**GOVERNMENT OF THE DISTRICT OF COLUMBIA**
**DEPARTMENT OF GENERAL SERVICES**

**Building and Site Repairs at 2601 & 2603 Naylor Road SE**

**Solicitation No.: DCAM-16-CS-0087**

**Amendment No. 3**
**Issued: March 18, 2016**

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This Amendment No. 3 is issued and hereby published on the DGS website on March 18, 2016. Except as modified hereby, the Request for Proposals ("RFP") remains unmodified.

**Item #1 A.5 Procurement Schedule**

Delete: Proposals Due March 24, 2016 at 2:00 pm
Insert: Proposals Due April 7, 2016 at 2:00 pm

**Item #2 Section B Scope of Work**

Insert: Electrical Power Assessment /Scope of Work (Exhibit 1)

**Item #3 Attachments**

Insert: Field Report Dated February 15, 2013 (Exhibit 2)

**Item #4 Attachments**

Insert: Field Report Amendment Dated August 21, 2015 (Exhibit 3)

- End of Amendment No. 3 -

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES

**Power Upgrade 2601 & 2603 Naylor Road Apartments**
2601/2603 Naylor Road, SE, Washington, DC

# ELECTRICAL POWER ASSESSMENT

The subject buildings comprise of multi-family housing for displaced District residents under the care of the DC Department of Human Services. Electrical service to the buildings is through PEPCO pole-mounted transformers. **Building 2601** and two other buildings are served by a 167 KVA transformer at 120/240v, 1-phase, 3-wire secondary. **Building 2603** and three other buildings are served by a 167 KVA transformer at 120/240v, 1-phase, 3-wire secondary. Existing power service for each building is at 200A, 120/240v, 1-phase, 3-wire through a 200A, 240v, 2-pole S/N Main Line Switch and 200A, 1-phase, 3-wire, 30-pole Main Distribution Panel located at the Lower Level.

The existing 200A Main Distribution Panel for **Building 2601** sub-feeds eight (8) 100A, 120/240v, 1-phase, 3-wire panelboards located in the Kitchen of the Dwelling Units through 30A, 240v, 2-pole Circuit Breakers. Each of the Dwelling Unit Panelboard has only 1-20A and 1-15A Branch Circuit Breakers serving the general lighting and receptacle loads. Because these two breakers are inadequate for the loads connected to them, there are reports of overload of the electrical circuits in the units. In addition to the branch circuit breakers serving the panelboards in the dwelling units, the 200A Distribution Panel also serves one (1) existing 100A Window A/C unit Panelboard through a 100A, 240v, 2-pole circuit breaker.

The existing 200A Main Distribution Panel for **Building 2603** sub-feeds eight (8) 100A, 120/240v, 1-phase, 3-wire panelboards located in the Kitchen of the Dwelling Units through 30A, 240v, 2-pole Circuit Breakers. Each of the Dwelling Unit Panelboard has only 1-20A and 1-15A Branch Circuit Breakers serving the general lighting and receptacle loads. Because these two breakers are inadequate for the loads connected to them, there are reports of overload of the electrical circuits in the units. In addition to the branch circuit breakers serving the panelboards in the living quarters, the 200A Distribution Panel also serves one (1) existing 60A, 6-pole Window A/C unit Panelboard through 60A, 240v, 2-pole circuit breaker. An existing 100A, 18-pole Window A/C unit Panelboard is also served through a cable pullbox located below the 200A Distribution Panel.

# SCOPE OF WORK

The electrical power system for both buildings needs to be upgraded as indicated below to relieve the overload of the electrical systems in the Buildings:

## Building 2601 Main Electrical Room (located on the Lower Level)

Line Item #1
Install (1) new 400A, 240V, 2-pole S/N service-entrance-rated Safety Disconnect Switch fused at 400A, and use it to serve (1) new 400A, 120/240V, 1-phase, 3-wire, 400A Main Lugs, 30-pole power panelboard to be located in the room, as described below. Provide new 400A, 120/240v, 1-phase, 3-wire PEPCO Service to the Building. New service feeder size shall be 3-500KCMIL CU + 1#1/0 CU Ground in 3-inch Conduit. The new power service shall be activated before the old service is disconnected and removed to reduce power disruption to the Building. Provide grounding per the National Electrical Code (NEC) requirements. Provide necessary fireproofing of all wall penetrations per code requirements.

