### 25/30 YEAR MILESTONE INSPECTION



**Prepared For:** 

Ormond Heritage Condominium Management
Association
1 John Anderson Drive
Ormond Beach, FL 32176

**Prepared By** 

Universal Engineering Sciences
911 Beville Road
Suite 3
South Daytona, FL 32119

**Report Date** 

Inspection Date(s)

9/1/22,9/2/22, 9/16/22, 9/20/22



Geotechnical Engineering
Construction Materials Testing and Inspection
Code Compliance
Environmental
Building Envelope

### **Grounded in Excellence**

Attention:

Mr. Tyler Brown, Manager

Phone:

(398) 672-6778

Email:

OCHManager@gmail.com

Reference:

25/30 Year Phase I Milestone Structural Inspections for Condominium and Cooperative Buildings

UES Project No: 0415.2200355.0000

**Building/Property Identification/Address:** 

1 John Anderson Drive, Ormond Beach, FL 32176

Dear Mr. Brown,

Universal Engineering Sciences (UES) has completed the mandatory **PHASE 1** milestone inspection as required for condominiums and cooperative buildings for the above referenced property(ies). UES's assessment was performed in general accordance with Florida Statute (FS)553.899 (effective May 26, 2022) and local requirements of the Authority Having Jurisdiction (AHJ).

Please contact the undersigned if you have any questions concerning UES's **PHASE 1** Report. UES appreciates this opportunity to provide our professional services to . Pursuant to FS 553.899, UES provides herein a Summary of Material Findings and Recommendations

Respectfully Submitted, C

Universal Engineering Sciences LLC

COA 549

MATE OF

Brian Pohl, P.E. Senior Project Manager Florida Professional Engineer No. 60216

A Raille

Digitally signed by Roger K Derick Location: This item has been digitally signed and sealed by Roger K Derick 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.

Date: 2022.11.29 14:48:31 -05'00'

R. Kenneth Derick, MS, CBO, PE Florida PE No. 37711 Senior Principal Engineer This item has been digitally signed and sealed by R. Kenneth Derick, PE, and Brian (Pohl) PE, P.E. on the date indicated here.

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

An original signed and sealed copy of this letter and the accompanying UES PHASE 1 Report has been retained in UES's office.

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### 1.0 INTRODUCTION

The purpose of the **PHASE 1** inspection is to comply with the requirements set forth by FS 553.899 and local requirements of the AHJ, which requires, in part, the following:

- Mandates a statewide building milestone inspection requirement for condominiums and cooperative buildings
  that are <u>three stories or more in height</u>, 30 years after initial occupancy and 25 years after initial occupancy for
  buildings located within three miles of the coastline.
- If a milestone inspection is required and the building's certificate of occupancy was issued on or before <u>July 1</u>, <u>1992</u>, the building's initial milestone inspection must be performed before <u>December 31</u>, <u>2024</u>. If the building is within 3 miles of the coast and the building's certificate of occupancy was issued on or before <u>July 1</u>, <u>1997</u>, the building's initial milestone inspection must be performed before <u>December 31</u>, <u>2024</u>.
- Requires building officials to provide written notice to associations when buildings must be inspected. Inspections
  must be performed within 180 days of notification.
- Requires inspections every 10 years after a building's initial "phase 1" inspection.
- Requires an additional, more intensive inspection, or a "phase 2 inspection," if a building's phase 1 inspection reveals substantial structural deterioration.

The assessment was based on non-intrusive, non-destructive observations of the readily accessible areas of the property and the information available at the time of our site visit. Therefore, UES's descriptions, conclusions and recommendations were based solely on our observations of the various components and experience with similar projects. UES does makes no representations that this report is a building code, safety, regulatory, environmental, or all-encompassing compliance inspection.

### 2.0 SCOPE OF SERVICES

For the **PHASE 1** milestone inspection report (the "report"), UES's licensed architects and/or engineers performed a visual examination of habitable and non-habitable areas of the building(s), including the major structural components, and herein provides qualitative assessment of the structural conditions of the building.

The report documents observations made during the walk-through survey and identified existing visible physical deficiencies within the structure. The evaluation focused on critical structural components of the structure and identified areas exhibiting any signs of "substantial structural deterioration".

"<u>Substantial structural deterioration</u>" means substantial structural distress that negatively affects a building's general structural condition and integrity. The term does not include surface imperfections such as cracks, distortion, sagging, deflections, misalignment, signs of leakage, or peeling of finishes unless the licensed engineer or architect performing the phase one inspection determines that such surface imperfections are a sign of substantial structural deterioration.

The assessment was based on non-intrusive, non-destructive observations of the readily accessible areas of habitable and non-habitable areas available at the time of our site visit. Descriptions and findings are based solely on the observations of the various building components and our experiences with similar projects. UES conducted a walkthrough survey as well as performed aerial videography (drone footage) for areas that were not be accessible by normal methods (e.g., parapets, balconies).

