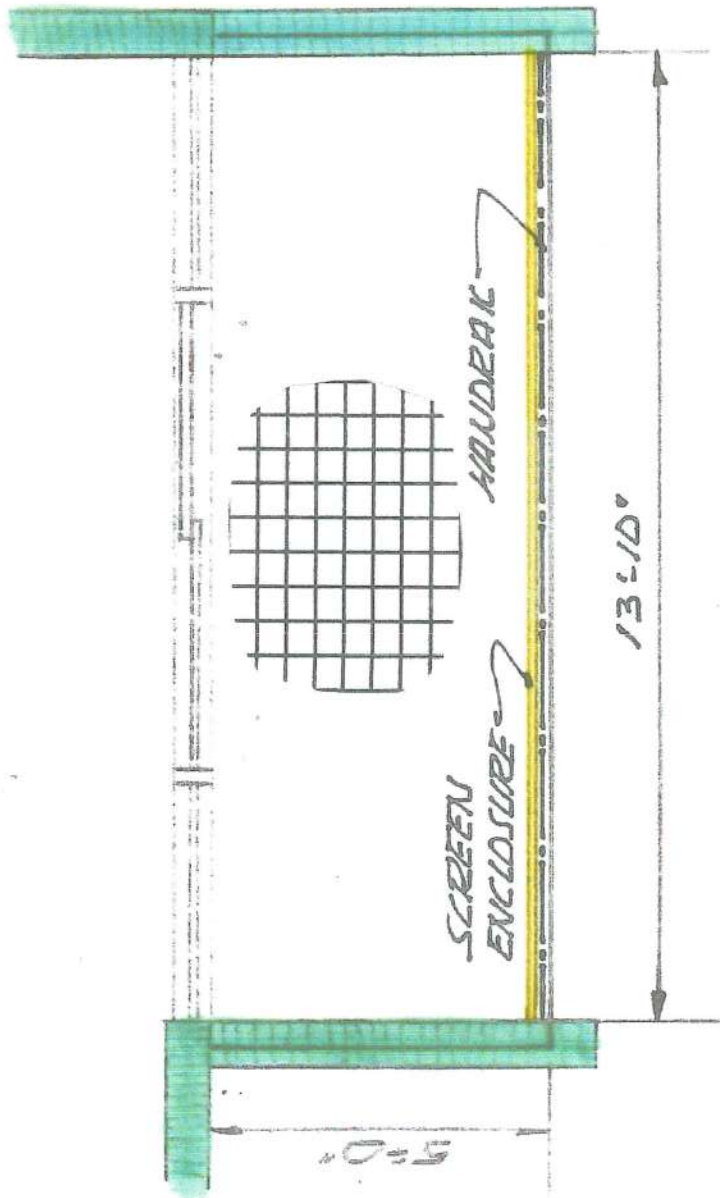
COVER: TILE SPRAY DECK OTHER:

UNIT No: 403 DATE: NOV. 18, 2023 DWG. NO.

LEGEND

- CRK -- CRACK
- COL -- COLUMN REPAIR
- E -- EDGE REPAIR
- FD -- FULL DEPTH REPAIR
- PD -- PARTIAL DEPTH REPAIR
- RL -- RAILING REMOVAL
- ST -- STUCCO DAMAGE
- SGD -- SLIDING GLASS DOOR
- SH -- SHUTTER REMOVAL
- OH -- OVERHEAD REPAIR
- OS -- OVERHEAD SPALLS
- OE -- OVERHEAD EDGE REPAIR
- DT -- DELAMINATED TILE
- PI -- POSSIBLE INTRUSION





**BUILDING NUMBER 2500**

Structural Engineering Professionals, Inc.

