STAFF REPORT: 3-11-2020 MEETING **ADDRESS: 2405 EWALD CIRCLE** HISTORIC DISTRICT: ADJACENT TO OAKMAN BOULEVARD **INTERESTED PARTY: TYLER TINSEY (DETROIT BUILDING AUTHORITY)** DATE OF SUBMISSION: 2/17/2020 DATE OF STAFF SITE VISIT: 3/6/2020

SCOPE: DEMOLISH BUILDING (ADVISORY OPINION PER 21-2-5)

EXISTING CONDITIONS

The building at 2405 Ewald Circle is an apartment building that was originally built in 1929. The building houses 13,000 square feet and is four stories in height. The roof is hipped with projecting gabled and flat-roof wings at the front elevation. Exterior walls are clad with red brick with stucco detailing at the gable ends. Stucco is also located within the arched window openings and the central window openings (second and third story) at the primary elevation. Additional decorative detailing includes clinker brick at all elevations and basket-weave brickwork at the primary elevation, fourth story. All openings are currently covered with plywood panels. Remaining window sash is generally in poor condition and exterior doors are not extant. Please see the attached report for a full building condition assessment.

The properties within the near vicinity of the subject building, along Ewald Circle, are 2015-2019, oneand two-story, gabled-roof, multi-family buildings which are clad with panel brick and vinyl siding.



PROPOSAL

The project proposes to demolish the building at 2405 Ewald Circle. No new construction is currently planned for the parcel. The building's demolition will be funded by the City of Detroit. As the property is outside of, but directly adjacent to, the Oakman Boulevard Local Historic District's northern boundary and will be funded by the City of Detroit, the Historic District Commission must determine the demonstrable effects that the project may have on the district as per Sec. 21-2-5 of the Detroit City Code. The Detroit Building Authority has therefore submitted the attached structural report in order to illustrate the building's current condition.

STAFF OBSERVATIONS AND RESEARCH

- The Oakman Boulevard Historic District was designated in 1989
- See the attached map, which outlines the location of the district's northern boundary. Specifically, the northern boundary-line extends down the middle/southern half of alley to the rear of 2405 Ewald Circle
- The majority of the buildings within the district are single-family, detached 2 story buildings which date from the 1910s-1950s
- It is staff's opinion that the of the alley to the rear of 2405 Ewald Circle serves to buffer the subject property from the Oakman Boulevard Historic District

ISSUES

None

2405 Ewald Circle



Blue dashed line indicates the northern boundary of the Oakman Boulevard Local Historic District

RECOMMENDATION

Staff recommends that the HDC find that the demolition of 2495 Ewald circle will have no demonstrable effect on the adjacent Oakman Boulevard Historic District



2405 Ewald Circle Residence

Russell Woods-Sullivan Michigan Local Historic District

Historic Structural Assessment Report



February 14, 2020

Prepared for City of Detroit Building Authority 1301 Third Street, Suite 32B Detroit, MI 48226

Prepared by Silman 211 N. Fourth Avenue, Suite 2A Ann Arbor, MI 48104

Silman Project #W3757

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INTRODUCTION

Silman has been retained to perform a historic structure assessment of the building at 2405 Ewald Circle in Detroit, Michigan. The purpose of the report is to assess the existing conditions, document observations and provide recommendations as related to the structure. This investigation serves to help the Historic District Commission as they review and make decisions regarding the structural integrity of the building. As part of our investigation Silman has referenced Secretary of the Interior's Preservation Brief 35 and the structural assessment templates/checklists provided by the city.

The property is in the "Russell Woods-Sullivan" Michigan Local Historic District, which is in the northwest section of the city of Detroit about five miles from downtown. Per the nomination report the Historic District "is primarily residential, consisting of slightly over 1000 single family houses, two-family houses, and a limited number of other multi-unit dwellings, all within a thirty-two block area." The boundaries of the historic district are roughly north of Cortland, south of Waverly, east of Livernois and west of Dexter as shown in the site plan below (see **Figure 1**).