In general, this report includes the following:

- A separate summary of the material findings and recommendations in the inspection report to the condominium association or cooperative association, and to the building official of the local government which has jurisdiction.
- Seal and signature, or the electronic signature, of the licensed engineer or architect who performed the inspection
- The manner and type of inspection forming the basis for the inspection report.
- Identification of any substantial structural deterioration, within a reasonable professional probability based on the scope of the inspection, and description of the extent of such deterioration, and identification of any recommended repairs for such deterioration.
- A statement of whether unsafe or dangerous conditions, as those terms are defined in the Florida Building Code, were observed.
- Recommendation of any remedial or preventive repair for any items that are damaged but are not substantial structural deterioration.
- Identification and description of any items requiring further inspection.

### 3.0 SCOPE EXCLUSIONS

The scope of services included observations of accessible areas only. UES toured the property with the Associations representative Mr. Tyler Brown. Our observations have been limited to the current characteristics of the building structure. Our evaluation has not included laboratory analysis, geotechnical investigations, engineering evaluations of structural design nor other systems, including invasive investigations of site, building, or concrete components. Additionally, this scope does not include an environmental assessment such as air quality (mold survey) or evaluation of asbestos.

This scope does not include a **PHASE 2** inspection. If a **PHASE 2** inspection is required, UES will propose these services under separate cover. Please note that additional testing, including but not limited to sampling and destructive surveys, may be required during a **PHASE 2** inspection.

### 4.0 STANDARD OF CARE AND WARRANTIES

UES performed the Milestone **PHASE 1** inspection using methods and procedures and practices conforming to Florida Statute (FS) 553.899 (effective May 26, 2022) and local requirements of the AHJ.

UES warrants that the findings contained in this report have been formulated within a reasonable degree of engineering certainty. These opinions were based on a review of the available information, associated research, onsite observations, as well as our education, knowledge, training and experience. UES reserves the right to revise or update any of the assessments and/or opinions within this report as conditions change or additional information becomes available. UES's design professionals performed these professional services in accordance with the standard of care used by similar professionals in the community under similar circumstances.

The methodologies include reviewing information provided by other sources. UES treats information obtained from the document reviews and interviews concerning the property as reliable, note UES is not required to independently verify the information as provided. Therefore, UES cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete.

No other warranties are expressed or implied.

### 5.0 REFERENCE DOCUMENTS

The following documents, reports and technical references were used for this project.

### 5.1 MUNICIPAL INFORMATION

1. Ormond Beach, Florida Property Appraiser's Site Information

### 5.2 REPORTS BY OTHERS

- 1. CRA South Garage Beam, Progress report no. 1, dated March 31, 2022
- CRA Structural Inspection report no. 1, dates April 2, 2022
- CRA Structural Inspection Report no. 2, dated April 13, 2022
- 4. CRA South Garage Beam, Progress report no. 2, dated April, 15, 2022
- 5. CRA Structural Inspection report no. 3, dated May 3, 2022

### 6.0 SUMMARY OF FINDINGS

Based on the PHASE 1 Milestone inspection, no indications of substantial structural deterioration were observed that would negatively affect the residential building's general structural condition and integrity.

However, within the one story parking garage, many areas of the supporting beams were observed to have structural distress that included surface imperfections such as cracks, exposed reinforced steel with some surficial corrosion, significant spalling, and continual flowing water from the above courtyard area, some areas have been previously repaired per Mr. Charles Adams,PE's, specifications. As referenced above in section 5.2 and our discussion with you, CRA and Associates is currently providing inspections and repair specifications for the aforementioned distress of the support beams within the parking garage. Universal Engineering and Sciences recommends Mr. Adams be retained to continue oversight for the parking garage.

These areas are summarized in APPENDIX A.

### 7.0 RECOMMENDATIONS

A PHASE 2 INSPECTION IS:

☐ RECOMMENDED

☐ NOT RECOMMENDED

### 8.0 RELIANCE

This report has been prepared for the referenced party and their representatives, and it is intended for their use only. This report was prepared pursuant to the contract between Universal Engineering Sciences (UES) and, (the "Client"). That contractual relationship included an exchange of information about the property that was unique and between UES and its client and serves as part of the basis upon which this report was prepared. Because of the importance of the communication between UES and the Client, reliance on any use of this report by anyone other than the Client, is prohibited and therefore not foreseeable to UES.

<sup>\*</sup>Continue inspection and repair program requirements within the parking garage, per Mr. Charles R. Adams, P.E.