Line Item #2
Provide (1) 400A, 120/240V, 1-phase, 3-wire, 400A MLO, 30-pole power panel, to be located in the Main Electrical/Mechanical Room. Panel shall have (8) 240V, 60A,
2-pole, (1) 240V, 100A, 2-pole, and (4) 240v, 20A, 2-pole circuit breakers. Panel will be designated as Panel “DP1”, and shall be utilized to serve the existing Panels located in the Dwelling Units, and the existing 100A Window A/C unit Panelboard located in this room. See the attached Panelboard Schedule for the new Panel “DP1”. Provide a typed panelboard schedule showing all loads served by the new panel.

Line Item #3
Provide connections to existing Emergency Lighting and Fire Alarm Circuits through direct bus taps ahead of the new 400A Main Service Disconnect Switch. Wire sizes shall be same as existing.

Line Item #4
Provide (3) new 20A, 1-pole circuit breakers in available spaces in each of the existing eight (8) panelboards in the Dwelling Units. Use the new breakers to serve new branch circuits in the units. See the attached Panelboard Schedule for the new Panel “DP1” for new feeder sizes for existing Dwelling Unit Panelboards.

## Building 2603 Main Electrical Room (located on the Lower Level)

Line Item #5
Install (1) new 400A, 240V, 2-pole S/N service-entrance-rated Safety Disconnect Switch fused at 400A, and use it to serve (1) new 400A, 120/240V, 1-phase, 3-wire, 400A Main Lugs, 30-pole power panelboard to be located in the room, as described below. Provide new 400A, 120/240v, 1-phase, 3-wire PEPCO Service to the Building. New service feeder size shall be 3-500KCMIL CU + 1#1/0 CU Ground in 3-inch Conduit. The new power service shall be activated before the old service is disconnected and removed to reduce power disruption to the Building. Provide grounding per the National Electrical Code (NEC) requirements. Provide necessary fireproofing of all wall penetrations per code requirements.

Line Item #6
Provide (1) 400A, 120/240V, 1-phase, 3-wire, 400A MLO, 30-pole power panel, to be located in the Main Electrical/Mechanical Room. Panel shall have (9) 240V, 60A,
2-pole, (1) 240V, 100A, 2-pole, and (2) 240v, 20A, 2-pole circuit breakers. Panel will be designated as Panel "DP3", and shall be utilized to serve the existing Panels located in the Dwelling Units, the existing 100A and existing 60A Window A/C unit Panelboards located in this room. See the attached Panelboard Schedule for the new Panel "DP3". Provide a typed panelboard schedule showing all loads served by the new panel.

Line Item #7
Provide connections to existing Emergency Lighting and Fire Alarm Circuits through direct bus taps ahead of the new 400A Main Service Disconnect Switch. Wire sizes shall be same as existing.

Line Item #8
Provide (3) new 20A, 1-pole circuit breakers in available spaces in each of the existing eight (9) panelboards in the Dwelling Units. Use the new breakers to serve new branch circuits in the units. See the attached Panelboard Schedule for the new Panel "DP3" for new feeder sizes for existing Dwelling Unit Panelboards.

### SPECIFIC CONDITIONS

1. Provide identification tags for the existing and new power panels.
2. The Apartments and its offices shall remain in operation throughout construction. All construction activities shall be coordinated with the office administrator in order to minimize disruption of its operation.
3. The contractor shall be solely responsible for verification of all existing conditions in the contract area, and the work required under this Scope of Work.

4. A pre-construction meeting will occur prior to the start of the construction. This meeting will include representatives from the DGS Capital Construction Services, the Department of Human Services, and the Contractor. This meeting is intended to familiarize the team with the program for the project and specific requirements stemming from the facilities' operation.
5. Obtain all necessary Building Permits from the Department of Consumer and Regulatory Affairs (DCRA) prior to starting the construction.

# Naylor Road Evaluation

2603 Naylor Road SE
Washington DC

DGS

## Final Report

Draft for Comment
15 February 2013

Studio Twenty Seven Architecture | Leo A Daly
1600 K Street NW, Suite 800
Washington, DC 20006

Robert Silman Associates
1053 31st Street NW
Washington DC 20007

TABLE OF CONTENTS

Studio27Architecture | Leo A Daly are the prime Architect/Engineer performing an evaluation of structural deterioration of a portion of one wall of an existing 4-story building at 2603 Naylor Road SE in Washington DC owned by the Government of the District of Columbia. The evaluation includes site observations that were enabled by temporary demolition and reconstruction by construction staff of the Department of General Services at probe locations specified by the Architect/Engineer team.

