



June 26, 2024

Michael Richmond, AIA NCARB LEED AP  
Brame Heck Architects, Inc.  
606 NE 1<sup>st</sup> Street  
Gainesville, Florida 32601

Subject: Summary Report of a Limited Structural Assessment  
**Sunrise Residence Inn**  
Gainesville, Alachua County, Florida  
GSE Project No. 16612

GSE Engineering & Consulting, Inc. (GSE) is pleased to present this summary report of a Limited Structural Assessment (LSA) for the above-referenced project. Our services have been provided in accordance with GSE Proposal 2024-312 dated May 15, 2024.

### Purpose

The purpose of this LSA was to observe, document, and provide an opinion of the overall condition of the accessible areas of the two structures. The remainder of this report summarizes our observations and our associated assessment and recommendations.

### Background Information

This project consists of two apartment buildings, located at 2105 SW 14<sup>th</sup> Street and 2120 SW 14<sup>th</sup> Street in Gainesville, Alachua County, Florida. Both two-story structures consist of concrete masonry unit (CMU) walls with shallow concrete foundations. The roofs are supported by pre-engineered wood trusses. GSE was not provided with construction plans for review. GSE is also providing a Phase I Environmental Site Assessment (Phase I ESA) under GSE Project No. 16612A.

You requested that GSE provide this LSA, along with GSE's Phase I ESA, so that you could add our findings to your report to the Alachua County Building Department, who plan to purchase the two buildings.

### Summary of Site Visit

Everett "Rett" L. Skipper, E.I. with GSE visited the site with you on June 6, 2024, to observe and document the site conditions. Due to access constraints and no site representative available, the site visit was rescheduled for June 7, 2024. GSE elected to stay and document the damage around the outside of the two structures on June 6<sup>th</sup>.

GSE returned with you on June 7, 2024, to continue observing and documenting the site conditions, along with the head of maintenance for the two structures, Barry Vaughn. Mr. Vaughn answered questions regarding the two structures and provided historical information regarding the history of previous damage and repairs.

This project consists of two apartment building structures with similar construction types. The larger structure has 22 units (Tax Parcel number 15552-005-000) and is located at 2105 SW 14<sup>th</sup> Street. This building will be referred to as Building 1. The smaller structure has 14 units (Tax Parcel number 15552-002-000) and is located at 2120 SW 14<sup>th</sup> Street. This building will be referred to as Building 2.

Building 1 faces towards the west. Building 2 faces towards the east. The buildings are occupied and being used for residential housing. Along with you and your representatives, GSE entered approximately half of the units of each building and took representative photographs of observable damage. The approximate locations of damage were documented and included here (Figures 2A & 2B).

When interviewing Mr. Vaughn, he described the areas of most concern. Mr. Vaughn did not know of any major structural issues, and described plumbing, water pressure issues, and flooding from stormwater runoff as the main concerns.

### **Summary of Observed Conditions**

The following is a summary of our observations and assessment of the observed damage. Refer to Figures 2A & 2B for the approximate locations.

Separation and cracking were identified in the CMU walls at many locations throughout the exterior walls of both structures. The observed CMU wall cracks were hairline to 1/8 inches in width. At Building 1, two locations of CMU cracking damage appear to have been repaired. A Hilti PS-35 ferro-detector was used to attempt to locate the spacing and orientation of reinforcing within portions of the CMU walls. Vertical reinforcing was only able to be confirmed within the corners of the structure. Ladder reinforcing appears to be installed horizontally within the mortar joints at 2 feet O.C.