**APPENDIX A** 

PHASE 1 STRUCTURAL INSPECTION REPORT



### Phase I Structural -Milestone Inspection Worksheet

CASE REFERENCE NUMBER:	LICENSEE NAME: Brian Pohl, P.E.
N/A	TITLE: Daytona Branch Manager
JURISDICTION NAME:	ADDRESS: 911 Beville Rd Ste 3  South Daytona, FL 32119
Ormond Beach	SIGNATURE:
Use separate sheets for additional responses  1. DESCRIPTION OF BUILDING	by referencing the report number.
a. Name on Title: Ormond Heritage	
b. Building Street Address: 1 John Anderson Drive, Ormo	nd Beach, FL 32176 Bldg. #: All 3
c. Legal Description: THE ORMOND HERITAGE CONDOMINIUM PPER OR 7019 PG 1814 PER OR 7069 PG 3570 PER	ER OR 4045 PG 4588 PER OR 4598 PG 2732 PER OR 4648 PG 1601 PER OR 5557 PG 3239  Attached:
d. Owner's Name: Ormond Heritage	
e. Owner's Mailing Address: 1 John Anderson Drive, Or	mond Beach, FL 32176
f. Folio Number of Property on which Building is	Located:
g. Building Code Occupancy Classification: R-2	
h. Present Use: R-2 structure, Occupants are primarily permanen	t in nature.
i. General Description of building (overall descri	ption, structural systems, special features): 3 Separate 9 story concrete structures
156 Units. Constructed in 1995,	
j. Number of Stories: 9 k. Is	this a Threshold Building as per 553.71(12) F.S. (Yes/No): YES
I. Provide an aerial of the property identifying th	e building being certified on a separate sheet. Attached:
m. Additional Comments:	

n. Additions to original structure: None
o. Total Actual Building Area of all floors:  488,817 S.F.
2. INSPECTIONS
a. Date of Notice of Required Inspection:
b. Date(s) of actual inspection: 9/1/2022, 9/2/2022, 9/6/2022, 9/20/2022
c. Name. license number, discipline of practice, and qualifications of licensee submitting report:
Brian Pohl, PE- Structural and Geotechnical, Florida PE 60216
d. Description of laboratory or other formal testing, if required, rather than manual or visual procedures:
N/A
e. Are Any Structural Repairs Required? (YES/NO):  No; the condominium structure is in good condition, The garage is under repair and being directed by a designated structural engineer, Mr. Charles Adams, PE,
1. If required, describe, and indicate acceptance:
f. Can the building continue to be occupied while recertification and repairs are ongoing? (YES/NO):
1. Explanation/Conditions: The building can be safely occupied while the garege work is being performed under the responsible engineer of record, Mr. Charles Adams, PE.
g. Is it recommended that the building be vacated? (YES/NO): NO
h. Has the property record been researched for violations or unsafe cases? (YES/NO): Yes
1. Explanation/Comments:

3. SUPPORTING DATA		
a Additional sheets of written data		
b. Photographs provided (where required plus each building elevation)		
c Drawings or sketches (aerial, site, footprint, etc.)		
d Test reports		
4. FOUNDATION		
a. Describe the building foundation: Slab on Grade		
b. Is wood in contact or near soil? (Yes/No):		
c. Signs of differential settlement? (Yes/No): NO		
d. Describe any cracks or separation in the walls, columns, or beams that signal differential settlement:		
Parking garage (Photos 64-77)		
e. Is water drained away from the foundation? (Yes/No):  YES		
f. Is there additional sub-soil investigation required? (Yes/No): NO		
1. Describe:		
5. PRESENT CONDITION OF OVERALL STRUCTURE		
a. General alignment: (Note: good, fair, poor, explain if significant)  PROVIDE PHOTO		
1. Bulging: Good		
2. Settlement: Good		
3. Deflections: Good		
4. Expansion: Good		
5. Contraction: Good		

b. Portion showing distress: (Note, beams, columns, structural walls, floor, roofs, other)	PROVIDE PHOTO
Portions of the property showing distress is in the parking garage, see photos 12-39, 64-77	
<ul> <li>c. Surface conditions: Describe general conditions of finishes, cracking, spalling, peeling, signs of moisture penetration and stains.</li> </ul>	PROVIDE PHOTO
Portions of the property showing distress is in the parking garage, see photos 12-39, 64-77	
d Condensity to the condensity of	
d. Cracks: Note location in significant members. Identify crack size as HAIRLINE if barely discernible; FINE if less than 1 mm in width; MEDIUM if between 1- and 2-mm width; WIDE if over 2 mm.	PROVIDE PHOTO
Hairline Photo 23, 24, 28, 33, 34, 35, 36	
Fine Photo 12, 13, 14, 15, 16, 17, 18, 21, 22, 39, 71, 70, 69, 68, 67, 66, 65, 64	
Medium Photo 19, 20, 25, 26, 27, 29, 30, 31, 32, 37, 38, 77, 76, 74, 73, and 72	
e. General extent of deterioration: Cracking or spalling of concrete or masonry, oxidation of metals; rot or borer attack in wood.	PROVIDE PHOTO
N/A	
f. Previous patching or repairs (Provide description and identify location):	PROVIDE PHOTO
As indicated on photos 12, 15, 16, 20, 21, 22, 26, 35, 36, 37, 38, 65, 66, 67, 68, 69, 70, 71, 72, 73, 76, 77	TROVIDETROTO
g. Nature of present loading: (Indicate residential, commercial, storage, other - estimate magnitude fo	b I D
Eight (8) Residential levels above parking garage.	r each level)
h. Signs of overloading? (Yes/No): No	
1. Describe:	

