JBCI Project No. 226418

The Devon Condominium

Prepared for

Investment Property Services

Services

Overall Building Structural Assessment

Location

2401 Pennsylvania Avenue
Wilmington, Delaware 19806

Date

March 7, 2022

OVERALL BUILDING STRUCTURAL ASSESSMENT
THE DEVON CONDOMINIUM
2401 PENNSYLVANIA AVENUE
WILMINGTON, DELAWARE 19806

INTRODUCTION

In accordance with our Agreement dated January 6th, 2022, we are submitting our Overall Building Structural Assessment Report for The Devon Condominium. Our survey and our report are in response to building management concerns following the June 24, 2021 Champlain Towers South building collapse in Surfside, Florida. On January 19th, 2022, Robert Garneau, EIT and Mike Salera, PE from Joseph B. Callaghan, Inc. (JBCI) conducted a visual condition survey of the main, accessible structural components to assess the overall structural condition. For this assessment, we did not intend to document all localized distress and/or maintenance conditions. Our focus was the overall building structural integrity.

It is also very important to understand that we cannot observe or comment on any subsurface foundation conditions. No original or structural drawings were available to assist our survey and evaluation. Our objective was to identify any visible building distress or movement that MAY suggest potential subsurface concerns or unsafe conditions. Subsequently, we cannot opine on future sinkhole potential. No interior finishes were removed for the assessment.

NOTE: CONCLUSIONS REACHED IN THIS REPORT ARE BASED ON OUR VISUAL SURVEYS. WHILE WE ENDEAVORED TO DOCUMENT ALL ITEMS OF CONCERN AND DISTRESS BY APPLYING OUR ENGINEERING EXPERIENCE, PRUDENT JUDGMENT AND REASONABLE CARE, IT MUST BE UNDERSTOOD THAT HIDDEN CONDITIONS AND/OR UNAVAILABLE DOCUMENTS MAY EXIST WHICH MAY IMPACT OUR REPORT.

THIS DOCUMENT IS ONLY A CONDITION REPORT AND MUST NOT BE USED AS A CONTRACT DOCUMENT FOR REPAIRS. PLANS AND SPECIFICATIONS MUST BE FILED WITH THE GOVERNING TOWNSHIP TO OBTAIN ANY AND ALL REQUIRED BUILDING PERMITS.

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BUILDING CHARACTERISTICS

Name:	The Devon Condominium
Address:	2401 Pennsylvania Avenue Wilmington, Delaware 19806
Owner:	Investment Property Services
Owner's Representative:	Dino Peronti
Principal Occupancy:	Residential
Year Constructed:	1963
Number of Stories/Height:	15 / ~150
Main Structural Framing:	Reinforced concrete
Exterior Construction:	Exposed concrete framing with brick infill
Number of Stair Towers:	4
Parking Garage: Y/N	Y
Pool: Y/N	Y
Balconies: Available	Y
Structural Drawings: Y/N	N
Foundation Drawings: Y/N	N (foundation system unknown)