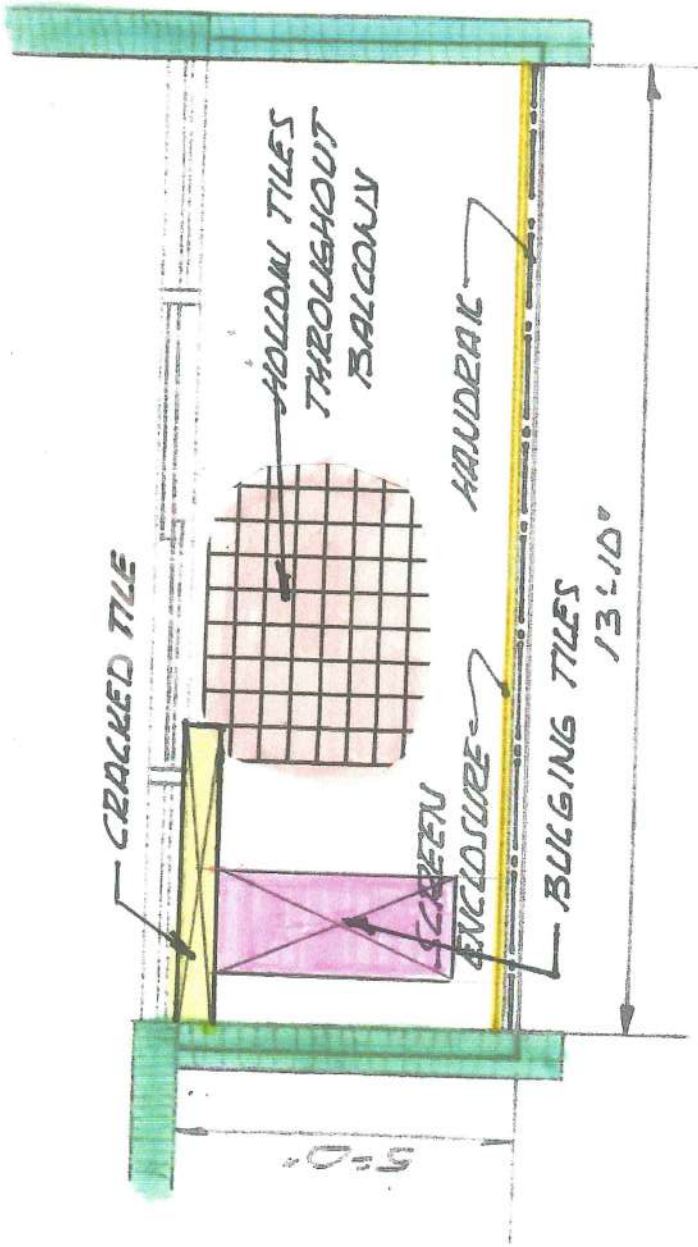
**PROJECT: THE SENATE CONDOMINIUMS**  
**TITLE: DAMAGE SURVEY**

COVER: **TILE** SPRAY DECK OTHER:

UNIT No: **404** DATE: **Nov. 18, 2023** DWG. NO.

**LEGEND**

- CRK -- CRACK
- COL -- COLUMN REPAIR
- E -- EDGE REPAIR
- FD -- FULL DEPTH REPAIR
- PD -- PARTIAL DEPTH REPAIR
- RL -- RAILING REMOVAL
- ST -- STUCCO DAMAGE
- SGD -- SLIDING GLASS DOOR
- SW -- SHUTTER REMOVAL
- OH -- OVERHEAD REPAIR
- OS -- OVERHEAD SPALLS
- OE -- OVERHEAD EDGE REPAIR
- DT -- DELAMINATED TILE
- PI -- POSSIBLE INTRUSION