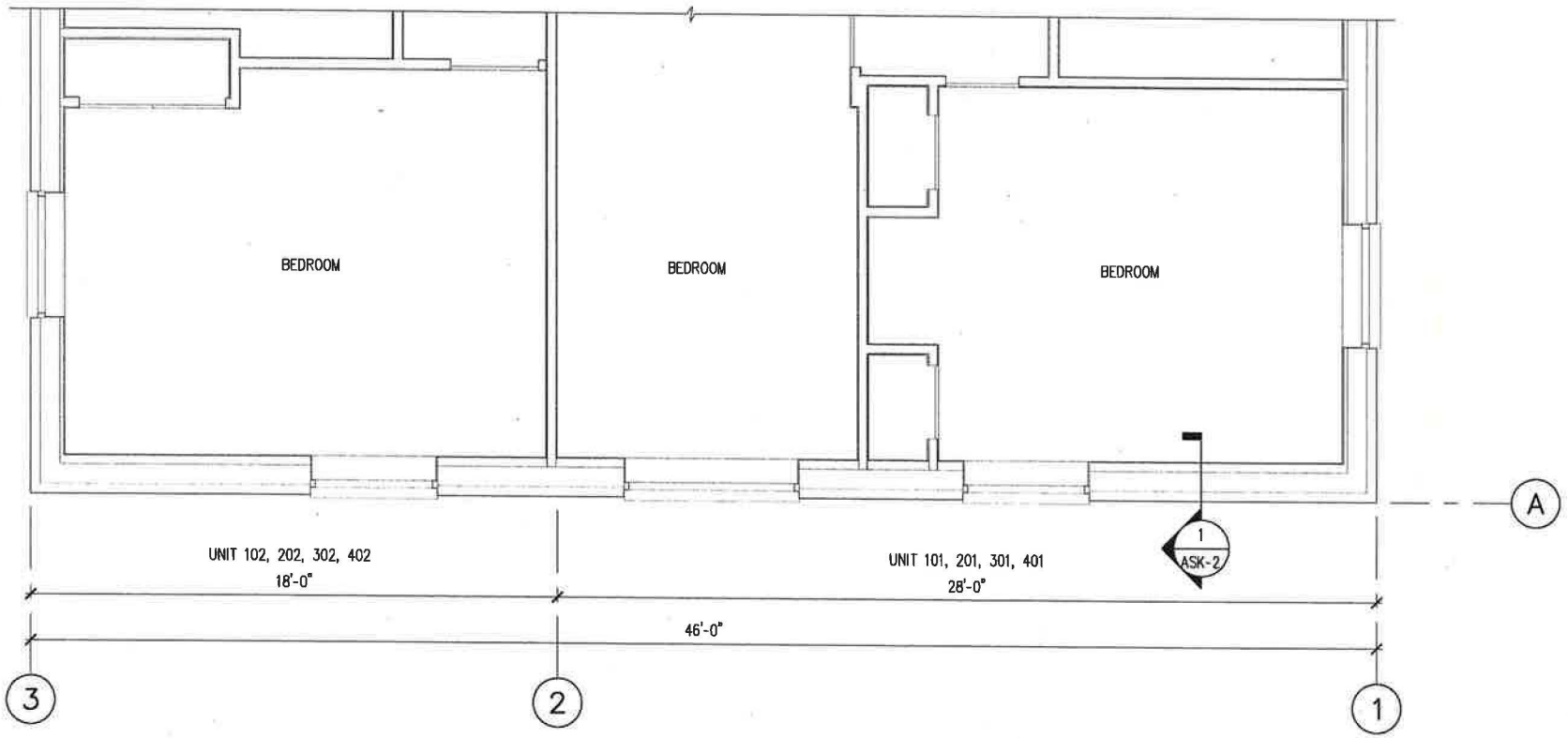
The deterioration consists of a large crack across one masonry wall and several cracks at windows around the corner from the wall. In addition to the crack in the wall, observations on site also identified:

1. Downspouts not installed below scuppers on the exterior wall.
2. Dampness in the interior plaster finish above several windows in this wall and adjacent walls where downspouts were not installed.

The recommendations for further action by the Owner are:

1. Install downspouts at perimeter roof drains on all sides of the building.
2. Where the brick is peeling away from the back wall, remove the brick from the location where the separation begins down to the top of the footing. Then rebuild that portion of the brick wall to cover proper water proofing. During this process the A/E should be notified so the existing footing conditions can be observed.
3. Install crack monitors on the stepped cracks on the side wall and conduct periodic monitoring to record whether any changes occur. While it is unlikely that the back wall is settling, the monitoring process will indicate movements before they become more visible and create damage to the existing structure and interior finishes.

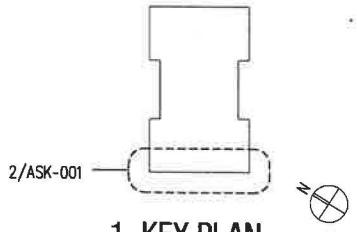
The following pages show a partial floor plan and partial section created to communicate with DGS personnel about probe locations. These are followed by annotated photographs of existing conditions with the missing downspouts highlighted. This report is concluded with Robert Silman Associates' detailed structural evaluation report.