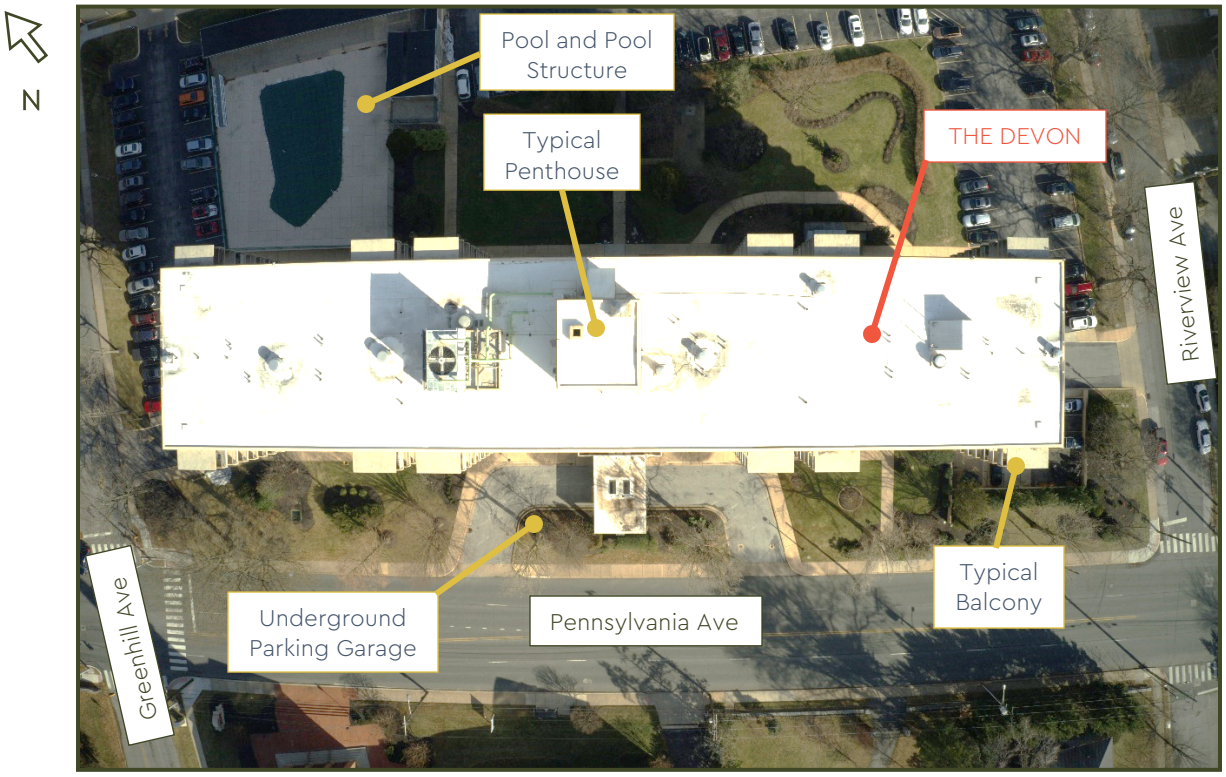

Figure 1 – Aerial View

SUMMARY OF FINDINGS

The Devon Condominium is a fifteen-story, rectangular shaped building. The building footprint is roughly 300 ft by 60 ft. Our structural building assessment consisted of a visual condition survey of the following areas:

1) Interior mechanical rooms and basement
2) Underground parking garage
3) Primary interior stairwells
4) Rooftop structures
5) Building facade and balconies
6) Pool structure

Our visual observations can be summarized as follows:

Interior Mechanical Rooms and Basement:

All interior mechanical rooms are generally located on the ground floor and in the basement. The mechanical rooms are comprised of exposed reinforced concrete framing and reinforced concrete foundation walls. The exposed mechanical spaces were in generally **good** condition. Our observations can be summarized below:

- Isolated concrete spalling at roof penetrations (See Photo 1).
- Isolated vertical cracking within CMU partition walls (See Photo 2).

Photo No. 1 – Concrete spalling and exposed reinforcing at roof penetrations

Photo No. 2 – Vertical cracking within CMU partition wall

Underground Parking Garage:

The underground parking garage is located to the south of the building, under the main driveway entrance. The garage can be accessed via rollup doors at the east end. The garage framing consists of cast in place reinforced concrete beams and slab with concrete columns. The roof of the garage supports the plaza above. The floor is slab on grade. The parking garage framing was in overall **marginal** condition. Our observations can be summarized below:

- Localized concrete spalling at reinforced beams and slab (See Photo 3).
- Localized exposed and corroding reinforcing (See Photo 3).
- Localized cracking and water staining at concrete slab underside (See Photo 4).
- Isolated water infiltration at perimeter wall (See Photo 5).
- Localized map and hairline cracking in concrete slab on grade (See Photo 6).

Photo No. 3 – Concrete spalling and exposed reinforcing in concrete beam; water staining

Photo No. 4 – Concrete spalling and water staining at parking garage ceiling

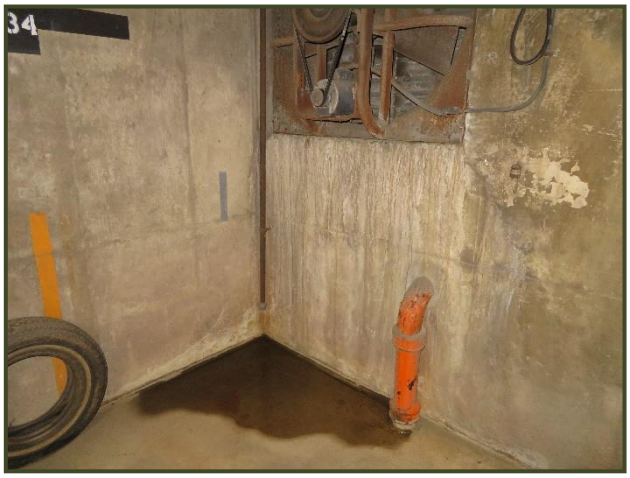

Photo No. 5 – Water infiltration and pooling at exterior perimeter wall of garage