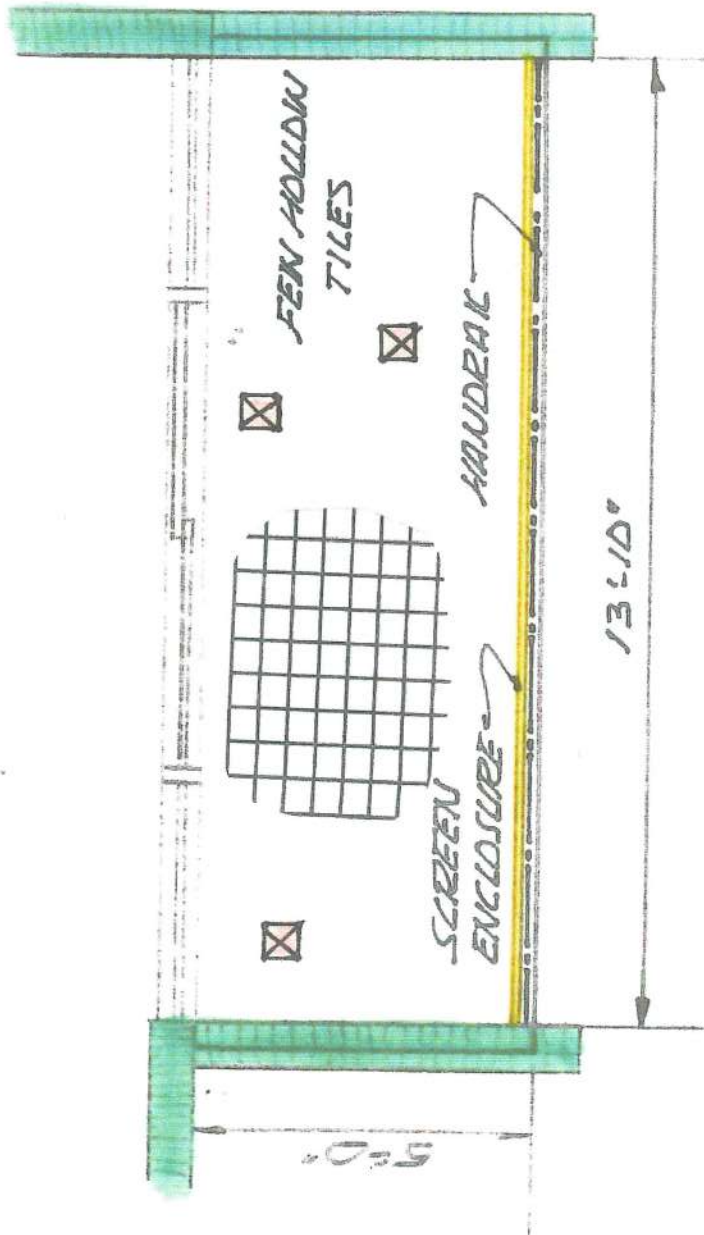


NOTE: ALL TILES TO BE REMOVED AND BALCONY REINSPECTED

BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.	
PROJECT:	THE SENATE CONDOMINIUMS
TITLE:	DAMAGE SURVEY
COVER:	TILE SPRAY DECK OTHER:
UNIT No:	405
	DATE: 12.18.2023
	DWG. NO.

LEGEND	
CRK	CRACK
COL	COLUMN REPAIR
E	EDGE REPAIR
FD	FULL DEPTH REPAIR
PD	PARTIAL DEPTH REPAIR
RL	RAILING REMOVAL
ST	STUCCO DAMAGE
SGD	SLIDING GLASS DOOR
SH	SHUTTER REMOVAL
OH	OVERHEAD REPAIR
OS	OVERHEAD SPALLS
OE	OVERHEAD EDGE REPAIR
DT	DELAMINATED TILE
PI	POSSIBLE INTRUSION



BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.

PROJECT: THE SENATE CONDOMINIUMS  
 TITLE: DAMAGE SURVEY

COVER: **TILE** SPRAY DECK OTHER:

UNIT No: 406 DATE: Nov. 18, 2023 DWG. NO.

LEGEND

- CRK - CRACK
- COL - COLUMN REPAIR
- E - EDGE REPAIR
- FD - FULL DEPTH REPAIR
- PD - PARTIAL DEPTH REPAIR
- RL - RAILING REMOVAL
- ST - STUCCO DAMAGE
- SGD - SLIDING GLASS DOOR
- SM - SHUTTER REMOVAL
- OH - OVERHEAD REPAIR
- OS - OVERHEAD SPALLS
- OE - OVERHEAD EDGE REPAIR
- DT - DELAMINATED TILE
- PI - POSSIBLE INTRUSION





BUILDING NUMBER 2500

Structural Engineering Professionals, Inc.	
PROJECT:	THE SENATE CONDOMINIUMS
TITLE:	DAMAGE SURVEY
COVER:	TILE SPRAY DECK OTHER:
UNIT No:	407
DATE:	NOV. 18, 2023
DWG. NO.	

LEGEND	
CRK -- CRACK	SGD -- SLIDING GLASS DOOR
COL -- COLUMN REPAIR	SH -- SHUTTER REMOVAL
E -- EDGE REPAIR	OH -- OVERHEAD REPAIR
FD -- FULL DEPTH REPAIR	OS -- OVERHEAD SPALLS
PD -- PARTIAL DEPTH REPAIR	OE -- OVERHEAD EDGE REPAIR
RL -- RAILING REMOVAL	DT -- DELAMINATED TILE
ST -- STUCCO DAMAGE	PI -- POSSIBLE INTRUSION



Roof Surveys, Inc.  
P.O. Box 5610  
Lighthouse Point, Florida 33074

Roof Moisture Scan & Condition Analysis Report  
December 6, 2023

Structural Engineering Professionals, Inc.