There are walkways along the front of each structure which are supported by 3"x3" steel columns, perimeter beams and what appears to be metal pan walkways filled with concrete. The front edge beams were covered with wood-like sheathing, and access holes showed wood framing near the columns. Oxidation and rusting damage of metal was observed in many locations throughout the walkway structures of the apartment buildings, including at the base of columns. The worst oxidation and rusting damage is located along the front edge of the walkway at Building 1 along the top edge of the metal pan that supports the concrete walkway. Additionally, concrete cracking was identified in many areas of the walkway slabs. Each walkway has two sets of stairs, one at each end. These stairs have steel stringers with steel pans and concrete treads. Rusting and oxidation was observed throughout the stair treads and top landings. At Building 2, the stairs at the north end of the building show signs of a car running into the handrail. Mr. Vaughn confirmed this theory. The eastern bottom post of the handrail has sheared at the base of the post where the column had significant corrosion, and the entire handrail has shifted halfway into the stair walk path.

GSE entered the interior of many of the units to inspect the structural supporting members. None of the interior CMU walls showed signs of damage. The walls appear to have been painted recently in many of the units. The CMU walls extend from the ground floor to the second floor ceiling height. The roof structure is pre-engineered wood trusses spaced at approximately 2 feet O.C. and bear on the top of the CMU walls. The second story floor system is 2x6 wood joists spaced at 16 inches O.C. and hang on the side of the CMU walls with hangers. These joists have wood x-bracing made of 1x4s.

At the southwest corner of Building 2, the foundation shows signs of erosion and undermining of the foundation for approximately half of the length of the rear exterior wall (approximately 50 feet long). This undermining is exposing approximately 6 inches of the 12-inch-thick foundation. Within 10 to 20 feet of the building, there is a steep drop-off that drops into a creek.

The retention pond directly south of Building 1 was in the process of having remedial work performed over the course of the two days of the assessment. During the first day, the pond was being pumped out and dirt was being stockpiled into the pond. During the second day, the pond was being graded with a skid-steer loader towards a drain at the east end of the pond. Mr. Vaughn described that over the years, the water within the pond has overflowed many times. We understand that this water pours down the parking lot of the larger apartment building. We understand that recently, three of the units closest to the retention pond experienced flooding due to the overflowing of the pond. The dirt patterns in the parking lot showed signs of large amounts of water flowing from the pond down the parking lot from south to north. No structural damage was observable within the units that experienced flooding.

### **Assessment and Recommendations**

GSE did not perform any geotechnical subsurface investigation or testing during this limited structural assessment.

It is GSE's opinion that the erosion along the back of Building 2 can be attributed to stormwater erosion. Neither structure has gutters installed to help collect the stormwater runoff and divert the water away from the foundations of the structures. GSE recommends that stormwater controls be implemented for both structures including the installation of gutters and grading the soils surrounding the structures to slope away from the foundations. Both buildings would benefit from the installation of erosion protection including erosion preventative vegetation, but this is strongly recommended along the back of Building 2.

It is GSE's opinion that the CMU walls overall are in good condition. Cracking damage observed in the exterior CMU walls of both structures is not a structural concern. Most of the cracks in the exterior CMU walls are attributed to differential movement resulting from long-term post-construction settlement of the soils supporting the foundation. The differential settlement is consistent with foundation settlement that is within an expected range for the type and age of construction. Various factors influence actual post-construction differential settlement including lack of adequate compaction, disturbance of the foundation supporting soils during construction, surface water diversion, foundation embedment, and erosion. GSE recommends patching/filling all cracks larger than 1/16 inch and repainting the exterior CMU walls with an elastomeric paint system.

The oxidation, rusting, and cracking damage observed within the walkways is a structural concern. At the time of the assessment, much of the support framing for the walkways and the underside of the concrete slabs were covered and could not be properly inspected. It is GSE's professional opinion that all framing and the underside of walkway slabs be uncovered, all oxidation/rust removed, and members cleaned to determine the extent of damage to the walkway support framing and concrete slab. This should be done immediately, or shoring added mid-way between columns prior to a full inspection.

One of the handrails for the stairs at Building 2 has been hit by a car and sheared off at the base of the bottom post nearest the parking lot. It is our opinion that this railing be repaired immediately and that the base of all columns be exposed to properly inspect and determine the amount of corrosion present. This should be part of the overall inspections recommended in the paragraph above.