Photo No. 6 – Map cracking in concrete slab on grade

Interior Stairwells:

The exposed framing in the interior stair towers is in generally **fair to good** condition. The stair tower framing consists of reinforced concrete beams and CMU walls. The stairs and landings are comprised of reinforced concrete. Our observations can be summarized below:

- Localized cracking and incipient spalling within reinforced concrete framing (See Photos 7 and 8).
- Localized water infiltration and peeling coatings at interior walls of stairwell (See Photo 8).
- Isolated cracking within CMU at pipe penetrations (See Photo 9).

Photo No. 7 – Open cracking within concrete framing at top landing

Photo No. 8 – Cracking, incipient spalling, and water staining at concrete framing

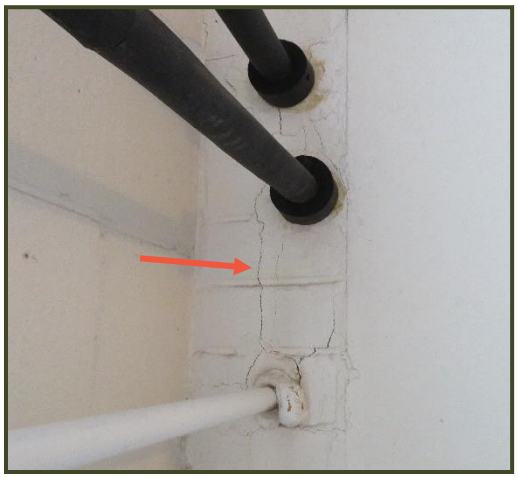

Photo No. 9 – Isolated cracking at CMU at pipe penetrations

Roof and Rooftop Structures:

The rooftop penthouses are in overall **good** condition. The penthouse structures consist of a reinforced concrete framing with CMU infill walls and brick veneer. There is mechanical equipment on the roof on seated metal dunnage or concrete pads. Our observations can be summarized as follows:

- Localized cracking on elevated concrete equipment pad (See Photo 10).
- Localized failing previous patches on concrete equipment pad (See Photo 11).
- Localized brick cracking within penthouse exterior wall (See Photo 12).
- Isolated concrete cracking within underside of penthouse roof (See Photo 13).
- Localized water ponding on the roof surface (See Photo 14).

Photo No. 10 – Cracking on concrete equipment pad

Photo No. 11 – Failing previous patches on concrete equipment pad

Photo No. 12 – Brick step cracking at exterior penthouse wall

Photo No. 13 – Cracking at underside of penthouse roof

Photo No. 14 – Ponding on main roof surface

Main Façade:

The exterior façade was in overall **fair** condition with isolated areas of distress. The façade is constructed of exposed concrete framing and brick veneer infill. We utilized binocular and aerial drones to observe the façade. Our visual observations are summarized as follows:

- Isolated cracks and efflorescence on concrete roof framing (See Photo 15).
- Localized incipient spalling on concrete spandrel beams (See Photo 16).
- Localized cracking on concrete framing (See Photo 17).

Photo No. 15 – Cracks and efflorescence on concrete roof framing

Photo No. 16 – Incipient spalling and corroding reinforcing at concrete framing

Photo No. 17 – Cracking and efflorescence at concrete framing

Exterior Balconies and Egress:

The exterior concrete structures include balconies, carport, and a north elevation stair. These exterior structures are in overall **fair to good** condition. Our visual observations are summarized as follows:

- Localized cracking and incipient spalling on concrete balcony slabs (See Photo 18).
- Localized incipient spalling on concrete balcony front wall (See Photo 19).
- Localized concrete underside spalling and peeling coating (See Photo 20).
- Isolated deterioration of exterior staircase (See Photo 21).
- Incipient spalling and cracking at ceiling of concrete entrance canopy (See Photos 22 and 23).