Lands of the President  
2500 Presidential Way  
West Palm Beach, Florida

*(All accessible low slope roof areas)*





David A. Smith  
Director

Tel: (561) 545-9320  
Cell: (561) 808-6141



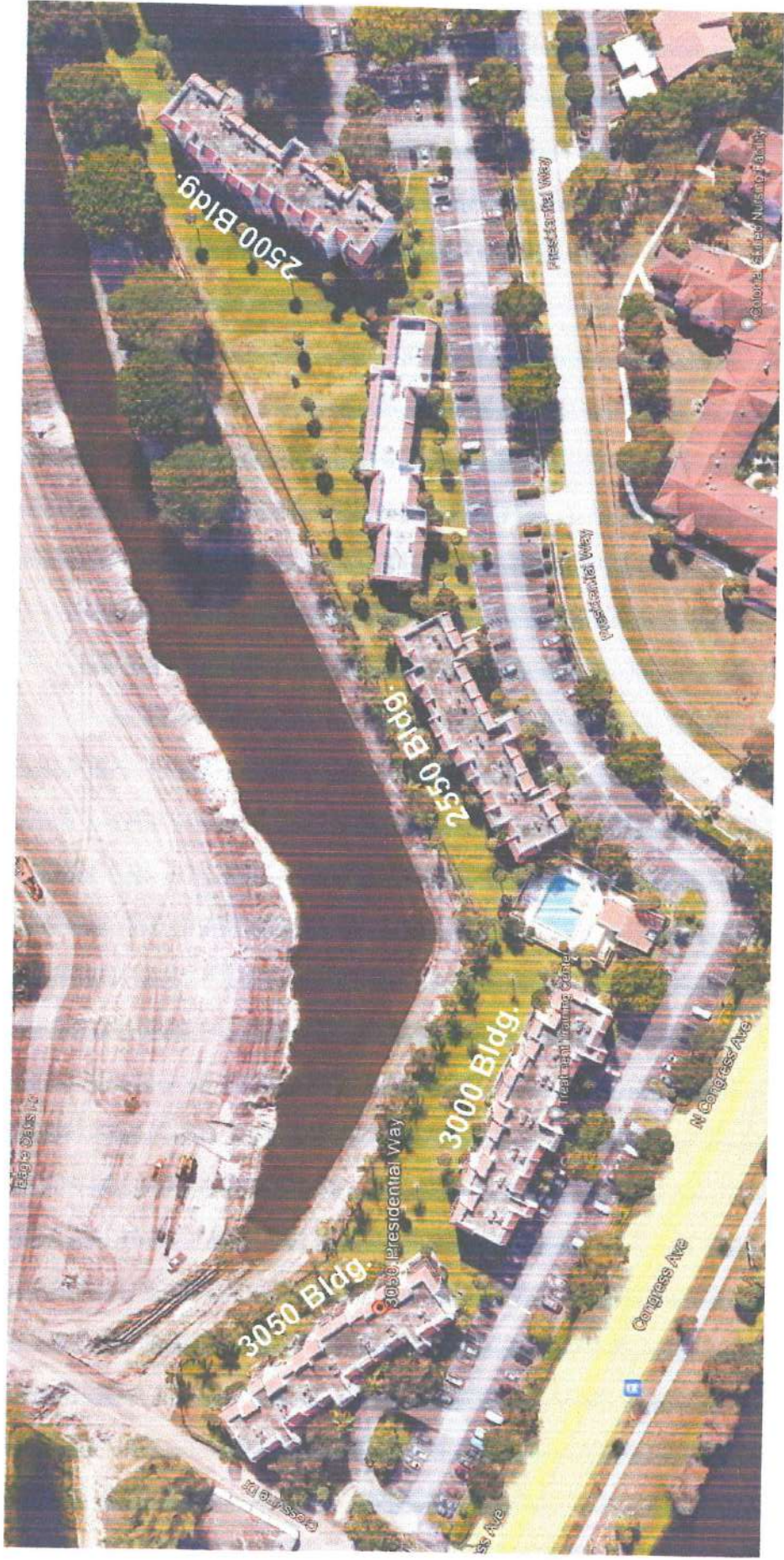
P.O. Box 5610  
Lighthouse Point, Florida 33074

*Lands of the President Condo – 2500 Presidential Way, West Palm Beach, Fl.*





**Lands of the President Condo — 2500 Presidential Way, West Palm Beach, FL.**







P.O. Box 5610 - Lighthouse Point, Florida 33074  
Off. (954) 545-9320 - [Roofsurveys@bellsouth.net](mailto:Roofsurveys@bellsouth.net)

**DATE** - December 7, 2023

**REPORT TO** - Mickey Westman  
Structural Engineering Professionals, Inc.  
751 Northlake Boulevard  
North Palm Beach, Florida 33408

**REPORT OF** - Nondestructive radioisotopic moisture survey and condition analysis report.  
Core sample description is also enclosed.

**LOCATION** - **Lands of the President Condominium** – 2500 Presidential Way, West Palm Beach, Florida (*All accessible low slope roof areas*)

As requested by Structural Engineering Professionals, Inc., Roof Surveys Inc. visited the above property location during the day of November 28<sup>th</sup>, 2023. The purpose of this site investigation was to perform a roof condition analysis and moisture survey. Roof Surveys, Inc. achieves this through the use of a nondestructive radioisotopic moisture survey. This moisture survey can then be used as a tool to interpret the roof's overall moisture integrity, and as a leak source detection.

#### **TEST PROCEDURE** -

The investigation procedure employs a staggered 5' X 10' grid monitoring system to record relative moisture concentration using a nondestructive radioisotopic moisture gauge. These moisture readings are recorded and displayed on the Graphic Interpretation Sheet(s) enclosed. The roof systems are physically marked with bright orange paint on a five-foot increment, both horizontally and vertically. These moisture readings represent the amount of subsurface hydrogen (**moisture**) present at the exact location of the reading. Additional readings were obtained in areas where subsurface moisture was detected.