Mr. Vaughn's major concerns were plumbing, water pressure issues, and flooding from stormwater runoff. No apparent structural damage was observed in the units where historical flooding was described.

**Limitations**

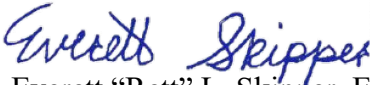
The opinions presented above are based upon review of provided information, interviews, and our experience with this type of construction. Our services were not intended to confirm the original structural design of the structure or the pre-engineered roof truss system. GSE performed no destructive testing within the scope of our assessment.

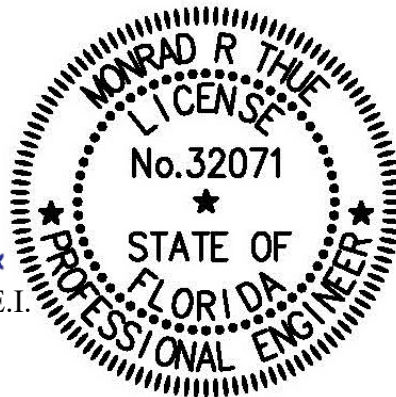
**Closing**

GSE appreciates the opportunity to assist you with this matter. Should you have any questions or require clarification related to the above summary, please do not hesitate to contact us.

Sincerely,

**GSE Engineering & Consulting, Inc.**

  
Everett "Rett" L. Skipper, E.I.  
Staff Engineer



This item has been digitally signed and sealed by

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

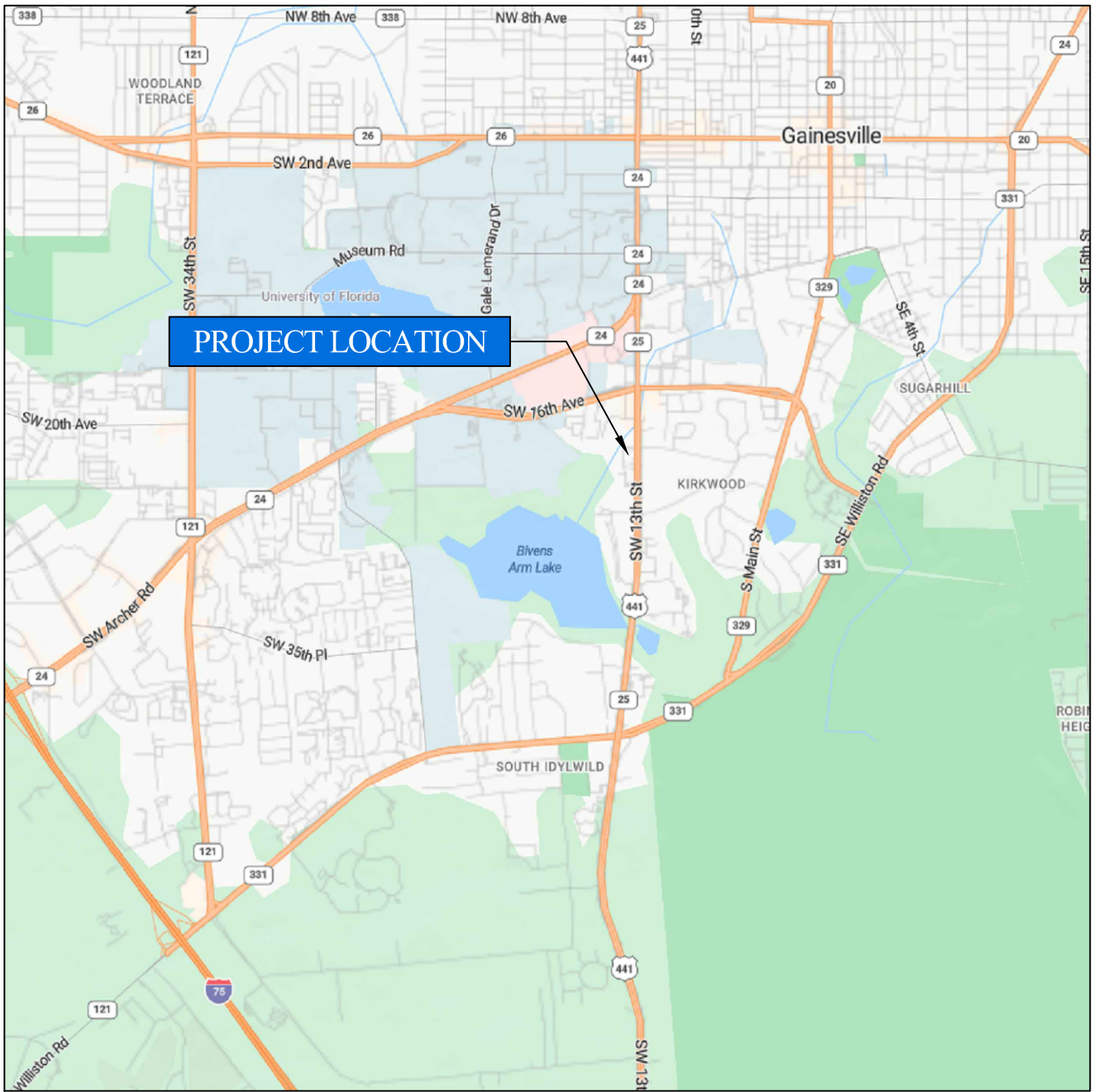
Monrad R. Thue, P.E.  
Principal Structural Engineer  
Florida Registration No. 32071