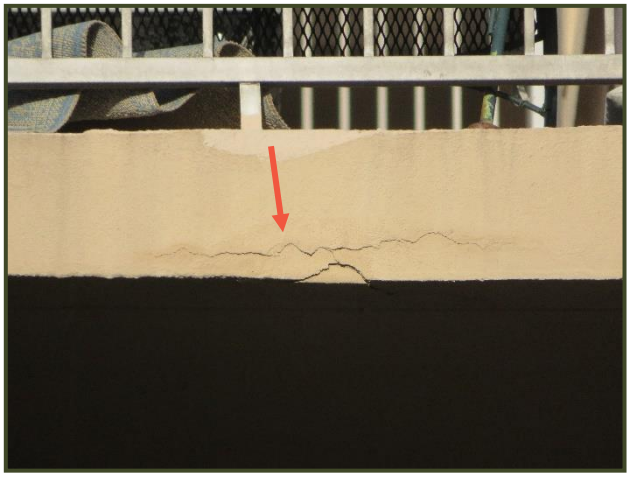

Photo No. 18 – Cracking at concrete balcony slab edge

Photo No. 19 – Incipient spalling in concrete balcony wall

Photo No. 20 – Incipient spalling and peeling coating in underside of cantilever concrete balcony roof

Photo No. 21 – Deterioration of underside of exterior concrete staircase

Photo No. 22 – Incipient spalling in underside of front entrance canopy

Photo No. 23 – Concrete cracking at underside of front entrance canopy

Pool Structure:

The resident pool is located to the northwest of the building. The pool structures are CMU walls with concrete slab roofs and brick veneer. There is underground pump room and storage units, as well as cabanas and locker rooms. The pool structures were in overall **fair** condition. Our visual observations of the exterior pool structures are summarized as follows:

- Localized concrete cracking and spalling at slab underside within pool pump room (See Photo 24).
- Localized water infiltration and staining within locker rooms (See Photo 25).
- Water staining and efflorescence within top of foundation wall (See Photo 26).
- Cracking in concrete pool deck perimeter in front of cabanas (See Photo 27).
- Staining and corrosion at pool pump room drain (See Photo 28).

Photo No. 24 – Underside cracking and spalling at pool pump room ceiling

Photo No. 25 – Water infiltration in pool locker room

Photo No. 26 – Water staining and infiltration at top of concrete foundation wall

Photo No. 27 – Cracking in concrete pool deck perimeter walkway

Photo No. 28 – Corrosion staining and efflorescence present at pool pump room drain

CONCLUSIONS & RECOMMENDATIONS

Based on our visual condition survey, review of limited drawings, and professional experience, it is our opinion the main structural elements and framing within The Devon Condominium building are in generally **fair** condition and the overall structural integrity is sound. There is no visible evidence of structural distress patterns that indicate potential subsurface movement or building settlement. While they are outside the overall intent of this report, we found evidence of localized distress and deferred maintenance items, primarily on building elements exposed to the exterior environment.

GOOD -	No repairs or only minor rehabilitation required.
FAIR -	Major maintenance or minor rehabilitation required.
MARGINAL -	Major repair or rehabilitation required.
POOR -	Repair or rehabilitation required immediately.
DANGEROUS -	Repair or rehabilitation urgent and use should be restricted.

While they have not compromised the structural integrity of the building as it pertains to this report, the deteriorated façade and balcony conditions can lead to further distress and potential life safety hazards. These areas exhibit localized cracking, spalling, and prematurely failing concrete repairs. We recommend a façade and balcony condition assessment to be implemented by a professional engineer.

We would also recommend further investigation into the roof of the parking garage. There is evidence of failed waterproofing and improper drainage. The water infiltration has led to significant deterioration of the concrete framing below and should be addressed as soon as possible to prevent a potential falling hazard to pedestrians or vehicles below. All concrete deterioration should be repaired and maintained on a regular basis.

These studies can be performed to allow the condominium association to gain economies of scale when budgeting for future repairs and should be completed before the deterioration continues to worsen.

Thank you for the opportunity to provide The Devon Condominium with our Overall Building Structural Assessment Report. If there are any questions or comments concerning the report contents or if we can be of further assistance, please contact our office.

Submitted by,
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