The test procedure involves the utilization of a radioisotopic (*Troxler Moisture Gauge*) which emits high-energy ("fast") neutrons aimed at the target area. From their collisions with the atoms in the insulating material, some neutrons are reflected to the vicinity of the gauge. Neutrons that hit hydrogen atoms are slowed and counted by the instrument. The number of returning ("slow") neutrons indicates the amount of hydrogen atoms in the tested material. The number of hydrogen atoms, which constitute two-thirds of the atoms in water, becomes the index of the areas of moisture in the tested roofing system.

The results of the moisture test are confirmed utilizing alternative technologies. These include the use of a nondestructive Tramex gauge, which works on the principle of induction of an electrical current. Our destructive testing process includes the use of a Delmhorst capacitance meter. This device also works on the principles of induction. Combined with the core sample, we are capable of having a visual verification of the moisture conditions.

This detected subsurface moisture is shown as the blue shaded or crosshatched areas on the Graphic Interpretation Sheet contained within this report. All deficiencies identified during the inspection process are either photographed, or physically circled with bright orange paint, or both.

### **GRAPHIC INTERPRETATION SHEET(S) -**

The Graphic Interpretation Sheet(s) identifies the exact dimension of the roof system, and also documents the approximate location of any roof penetrations (*soil vents, interior drains, ventilator curbs, A/C sleepers*). For this particular project the building's roof system is depicted on one "Graphic Sheet". This individual graphic sheet contains all of the roof system detail, along with the location of any entrapped moisture. The separate roof areas and levels are identified and labeled on the sheets. The site plan combines the sections with their location within the complex (*if applicable*).

The legend on the right-hand side indicates the hydrogen value as related to subsurface moisture at that exact location within the roof system. The legend indicates that all hydrogen levels exceeding twenty-five (25) represent light subsurface moisture within the roof system. All hydrogen levels exceeding thirty-four (34) represent increased subsurface moisture within the roof system. As the hydrogen value continues to increase so does the percentage amount of moisture that it represents.

### **PHOTOGRAPHIC ANALYSIS -**

A total of fourteen photographs were taken during the investigation of the roof systems. The location of the photographs is denoted by the purple-colored numerals on the graphic sheets. These numerals correspond to the enclosed photographs and their respective descriptions. These photographs provide overviews of all roof areas, storm related damages, preventative maintenance details, and areas of concern. Please thoroughly review these along with their locations.

### **ROOF SYSTEM DETAIL -**

The roof system appears to be constructed using multiple plies of coal tar pitch applied built-up membranes and base sheet. The surfaces of these membranes were covered with an application of mineral aggregate, also adhered using coal tar pitch. The roof system was installed over an unidentified insulation material. The entire roof system and all of the mechanical equipment are supported by a concrete deck.

The perimeters of the roof system terminate against a combination of stucco covered concrete parapet walls and modified bitumen flashed wood interior mansard walls. The base flashing membranes are covered with an anchored metal counter flashing detail. The roof system was designed with marginal slope, attempting to direct collected surface water towards a series of interior drains. The buildings design also includes a series of through wall emergency scupper drains (*see core photos & sheets*).

*\*\* This roof system information is for internal report purposes and should not be used for any repair specifications or guidelines. Due to potential warranty constraints physical core sample procedures were not conducted. The descriptions and corresponding legends are based upon visual identification and professional interpretation.*

### **OBSERVATIONS -**

According to Palm Beach County Property Appraisers web site the buildings construction was completed in 1975. Building management did not indicate when the current roof systems were installed. Google Earth historical satellite imagery suggests that the current roof systems were installed between 2006 and 2007, approximately seventeen years ago. Typically, a coal tar pitch built-up low slope roof system, in South Florida, will be effective for thirty to thirty-five years. This estimate varies based upon quality of materials, workmanship, slope for drainage, and preventative maintenance procedures during this span.

As shown on our graphic interpretation sheet there were no areas of subsurface water detected within the roof system materials. Subsurface water will typically affect the membranes (inner ply) or underlying insulation materials. Entrapped subsurface water can travel following a path of least resistance and may eventually enter into the interiors of the buildings. Our moisture survey process detected only normal hydrogen values consistent with dry roof materials.

Visually the roof systems appear to be in a well-maintained condition. There is abundant evidence of an effective preventative maintenance program which has targeted the penetrations, base & curbs flashing, interior drain details, and surrounding concrete parapet walls. It appears that all of the exposed flashing details have also been recently covered with a silver reflective ultra-violet coating. Our inspection found only one minor pitch pan deficiency that should be addressed (*see photo No. 13*).