ELS/MRT:tlf  
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- Attachments: Figure 1 – Project Site Location Map  
Figure 2A – Site Plan Showing Locations and Representative Photographs of Damage  
Figure 2B – Site Plan Showing Locations and Representative Photographs of Damage

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## **ATTACHMENTS**



NOT TO SCALE

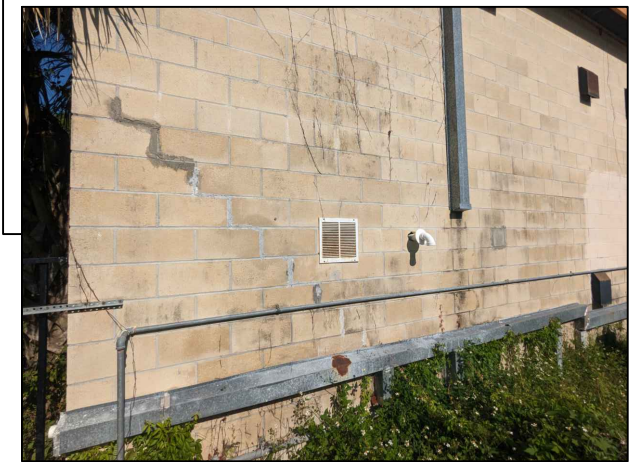
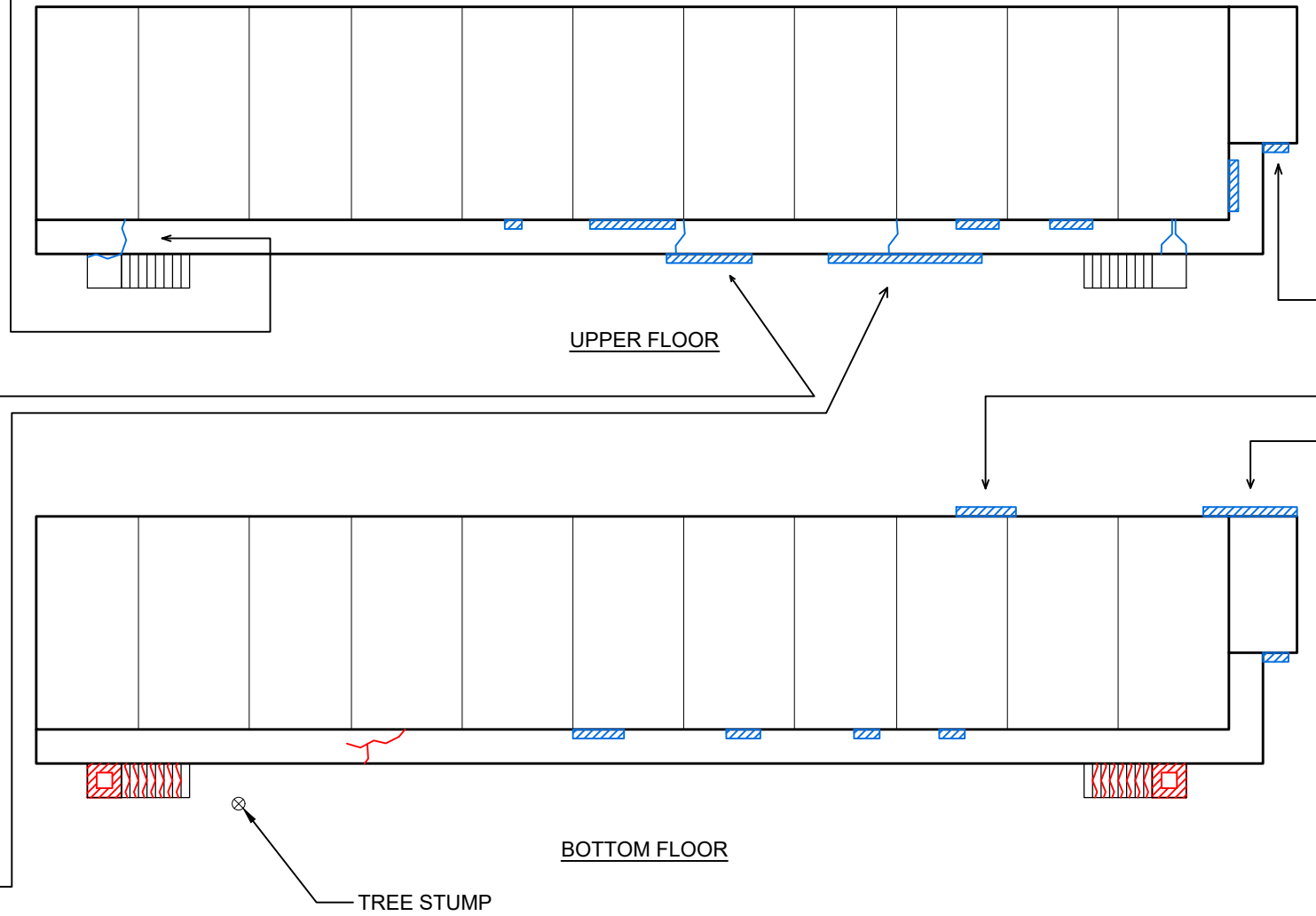
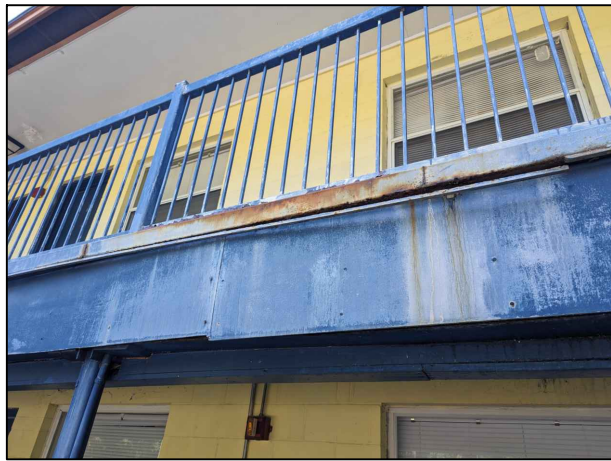
PROJECT SITE LOCATION MAP