6. MASONRY BEARING WALL: (Indicate good, fair, poor on appropriate lines)	PROVIDE PHOTO
a. Concrete masonry units: N/A	
b. Clay tile or terra cota units: Concrete tiles to appear to be terra cotta style	
c. Reinforced concrete tie columns: Good	
d. Reinforced concrete tie beams: Good	
e. Lintel: Good	
f. Other type bond beams: N/A	PROVIDE PHOTO
g. Exterior masonry finishes (choose those that apply):	
1. Stucco: STO exterior wall system finish installed.	
2. Veneer:	
3. Paint only:	
4. Other (describe):	
h. Interior masonry finishes (choose those that apply):	PROVIDE PHOTO
1. Vapor barrier:	
2. Furring and plaster: Typical interior finishes to the dwelling units	
3. Paneling:	
4. Paint only:	
5. Other (describe):	
i. Cracks:	PROVIDE PHOTO
1. Location (note beams, columns, other):	
2. Description:	
j. Spalling	PROVIDE PHOTO
1. Location (note beams, columns, other): Noted in the garage being handled by Mr. Charles Adams, PE. as discussed in item 5, above	
2. Description:	

k. Rebar corrosion (indicate on lines 1-4); Only noted in the parking garage as discussed in Paragraph 5, and being repaired under the direction of Mr. Adams	PROVIDE PHOTO
1. None visible:	
2. Minor (patching will suffice):	
3. Significant (but patching will suffice):	
4. Significant (structural repairs required)	
I. Samples chipped out for examination in spalled areas (Yes/No):	
Yes – describe color, texture, aggregate, general quality:	
7. FLOOR AND ROOF SYSTEM	
a. Roof (Must provide)	
Describe (roof shape, type roof covering, type roof deck, framing system, condition):	PROVIDE PHOTO
Flat roof system - 2 inches of lightweight concrete with single ply membrane. Evidence of ponding as visualized in photos provided, Photo 78, 79, 80, 81, 82, 87, 88, 89	9, 90, 91, 92, 93, 94, 101, and 102
Ballroom roof assembly shows no sign of weakness. Minimal moisture accumulation under final roof covering. No obvious cracks, splits, or seam separation in	n roof covering.
2. Note water tanks, cooling towers, air conditioning equipment, signs, other heavy equipment and condition of supports:	PROVIDE PHOTO
A/C equipment is located on the roof, supported by a rack system and these supports appear to be in good condition. Photo 78, 79, 88, 101, and 102,	
	_
3. Describe roof drainage system, main and overflow, and indicate condition:	PROVIDE PHOTO
Interior roof drains - Overflow relief scuppers Photo 88, 81, 82, 80, 79, 78	
	**
4. Describe parapet build and current conditions:	PROVIDE PHOTO
Metal Framing covered with painted metal with roof material flashed 6" above roof - Good	
Photo 80, 81, 82, 87, 89, 92, and 93	
E. Deserbe recognitive deserved by the control of the	
5. Describe mansard build and current conditions:	PROVIDE PHOTO
Concrete tile in good condition, Photo 89	

6. Describe roofing membrane/covering and current conditions:	PROVIDE PHOTO
Modified Bitumen with Dex-O-Tex waterproofing with ponding present and indicated int the photos provided, Photo 78, 79, 80, 81, 82, 87, 88, 89, 90, 91, 92, 93, 94, 101, 2	ind 102
<ol><li>Describe any roof framing member with obvious overloading, overstress, deteriorat or excessive deflection:</li></ol>	PROVIDE PHOTO
N/A	
8. Note any expansion joints and condition:	PROVIDE PHOTO
N/A	
b. Floor system(s):	
<ol> <li>Describe the floor system at each level, framing, material, typical spans and indicate condition:</li> </ol>	PROVIDE PHOTO
Cast in place Reinforced concrete slabs - Good condition, Photo 7, 8 and 9	
Balconies: Indicate location, framing system, material, and condition:	
2. Succines: Maleute location, Halling system, Material, and Condition.	PROVIDE PHOTO
Exterior Reinforced Concrete balconies - Good	
Photo 1, 2, 3, 4, 5, 6, 10, 11, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 95, 96, 97, 98, 99, and 100	
3. Stairs and escalators: indicate location, framing system, material, and condition:	PROVIDE PHOTO
Interior reinforced concrete stairs - Good	
Ramps: indicate location, framing type, material, and condition:	PROVIDE PHOTO
	PROVIDE PHOTO
N/Λ	
5. Guardrails: describe type, material, and condition:	PROVIDE PHOTO
Brushed aluminum guardrails - Good	•
Photo 1, 2, 3, 4, 5, 6, 10, 11, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 95, 96, 97, 98, 99, and 100	
c. Inspection – note exposed areas available for inspection, and where it was found necessal inspection of typical framing members.	ary to open ceilings, etc. for
Unfinished unit Photo 7, 8 and 9	