### **CONCLUSIONS -**

As previously stated, Coal Tar Pitch roof systems are considered the industry standard. Properly maintained the roof system can remain effective for thirty to thirty-five years of age. It is important to conduct timely maintenance and repairs on all of the associated penetration, drain, curb, and flashing details. It is our estimation that the current roof system will remain effective for at least an additional ten to twelve years.

It should be understood that the data and sample collected, along with this written report prepared by Roof Surveys, Inc. is representative of the present roof condition. Roof Surveys, Inc. wishes to thank building management for the opportunity to assist with their roofing needs. If Roof Surveys, Inc. can be of any further assistance please kindly advise.

Respectfully submitted,

Roof Surveys, Inc.

*David A. Smith*

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David A. Smith  
Director



# Lands of the President Condo - 2500 Presidential Way, WPB, Florida

Nov. 28, 2023



N

Graphic Sheet

2500 Bldg.

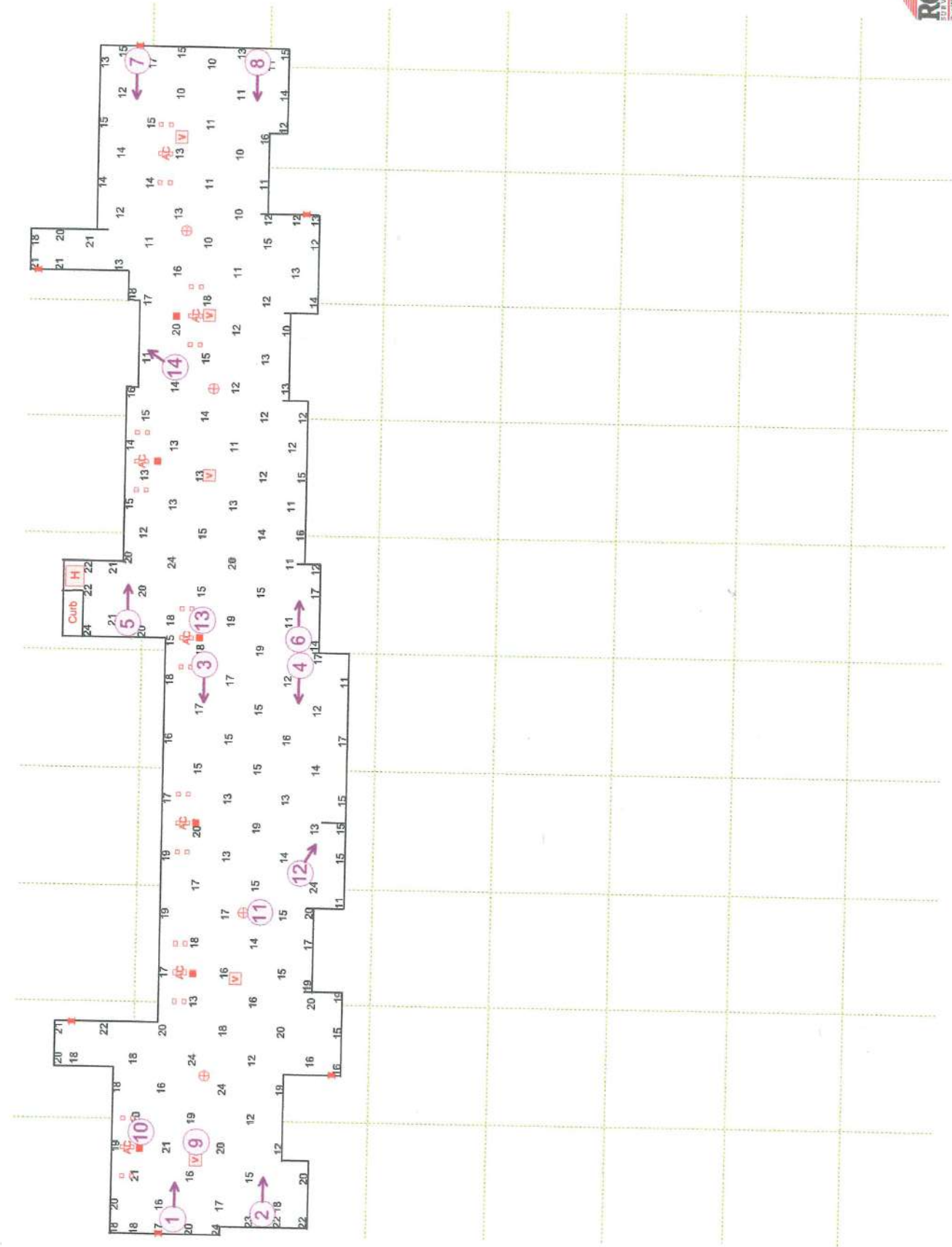


## Moisture Legend

- (0 - 25) Dry Subsurface
- (26 -34) Damp Subsurface
- (35 -UP) Wet Subsurface

## Penetrations

- AC Chase
- ⊕ Interior Drain
- ∇ Vent Curb
- Capped Curb
- I Scupper Drain
- ⌒ Photo Location