SUNRISE RESIDENCE INN  
 GAINESVILLE, ALACHUA COUNTY, FLORIDA  
 GSE PROJECT NO. 16612

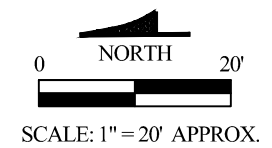
DESIGNED BY : ELS  
 CHECKED BY : JCN  
 DRAWN BY : JMG



FIGURE  
 1



- LEGEND:
-  SLAB / FLOOR CRACKING
  -  CEILING CRACKING
  -  CEILING DAMAGE
  -  WALL DAMAGE



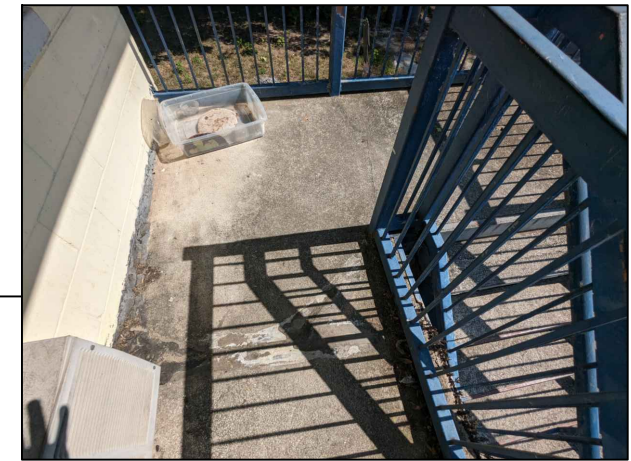
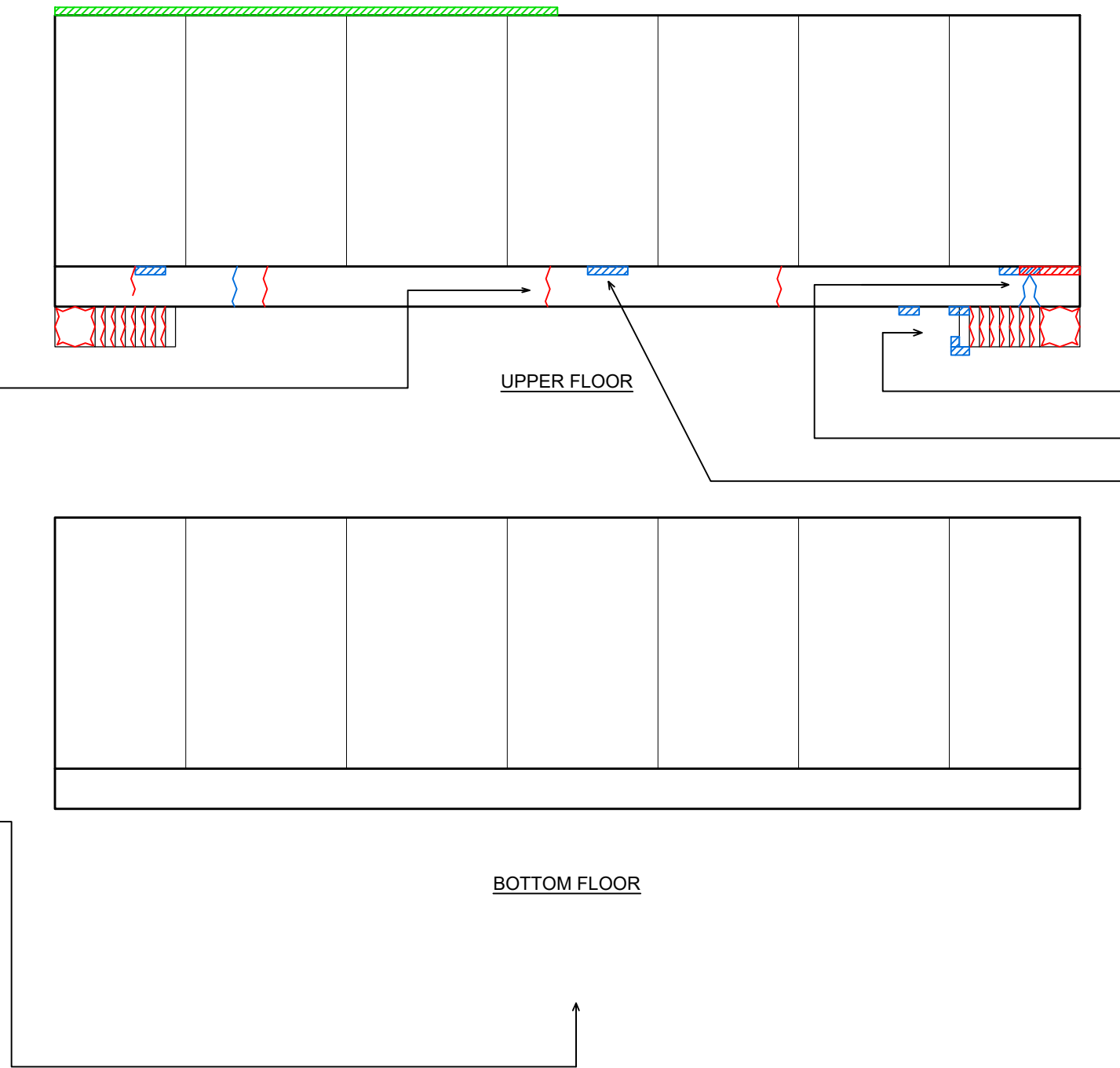
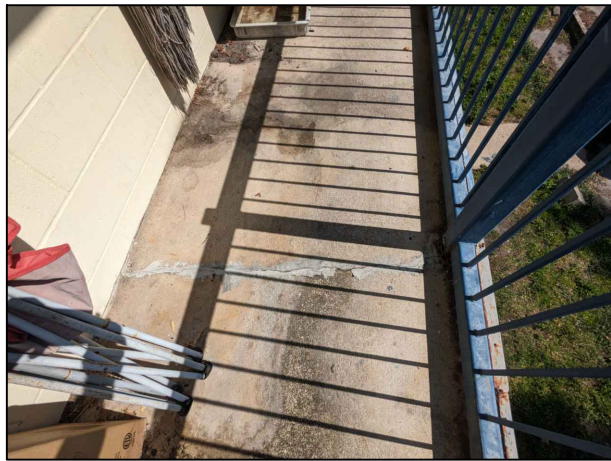
SITE PLAN SHOWING LOCATIONS AND REPRESENTATIVE PHOTOGRAPHS OF DAMAGE






DESIGNED BY : ELS  
 CHECKED BY : JCN  
 DRAWN BY : JMG

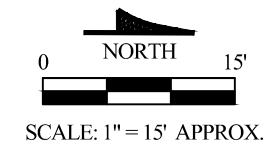
SUNRISE RESIDENCE INN  
 GAINESVILLE, ALACHUA COUNTY, FLORIDA  
 GSE PROJECT NO. 16612

FIGURE  
 2A





- LEGEND:**
-  SLAB / FLOOR CRACKING
  -  CEILING CRACKING
  -  CEILING DAMAGE
  -  WALL DAMAGE
  -  EROSION DAMAGE



SCALE: 1" = 15' APPROX.

SITE PLAN SHOWING LOCATIONS AND REPRESENTATIVE PHOTOGRAPHS OF DAMAGE

DESIGNED BY : ELS  
 CHECKED BY : JCN  
 DRAWN BY : JMG

SUNRISE RESIDENCE INN  
 GAINESVILLE, ALACHUA COUNTY, FLORIDA  
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FIGURE  
 2B