Medium Photo 19, 20, 25, 26, 27, 29, 30, 31, 32, 37, 38, 77, 76, 74, 73, 72

c. General condition General condition is fair in the garage, and good in the residential building.	
d. Rebar corrosion – check appropriate line	
1. None visible: X	
2. Location and description of members affected and type cracking:	PROVIDE PHOTO
3. Significant but patching will suffice:	PROVIDE PHOTO
4. Significant: structural repairs required (describe):	PROVIDE PHOTO
e. Samples chipped out in spall areas:	
1. No: x	PROVIDE PHOTO
2. Yes, describe color, texture, aggregate, general quality:	
f. Identify any concrete framing member with obvious overloading, overstress, deterioration, or excessive deflection:  N/A	PROVIDE PHOTO
10 WINDOWS STODEEDONTS CUIDTAINWALLS AND EVTERIOR COORS	
a. Windows/Storefronts/Curtainwalls	PROVIDE BUOTO
Type (Wood, steel, aluminum, vinyl, jalousie, single hung, double hung, casement, awning,	PROVIDE PHOTO
pivoted, fixed, other):	
Aluminum, Double Hung	
2. Anchorage: type and condition of fasteners and latches:	
Fasteners and latches are in Good conditions.	

3.	Sealant: type and condition of perimeter sealant and at mullions:
	Silicone scalant
4.	Interiors seals: type and condition at operable vents:
Ru	ibber and foam seals are in Good condition
5.	General condition:
	General condition is good.
6.	Describe any repairs needed: N/A
b. S	tructural Glazing on the exterior envelope of Threshold Buildings (Yes/No): Yes
1.	Previous Inspection Date:
2.	Description of Curtain Wall Structural Glazing and adhesive sealant:
Cu	rtain wall structural glazing is Good
3.	Describe Condition of System:
c. E	xterior Doors PROVIDE PHOTO
1.	Type (Wood, Steel, Aluminum, Sliding Glass Door, other):
Exterio	or doors are Steel.
1	
2.	Anchorage: type and condition of fasteners and latches:
Fast	eners and latches are in good conditions.
3.	Sealant: type and condition of sealant:
Silio	cone sealant is in good condition;

4. General condition:	
General condition of doors are structurally sound	
5. Describe any repairs needed:	
11. WOOD FRAMING	
a. Fully describe wood framing system:	PROVIDE PHOTO
N/A	
b. Indicate the condition of the following:	PROVIDE PHOTO
1. Walls:	
N/A	
2. Floors:	
N/A	
3. Roof member, roof trusses:	
N/A	
a Note metal connectors (i.e., angles, plates, holts, split nightles, ather, and gate acadition).	PROVIDE BLICTO
c. Note metal connectors (i.e., angles, plates, bolts, split pintles, other, and note condition):	PROVIDE PHOTO
N/A	
d. Joints: note if well fitted and still closed:	PROVIDE PHOTO
	TROVIDETTIOTO
N/A	

e. Drainage: note accumulations of moisture	PROVIDE PHOTO
N/A	
f. Ventilation: note any concealed spaces not ventilated:	PROVIDE PHOTO
N/A	
g. Note any concealed spaces opened for inspection:	PROVIDE PHOTO
N/A	
h. Identify any wood framing member with obvious overloading, overstress, deterioration, or excessing deflection):	PROVIDE PHOTO
N/A	
12. BUILDING FAÇADE INSPECTION (Threshold Buildings)	PROVIDE PHOTO
a. Identify and describe the exterior walls and appurtenances on all sides of the building. (Cladding ty appliques, etc.)	
Metal studs at 16" on center, Masonry Block 8" x 8" x 16", Synthetic stucco finish - Last painted in July 2020,	
Photo 83-86	
b. Identify the attachment type of each appurtenance type (mechanically attached or adhered):	
Fastener type was unable to be determined.	
a Indicate the condition of each approximate and distance at the condition in the last and the condition of each approximate and the condition of	
c. Indicate the condition of each appurtenance (distress, settlement, splitting, bulging, cracking, loose anchors and supports, water entry, movement of lintel or shelf angles, or other defects):	ning of metal
	ening of metal
anchors and supports, water entry, movement of lintel or shelf angles, or other defects):	ning of metal