1. Overview of roof (2500 Bldg) looking W. from SE. corner



2. Overview of roof (2500 Bldg) looking W. from NE. corner



3. Overview of roof (2500 Bldg) looking E. from S. center



4. Overview of roof (2500 Bldg) looking E. from N. center





5. Overview of roof (2500 Bldg) looking W. from S. center



6. Overview of roof (2500 Bldg) looking W. from N. center



7. Overview of roof (2500 Bldg) looking E. from SW. corner



8. Overview of roof (2500 Bldg) looking E. from SW. corner





9. View of typical ventilator curb detail, well maintained



10. View of typical AC stand/chase detail, well maintained



11. View of typical drain & soil stack detail, well maintained



12. View of typical termination base detail, well maintained



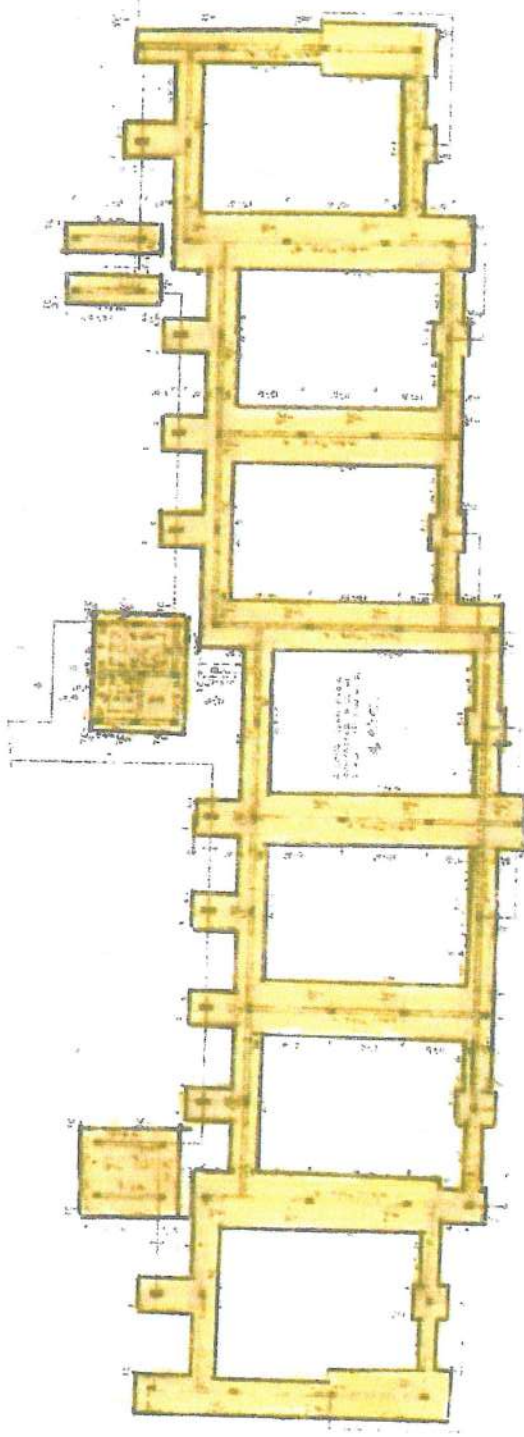


**13** Penetration pan slightly separated from fill, repair



**14** View of typical parapet wall detail, well maintained

SEALS AND STAMPS AND SIGNATURES



FOUNDATION PLAN ( 4 STORY BUILDING AS SHOWN)

FOUNDATION PLAN ( 5 STORY BUILDING SIMILAR)

NO.	DESCRIPTION	QTY	UNIT PRICE	TOTAL
1	CONCRETE	100	1.00	100.00
2	STEEL	50	2.00	100.00
3	BRICK	200	0.50	100.00
4	PLASTER	100	1.00	100.00
5	PAINT	100	1.00	100.00
6	GLASS	100	1.00	100.00
7	DOORS	10	10.00	100.00
8	WINDOWS	100	1.00	100.00
9	ROOFING	100	1.00	100.00
10	MECHANICAL	100	1.00	100.00
11	ELECTRICAL	100	1.00	100.00
12	LANDSCAPE	100	1.00	100.00
13	UTILITIES	100	1.00	100.00
14	FINISHES	100	1.00	100.00
15	LABOR	100	1.00	100.00
16	PERMITS	100	1.00	100.00
17	INSURANCE	100	1.00	100.00
18	CONTINGENCY	100	1.00	100.00
19	TOTAL			1700.00

**GENERAL NOTES**  
 1. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.  
 2. ALL WALLS ARE TO BE CONCRETE UNLESS OTHERWISE NOTED.  
 3. ALL ROOFING IS TO BE AS SHOWN.  
 4. ALL FINISHES ARE TO BE AS SHOWN.  
 5. ALL UTILITIES ARE TO BE AS SHOWN.  
 6. ALL PERMITS ARE TO BE OBTAINED BY THE CONTRACTOR.  
 7. ALL INSURANCE IS TO BE MAINTAINED BY THE CONTRACTOR.  
 8. ALL CONTINGENCY IS TO BE AS SHOWN.