Figure 1 Site Plan of Russell Woods Sullivan Historic District (Google Maps)

Per the nomination "the Russel Woods-Sullivan Area" consists of two subdivisions platted nine years apart by two different developers". The area west of Petoskey Avenue is the Russell Woods section. It typically consists of two-and-a-half story single family homes built in the 1920s and 1930s with some apartment buildings at the northern border. The area east of Petoskey Avenue is the Sullivan section with homes built in the 1930s and 1940s and some larger commercial and multi-family structures at the north and east boundaries.

Structural Description & History

The building at 2405 Ewald Circle was originally built in 1929 based on available documentation. The building was done in the tudor revival architectural style. The structure is roughly 13,000 square feet with 4 stories and plan dimensions of about 80 feet in the north-south direction and 40 feet in the east-west direction. A vicinity map has been provided below showing the building's location within the Russell Woods-Sullivan Historic District (see **Figure 2**).



Figure 2 Vicinity Map Showing Structure's Location (Google Maps)

When describing the structure and identifying areas of deficiencies observed in the proceeding report, Silman has delineated the structure into two areas: the central building and south-east wing (Figure 3).



Figure 3 Plan View of Property

Foundation

Silman observed the foundation system to be comprised of brick masonry foundation walls and a slab on grade. The foundation elements supporting the brick walls were not visible. This was typical in both the central building and south-east wing.

Floor Framing

Within the central building, the first-floor framing appears to typically consist of wood joists spanning eastwest in two bays. It appears there is an interior wood stud bearing wall running north-south down the middle of the building. At the northern portion of the building, the central bearing wall terminates and transitions to a steel wide flange girder spanning between the central bearing wall line and north foundation wall. Similar to the north, at the central building's southern end, the bearing wall terminates and transitions to a wide flange girder spanning between the central bearing wall line and south foundation wall. The joists typically span between the east/west foundation walls and the interior bearing wall /steel girder line. At the south-east wing, a steel wide flange girder was observed spanning in the east-west direction, down the center of the building wing between north-south running masonry foundation walls. Wood joist were observed to span in the northsouth direction between perimeter foundation walls and the central girder.

The second and third floor framing appear to be of a similar configuration as the first floor. Note that due to the poor and unsafe condition of the first-floor framing, Silman's observations were limited to the stair well at these upper levels.

Roof Framing

Due to the poor and unsafe condition of the stair well, Silman could not access the third floor to observe the underside of the roof framing.

Exterior

The façade of the building typically consists of a brick masonry walls. Windows openings were either framed with steel lintels or brick arches. Two chimneys were observed that appeared to be centered on the roof of the central building. A parapet was observed at the east façade of the south-east wing.

STRUCTURAL CONDITION ASSESSMENT

Assessment completed 1/29/2020

Foundation

Where visible, the brick masonry foundation walls were observed to be in good condition in both the central building and south-east wing (Figure 4). There were a number of discrete locations where cracking was observed; typically at the end bearing locations of the floor joist (Figure 5). The slab on grade could not be appropriately assessed due to the large amount of debris present.

Floor Framing

The first-floor wood joist framing, within the southern portion of the central building and south-east wing, typically appeared to be in poor condition or collapsed. Extensive water deterioration was observed throughout most of the visible joists (Figure 5). Large areas of the floor framing were collapsed in the south portion of the building (Figure 7 & Figure 8). Large portions of the joist framing within the building's western half was observed to have collapsed (Figure 9 & Figure 10). Access to the northern portion of the building was restricted due to the large amount of debris obstructing the walkway caused from the collapse of the first floor above (Figure 11 & Figure 13). Where visible, the steel wide flange girders were observed to be in fair condition, exhibiting moderate amounts of surface rusting (Figure 6).