13. SPECIAL OR UNUSUAL FEATURES IN THE BUILDING	PROVIDE PHOTO	
a. Identify and describe any special or unusual feature (i.e. cable suspended structures, tensile fabric roof, large sculptures, chimneys, porte-cochere, retaining walls, seawalls, etc.)		
North Tower and South Tower retaining walls (Photos 84, 85, and 86)		
b. Indicate condition of the special feature, its supports, and connections:		
North Tower and South Tower retaining walls at FDCs split, cracked, and spalling as indicated in photos provided. Further investigation and repair is recommended		

**APPENDIX B** 

**SITE PHOTOGRAPHS** 

### Ormond Heritage Condominium

Milestone Inspections

### Parking Garage

- Foundation Cracks/Separation
- North Tower, Section IA Beam



Photo 64



- Foundation Cracks/Separation
- North Tower, Section LH IA Beam



Photo 66



Photo 67

- Foundation Cracks/Separation
- North Tower, Section JC Beam



Photo 68



Photo 70

Photo 69



Photo 71



Photo 72

- Foundation Cracks/Separation
- North Tower, Section RL



hoto 73

- Foundation Cracks/Separation
- North Tower, Storage 2



Photo 74

- Foundation Cracks/Separation
- North Tower, East Entrance, Water Intrusion, Section SG



- Foundation Cracks/Separation
- North Tower, East Entrance



Photo 76



Photo 77

# Present Condition of Overall Structure

- Portion showing Distress/Surface Conditions in the Parking Garage
- East Tower, Section UZ Beam



Photo 12



- Portion showing Distress/Surface Conditions in the Parking Garage
- East Tower, Section KO Beam



hoto 14

- Portion showing Distress/Surface Conditions in the Parking Garage
- East Tower, Section XM Beam



Photo 15

- Portion showing Distress/Surface Conditions in the Parking Garage
- East Tower, Section AP Beam



- Portion showing Distress/Surface Conditions in the Parking Garage
- East Tower, Section XP Beam



- Portion showing Distress/Surface Conditions in the Parking Garage
- East Tower, Section IF Beam



- Portion showing Distress/Surface Conditions in the Parking Garage
- East Tower, Section GY Beam



- Portion showing Distress/Surface Conditions in the Parking Garage
- East Tower, Corner Section ON FC Beam







Photo 22

- Portion showing Distress/Surface Conditions in the Parking Garage
- South Tower, Section WW Beam





- Portion showing Distress/Surface Conditions in the Parking Garage
- South Tower, Section GL Beam









- Portion showing Distress/Surface Conditions in the Parking Garage
- South Tower, Section MO Beam



hoto 28



noto 29

- Portion showing Distress/Surface Conditions in the Parking Garage
- South Tower, Storage 8



- Portion showing Distress/Surface Conditions in the Parking Garage
- South Tower



Photo 31



hoto 32

- Portion showing Distress/Surface Conditions in the Parking Garage
- South Tower, Section WX Beam



Photo 33

- Portion showing Distress/Surface Conditions in the Parking Garage
- South Tower, Carwash Beam







oto 35



noto 36

- Portion showing Distress/Surface Conditions in the Parking Garage
- South Tower, Carwash Beam continued...



Photo 38

Photo 37



Photo 39

- Portion showing Distress/Surface Conditions in the Parking Garage
- Photos 64-77 Shown in previous slides (2-8)

### Present Condition of Overall Structure (Cracks)

- Portion showing Hairline Cracks in the Parking Garage
- Photos 23-24, 28, and 33-36 Shown in previous slides (17, 19, and 22-23)

- Portion showing Fine Cracks in the Parking Garage
- Photos 12-18, 21-22, and 39 Shown on previous slides (9-14, 16, and 24)

- Portion showing Fine Cracks in the Parking Garage
- Photos 64-71 Shown in previous slides (2-4)

- Portion showing Medium Cracks in the Parking Garage
- East Tower, Section GY



Photo 19

- Portion showing Medium Cracks in the Parking Garage
- East Tower, Corner Section ON-FC



Photo 20

- Portion showing Medium Cracks in the Parking Garage
- South Tower, Section GL Beam







Photo 27

Photo 26

Photo 25

- Portion showing Medium Cracks in the Parking Garage
- South Tower, Section MO



Photo 29

- Portion showing Medium Cracks in the Parking Garage
- South Tower, Storage 8



Photo 30

- Portion showing Medium Cracks in the Parking Garage
- South Tower





- Portion showing Medium Cracks in the Parking Garage
- South Tower, Car Wash Beam



Photo 37



Shoto 38

- Portion showing Medium Cracks in the Parking Garage
- Photos 72-77 Shown in Previous Slides (4-6 and 8)

### Present Condition of Overall Structure (Patching and Repairs)

- Previous Patches or Repairs to Structure
- Photos 12, 15-16, 20-22, 26, and 35-38 Shown in previous slides (9, 11-12, 16, 18, 23, and 24)
- Photos 65-77 Shown in previous slides (2-8)

### Floor and Roof System

- Describe Roof Type
- North Tower Evidence of Ponding



Photo 79

Photo 78



Photo 80



Describe Roof Type

1. Flat Roof

• North Tower – Evidence of Ponding continued...