**EXHIBIT NO. 1**



AIA

PHACOC & LEVINS  
ARCHITECTS INCORPORATED  
PALM BEACH, FLORIDA

FLORIDA

THE SENATE  
PRESIDENT COUNTRY CLUB

1997 PALM BEACH

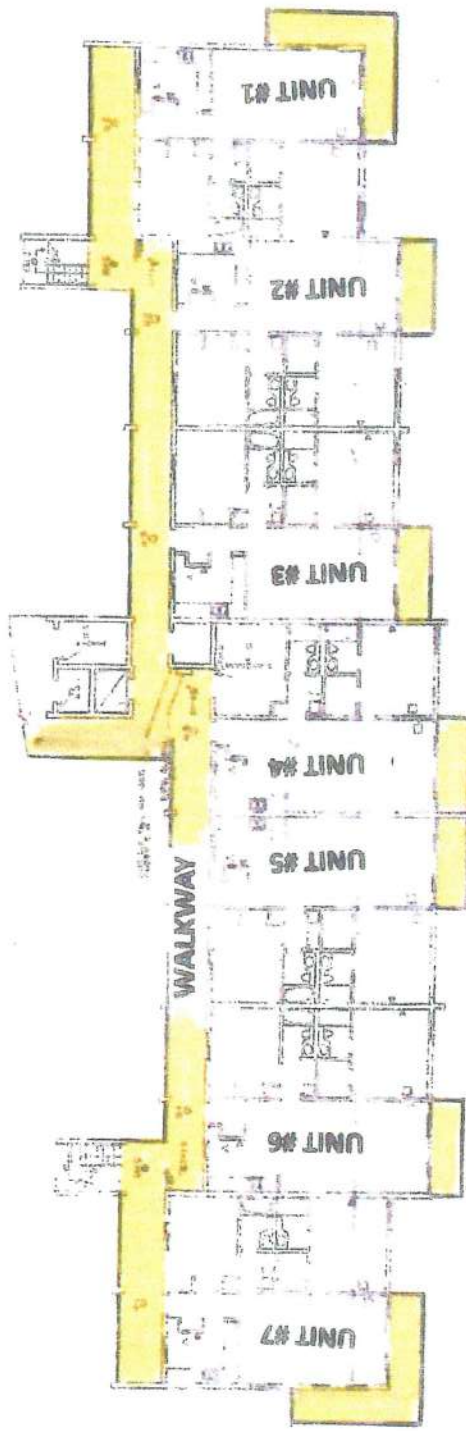


DATE 0-2-79  
SCALE 1/8" = 1'-0"  
SHEET NO. 1

EXHIBIT NO. 2



TYPICAL FLOOR PLAN



FIRST FLOOR PLAN

X



**BUILDING 2500**



**STACK #1 EAST ELEVATION**



**STACK #2 EAST ELEVATION**



**STACK #3 EAST ELEVATION**



**STACK #4 & 5 EAST ELEVATION**

STACK #3





**STRUCTURAL ENGINEERING PROFESSIONALS, INC.**

CA 8539

*Structural, Mechanical & Civil Engineering Consultants*

**BUILDING 2500**



**STACK #6 EAST ELEVATION**



**STACK #7 EAST ELEVATION**



**FIRST FLOOR WALKWAY**



**WALKWAYS - FLOORS 2 TO 4**

STACK #3

1880 82<sup>nd</sup> Ave, Suite 202F ♦ Vero Beach, Florida, 32966  
Office (561) 844-4060 ♦ [www.struc-engineers.com](http://www.struc-engineers.com)



**BUILDING 2500**



**TYPICAL STAIR ELEVATION**



**TYPICAL WALKWAY HAND RAILINGS**



**ROOF VENTS & A/C UNITS ON BUILT-UP GRAVEL ROOF**





**BUILDING 2500**



**NORTH ROOF VIEW**

**A/C UNITS, MANSARD ROOF ENCLOSURES AND  
TYPICAL PARAPET WALLS**



**TYPICAL PARAPET WALLS BETWEEN  
MANSARD ENCLOSURES**



**TYPICAL ROOF DRAIN**



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**BUILDING 2500**



**TYPICAL PLATFORM ELEVATED AIR CONDITIONING  
UNITS AND ROOF VENT**



**TYPICAL MANSARD TERRACOTTA /CLAY ROOFS**