Due to the extensive water damage at the joists and large portions of the first floor that have collapsed, Silman's observation of the second-floor joist from the first floor below was restricted to the local vicinity of the stairwell. The observable joists within the hallway appeared to be in fair condition exhibiting moderate amounts of water staining (Figure 13). When observing the underside of the third floor framing from the floor below, Silman had observed similar deficiencies within the joist spanning over the hallway (Figure 14). In addition, Silman had observed a collapse of the local framing directly west of the stairwell (Figure 15). Note that observations of these joist were also made primarily from the stairwell. From the exterior, Silman observed a portion of the third floor framing to be collapsed (Figure 23).

Roof Framing

Due to the poor and unsafe condition of the stair well, Silman could not access the third floor to assess the underside of the roof framing. The stair's wood stringers and tread assembly had exhibited extensive amounts of water damage typically at each floor (Figure 11).

Exterior

The north façade of the main building was generally in fair condition. There were bricks throughout the façade that were observed to have severe spalling, were missing or were broken (Figure 15 and Figure 16). Rusting of the steel lintels was observed at the first-floor openings and cracking was observed at the brick surrounding the opening (Figure 20).

The west façade was in similar condition. Rusting of the steel lintels at openings was visible with brick deterioration observed at the lintel bearings and above the opening (Figure 23 to Figure 25). Water staining was visible below a roof gutter (Figure 26).

The brick masonry at the east façade was in similar condition to the north and west. The steel lintels appeared to be in better condition at this façade with no visible rust or rust-jacking observed (Figure 29). The dormer at the south façade appeared to be leaning back, it was unclear if this was intentional or a deformation of the framing.

The east façade of the south-east wing appeared to be in good to fair condition. There are no windows at this façade, the only deficiency observed was local spalling of the bricks throughout the façade. There appeared to be areas with mortar deterioration at the parapet.

The north façade of the south-east wing was observed to be in similar condition (Figure 32). The parapet at the northeast corner was severely deteriorated with missing and loose bricks observed (Figure 33).

The east façade was in similar condition with brick spalling observed throughout. Local deterioration of the brick was observed around window openings (Figure 36 and Figure 37). At the entrance at the east façade, deterioration and voids in the roofing was observed (Figure 38).

At the building entrance there was a brick pillar that was severely deteriorating and partially collapsed (Figure 39).

RECOMMENDATIONS

Critical Deficiencies

- Most of the floor framing observed at the first floor was either collapsed or severely deteriorated. We recommend that the first-floor framing be replaced. In the interim access should be restricted to this area of the first floor.
- The stair framing is in danger of collapsing. The stair should be removed and replaced. In the interim access should be restricted to this area of the first floor.
- Observation of the upper floors was extremely restricted due to the unsafe nature of the first-floor framing and stair. Due to the amount of water infiltration observed in the building and views of upper floors from the exterior we suspect that large portions of the upper floors are also severely deteriorated. Access to the upper floors should be provided so that the upper floors can be surveyed to confirm the extent of damage.
- At the parapet in the south-east wing there are bricks in danger of falling from the façade. The bricks and coping stone in this area should be secured. The parapet should be taken down to sound brick and rebuilt.

Serious Deficiency

• The roofing at the east entry should be replaced/repaired as needed to prevent further water infiltration into the building.

Minor Deficiencies

- Areas at the façade with mortar deterioration should be repointed and cracked, loose, spalled or missing bricks should be replaced. Cracks in the masonry should be repaired.
- At window openings where rusting of the lintels or displacement at the surrounding brick was observed, the lintels should be exposed to determine the extent of rusting. At this time an engineer should review the lintels to determine if they can be repaired in place or must be replaced.