Photo 81



Photo 82

- Describe Roof Type
- 1. Flat Roof
- East Tower Evidence of Ponding





Photo 87



Photo 89

Describe Roof Type

1. Flat Roof

East Tower – Evidence of Ponding continued...



Photo 90

Describe Roof Type

1. Flat Roof

South Tower – Evidence of Ponding



Photo 91



Photo 92

- Describe Roof Type
- 1. Flat Roof
- South Tower Evidence of Ponding continued...



Photo 93



Photo 94

Describe Roof Type

1. Flat Roof

South Tower – Evidence of Ponding continued...



Photo 101



Photo 102

- A/C Equipment located on Roof
- Photos 78-79, 88, and 101-102 Shown in previous slides (48, 50, and 54)

- Interior Drains Overflow Relief Scuppers
- Photos 78-82 and 88 Shown in previous slides (48-50)

- Metal Framing Good
- Photos 80-82, 87, 89, and 92-93 Shown in previous slides (48-50 and 52-53)

- Concrete Tile Good
- Photo 89 Shown in previous slide (50)

- Modified Bitumen with Dex-O-Tex Waterproofing Ponding Present
- Photos 78-82, 87-94, and 101-102 Shown in previous slides (48-54)

#### Floor System

- Reinforced Concrete Slabs Good
- Phase 2 Open Framing, Ext. Plane



Photo 7



Photo 8



Photo 9

#### Floor System

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 3

Photo 2

Photo 1

- Reinforced Concrete Balconies Good
- Balcony, Unit 711







Photo 6

Photo 5

Photo 4

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 10



Photo 11

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 40



Photo 41

- Reinforced Concrete Balconies Good
- Balcony, South Tower Unit 601/2



Photo 43



Photo 44

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 45

- Reinforced Concrete Balconies Good
- Balcony, South Tower Unit 704/2



Photo 46



Photo 47

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 48

- Reinforced Concrete Balconies Good
- Balcony, South Tower Phase 4/1, 4/2, and 4/3



Photo 50



Photo 51

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 52

- Reinforced Concrete Balconies Good
- Balcony, South Tower Unit 204/2



Photo 53



Photo 54

- Reinforced Concrete Balconies Good
- Balcony, South Tower Unit 204/2 continued...



Photo 55

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 56

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location) continued....



Photo 57



Photo 58

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location) continued....



Photo 59



Photo 60

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location) continued....

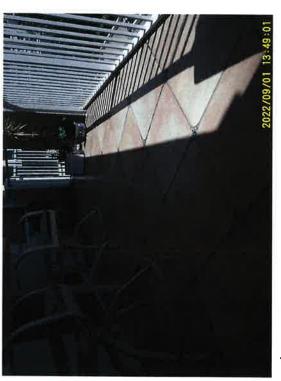


Photo 61



Photo 62

- Reinforced Concrete Balconies Good
- Balcony, North Tower Phase 6/1



Photo 63

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 95



Photo 96

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



Photo 97

- Reinforced Concrete Balconies Good
- Balcony, Unit 713/1



Photo 98

- Reinforced Concrete Balconies Good
- Balcony (Misc. Location)



- Reinforced Concrete Balconies Good
- Balcony, Unit 510



- Brushed Aluminum Guard Rails Good
- Photos 1-6, 10-11, 40-63, and 95-100 Shown in previous slides (61-63, 64-77, and 78-82)

#### Inspection

- Unfinished Unit
- Photos 7-9 Shown in previous slides (60)

### Concrete Framing System

- Columns and Beams
- Photos 12-39 Shown on previous slides 9-14, 39-40, 16-17, 41, 19, 42-44, 22-23, 45, and 24)
- Photos 64-77 Shown on previous slides (2-8)

## Concrete Framing System continued...

- Portion showing Hairline Cracks in the Parking Garage
- Photos 23-24, 28, and 33-36 Shown in previous slides (17, 19, and 22-23)

## Concrete Framing System continued...

- Portion showing Fine Cracks in the Parking Garage
- Photos 12-18, 21-22, 39, and 64-71 Shown in previous slides (9-14, 16, 24, and 2-4)

## Concrete Framing System continued...

- Portion showing Medium Cracks in the Parking Garage
- Photos 19-20, 25-27, 29-32, 37-38, 72-74, and 76-77 Shown in previous slides (39-40, 41, 42-44, 45, 4-6, and 8)

## Building Façade Inspection

• Metal studs on center, masonry block, and synthetic stucco finish on ext. walls

Center Wall



Photo 83

# Building Façade Inspection continued...

- Metal studs on center, masonry block, and synthetic stucco finish on ext. walls continued..
- North Tower wall



Photo 84

# Building Façade Inspection continued...

- Metal studs on center, masonry block, and synthetic stucco finish on ext. walls continued..
- South Tower wall



Photo 85



Photo 86

# Building Façade Inspection continued...

- North Tower and South Tower retaining walls
- Photos 84-86 Shown in previous slides (80-81)

**End of PowerPoint** 

**APPENDIX C** 

**QUALIFICATIONS OF KEY PERSONNEL** 



#### **BRIAN POHL, PE**

#### **Branch Manager**

Brian Pohl coordinates with the Universal Building Inspections Department, overseeing multiple private provider inspections and municipal support projects. He also directs geotechnical explorations and testing and inspection services for buildings, bridges, residential, and industrial facilities and small to large roadways. He has experience in shallow and deep foundation and testing services analysis, including spread footing and pile foundations. Brian has conducted geotechnical studies for roadway, airport and bridge projects, and land development.

#### **Brian's Project Experience Includes:**

**Daytona International Speedway, Volusia County, Florida** – Brian worked with Universal's Daytona Beach Building Inspection Department to coordinate the inspection services and inspection team.

I-95 and I-4 Interchange, Volusia County, Florida — Brian managed the Geotechnical and QC Services for this roadway project at the intersection of I-95 and I-4. Universal was awarded the geotechnical and field Quality Control (QC) services for the I-95 Widening and Systems Interchange Reconstruction Design-Build form North of SR44 to North of US 92. Geotechnical services began immediately subsequent to award and QC field testing services. Brian served as the project manager.

**Port Orange Riverwalk, Port Orange, Florida** – Brian managed the geotechnical, testing and inspection services for this proposed development in Port Orange which included a restaurant, condominium, marina with a riverboat, and various other parcels. Brian served as the project manager.

World Class Distribution Center (Trader Joe's), Volusia County, Florida — Universal provided Geotechnical Engineering and Construction Materials Testing services. Universal was responsible to provide in place density testing (min three per trip), 4" x 8" concrete compressive strength test cylinders (four per set), additional test cylinders for early breaks for tilt panel construction, Certified Welding Inspector to perform inspections on structural steel (bolt torque and welded connections), limerock bearing ratio test with soil modified proctor test, asphalt extraction and gradation testing, report reviews and consultations with Contractor, FF/FL testing and steel inspections. Brian served as the project manager.

#### Education

BS in Civil Engineering, University of Central Florida (1998)

#### Licenses

Professional Engineer, FL

#### **Years of Experience**

19

#### Years with Universal

15



**Clyde Morris Boulevard Widening Project, Daytona Beach, Florida** – Brian managed the Geotechnical services on this very large project which went on for over a year for the widening of the local roadway. Brian served as the project manager.

**Tanger Retail Outlet Mall – I-95 & LPGA, Volusia County, Florida** – Universal completed Geotechnical Engineering and testing services for the project above referenced. Universal performed several welding inspections as well as structural steel inspections for the Tanger Outlet Mall. All areas of inspections were found to be in compliance with approved project plans, specifications and AWS structural welding code requirements. Brian served as the project manager.

**SR 415 Pedestrian Bridge, Volusia County, Florida** – Brian managed the Geotechnical and QC services for this project which consisted of a pedestrian bridge to be constructed over SR 415 in Osteen, Florida. The bridge has an approximate 100 foot span. Universal provided geotechnical recommendations for bridge foundations and related construction was provided. Brian served as the project manager.

**SR 442 Pedestrian Bridge, Volusia County, Florida** – Universal provided Geotechnical Exploration services for the construction of a pedestrian bridge constructed over SR. 442 in Edgewater, Florida. The purpose of the exploration was to investigate the general subsurface conditions at the site, interpret and review the subsurface conditions with respect to the proposed construction, and provides geotechnical engineering recommendations for bridge foundations and related construction issues. A report containing the results of our exploration, an engineering interpretation of these with respect to the project characteristics described to our team and recommendations for design and installation of the foundation for the proposed pedestrian bridge was created and given to the client. Brian served as the project manager.

#### **Publications**

Case Study of a Major Roadway Corridor over Soft Marsh Soils, ASCE 2000 Annual Meeting

**APPENDIX D** 

**GENERAL TERMS AND CONDITIONS**