APPENDIX A – PHOTOGRAPHS



Figure 4 Typical Condition of Basement Brick Masonry Foundation Walls



Figure 5 Typical End Bearing Condition of First Floor Joist at Foundation Walls

2405 Ewald Circle, Historic Structural Assessment Report



Figure 6 Southern Steel Wide Flange Girder at First Floor of Central Building



Figure 7 Local Collapse of First Floor Framing in South West Corner of Central Building



Figure 8 Local Collapse of First Floor Framing in South East Building Wing



Figure 9 Extensive Water Damage and Local Failure of Floor Joist within the Central Building's Western Half



Figure 10 Multiple Level Floor Collapse Adjacent to the West Side Entrance of the Central Building



Figure 11 Collapse of First Floor Framing within the Central Building's Northern Half



Figure 12 Typical Condition of Wood Frame Egress Stair within the Central Building



Figure 13 (A) Local Floor Collapse at First Floor North Hallway & (B) Second Floor Joist Framing of Central Building



Figure 14 Third Floor Joist Framing at Hallway of Central Building



Figure 15 Third Floor Collapse at Western Bay of Framing within the Central Building



Figure 16 North Façade of Central Building



Figure 17 North Façade of Central Building



Figure 18 North Façade of Central Building



Figure 19 Typical Condition of Brick Masonry at North Façade of Central Building



Figure 20 (A) Front View and (B) Side View of Lower Level Lintel at North Façade of Central Building



Figure 21 West Façade of Central Building



Figure 22 Level 3 Hoist Beam at West Façade of Central Building



Figure 2317 Observed Collapse of Third Floor Joist Framing from Exterior of Central Building



Figure 24 Lower Level Lintel at West Façade of Central Building



Figure 25 Typical Exposed Window Opening Condition at North Façade of Central Building



Figure 26 Water Staining of Brick Facade Below Gutter Drain at North Façade of Central Building



Figure 2718 South Façade of Central Building



Figure 28 Typical Condition of Brick South Facade and Second Floor Window Sill of Central Building



Figure 29 Typical Exposed Window Opening at South Façade of Central Building



Figure 30 Apparent Leaning of Dormer at South Façade of Central Building



Figure 31 East Façade of South-East Building Wing



Figure 32 North Facade of South-East Building Wing



Figure 33 Apparent Local Collapse of Brick Masonry Parapet at North Facade of South-East Building Wing



Figure 34 Southern Portion of East Façade of Central Building



Figure 35 Northern Portion of East Façade of Central Building



Figure 36 Deteriorated Brick Façade Near Window Sill and Lintels of Central Building



Figure 37 Deteriorated Brick Façade Near at Cellar Window



Figure 38 Lower Roof to Main Entrance at East Façade of Central Building



Figure 39 Deteriorated Brick Stack at North East Corner of Property

APPENDIX B - STRUCTURAL ASSESSMENT REPORT VISUAL INSPECTION CHECKLIST



PROPERTY: 2405 Ewald Circle

Part 1: Property Description

Brick

Type of Construction: Wood Frame

Steel Frame Concrete		Stone Other (List)				
Building Classification: Residential Commercial Institutional		Government Religious Industrial		Ŧ		
Characteristi	cs:					
Building Age:	0-25yrs	25-120 yrs	50-100yrs	100 + yrs		
Foundation:	Pier	Slab	Chain Wall	Basement	Other	
Roof Type:	Hipped	Gable	Mansard	Pyramid	Flat	Other
Roof Cover:	Slate	Metal	Tile	Asphalt	Asbestos	Other
Wall Finish:	Stucco	Wood	Vinyl	Masonry	Asbestos	Other
Landscape:	Walkway	Driveway	Fences	Sculpture/Foun	tain Structur	es
Interior Condition:	Mold/Mildew	Falling Plaster	Structural Damage	Other		
Flood Data:						
Nature of Wate	N. 055.	Standing	Flowing	Seepage	Water Marks	Other
Space where v	vater entered	Basement	Crawl	First Floor	Roof	Other
Depth of water measured from main floor (+/-)						
Evaluation:						
Collapsed or off Foundation Leaning/Other Structural Damage Damage to Window/Doors Chimney, parapet, or other falling hazards Roof Damage Foundation Damage Damaged Cladding: Material Orich Damaged Electrical/Mechanical/AC Systems			Minor Minor Minor Minor Minor Minor Minor	Moderate Moderate Moderate Moderate Moderate Moderate Moderate	Severe Severe Severe Severe Severe Severe Severe Severe	
Landscape damage			Minor	Moderate	Severe	

Estimate Building Damage:

None	30-60%		
10%	60-90%		
1-30%	90-100%		



PROPERTY: 2405 Ewald Circle

Part 2: Structural Assessment

1. Structural plans and details:

- a) Description of the site and its structures
- b) Description of the foundation system
- c) Description of the structural system (including story height)

Basement, Level 1, Level 2, Level 3, Level 4, Roof

 Presence of critical structures and structures without redundancies: (i.e. transfer girders, small/ narrow/ slender columns, cantilever structures, long span structures, cable structures, timber structures, etc.)

3. Loading:

- a) Compatibility of existing usage with the design loading
- b) Deviation from intended use or supporting higher design imposed loads
- c) Signs of overloading (to show affected locations on plan)

4. Addition and Alteration works:

- a) Presence of Additions and Alterations
- b) Impact of Additions and Alterations on the building structure

5. Signs of structural defects and deterioration:

- a) Building tilt/ settlement
- b) Structural deformation
- c) Major structural defects (e.g. structural cracks, decayed timber member)
- d) Minor structural defects
- e) Non-structural defects

6. Termite Attack:

- Need for inspection by anti-termite specialist
- b) Need for termite treatment by anti-termite specialist

7. Exposure to aggressive environment:

- a) Immersed in water Columns and Basement, or Leaks in Roof
- Aggressive chemical which may accelerate the deterioration of structural elements, particularly in industrial buildings

8. Retaining walls and slope protection structures:

- a) Defects of retaining wall and other slope protection structures (e.g. cracks, tilt, displacement)
- b) Signs of undesirable condition surrounding retaining wall (e.g. tension cracks in soil,
 - presence of big trees nearby, inadequate surface, drainage)

9. Safety Barriers (i.e. parapets & railings):

- a) Any defects
- 10) Record of previous strengthening works done

Silman

PROPERTY: 2405 Ewald Circle

Foundation:

Stab on grade Brich Masonry found wells DApper to be in good conditu

Floor Framing:

- . wood joist supported e masonry beary wall (+yp) is Local collegese abs from ext e L3
- · Stul WF girders spanny bit masonry beary walls
- . Masonry being walls in good cond typ
- · Stul WF girders surfaa Booky
- ". Volot extensive water damage 23 Large partions of joist failing & floor collegise
- " Wood stours in poor condy, treads deteriorated through water damage. Only went up to 1" - 2nd Floor. Unsert to go up to menony floors due to deteriorated floors

Flight DL 1145



PROPERTY: 2405 Ewald Circle

Roof Framing:

Exterior:

North Facad

· Moderake cracky in brick (Local) typ. Brick ductionaun

+ Exhnsive morter Mortor dukrioration typ, espec around brick sills & windows * Fallen bricks on

· Header course every It's course · Top corner of facade, local

Brich dukrioration * mortor 1083 y Bust Jacky

· Surface rust obs. in lind V Brich dukrior. (sted) above windows, Lower linky, extens. rusty · hoosing moderately weatherd + Local crach its

crachy

ground observed

& dukristand e perimuke. Store lingel apol West Facade 3rd Flour

·Similiar to N. Facada Hoist been protrudy from yth floor. . Some window openings not covered exposed to outself " Lintule @ upper floors heavily rusted South Facada

. Brien dut typ as north facuel stel linuls in better cond. Lourface Rust) · Apex of roots appears to be keening back toward buildy

East Facad

Brich Persputt No windows on this face 3 south parties Brich is in better condition Lo still local cracky ob. " (rachy obs in parapett be corner bricks endager of fally Local bowing of facad at first floor Local Entrance Bood Moderade weathing 8 dutric rate of Holl in Roof Some brich willo missy brice . fintus extensive rust my . popur roct, stucco pedy off · Gutter severing duterior ased 3'