## 2. PARTIAL TYPCIAL FLOOR PLAN

FT 0 1 2 4

## 3. OVERHEAD VIEW




## 1. KEY PLAN

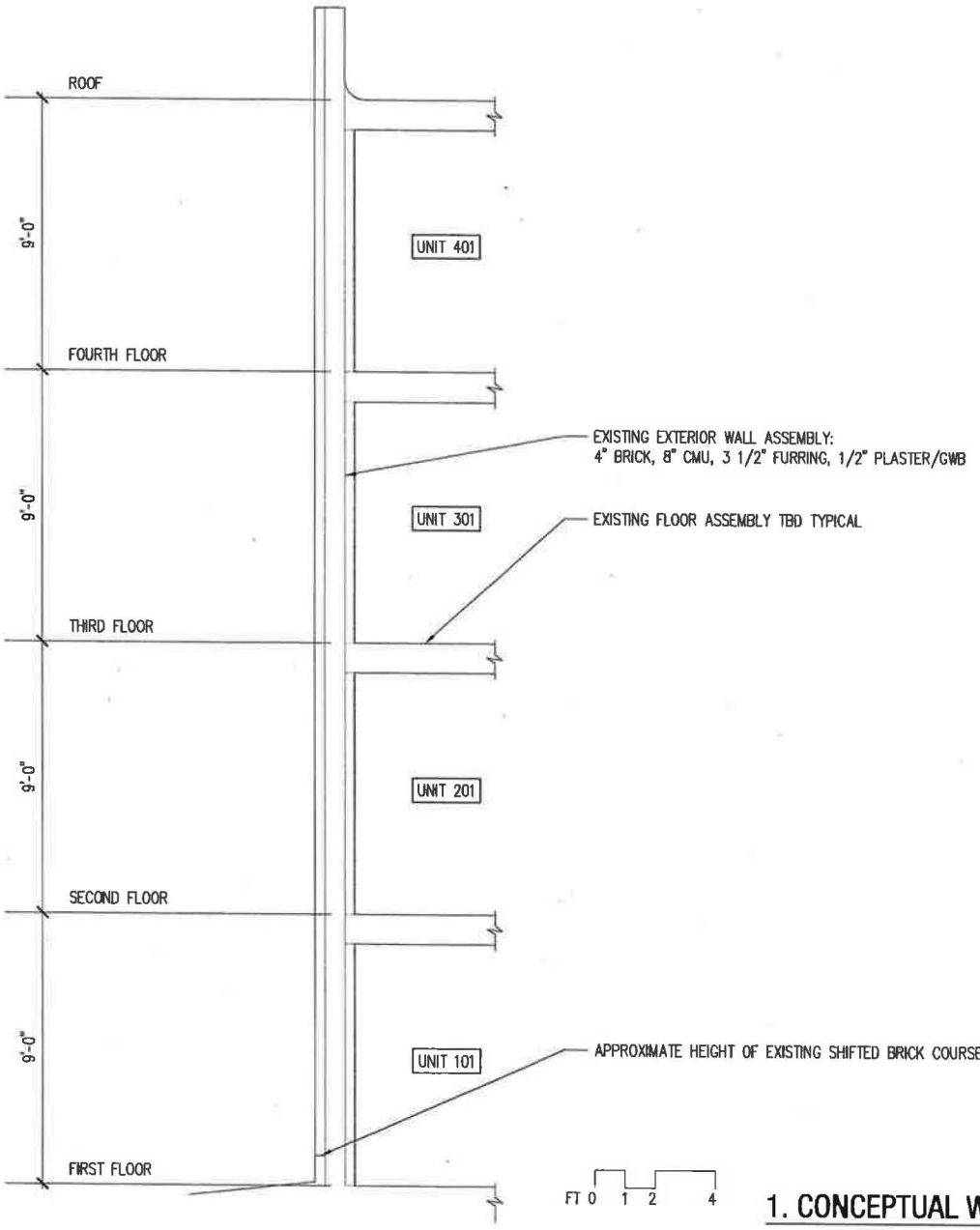
ASK-1

SCALE: 1/4"=1'-0"

DATE: 27 NOV 2012

2603 NAYLOR ROAD SE

STUDIO MEENYHEER ARCHITECTURE | LEO A DALY




## 1. CONCEPTUAL WALL SECTION

2603 NAYLOR ROAD SE
STUDIO TWENTYSEVEN ARCHITECTURE | LEO A DALY

DATE: 27 NOV 2012
SCALE: 1/4"=1'-0"

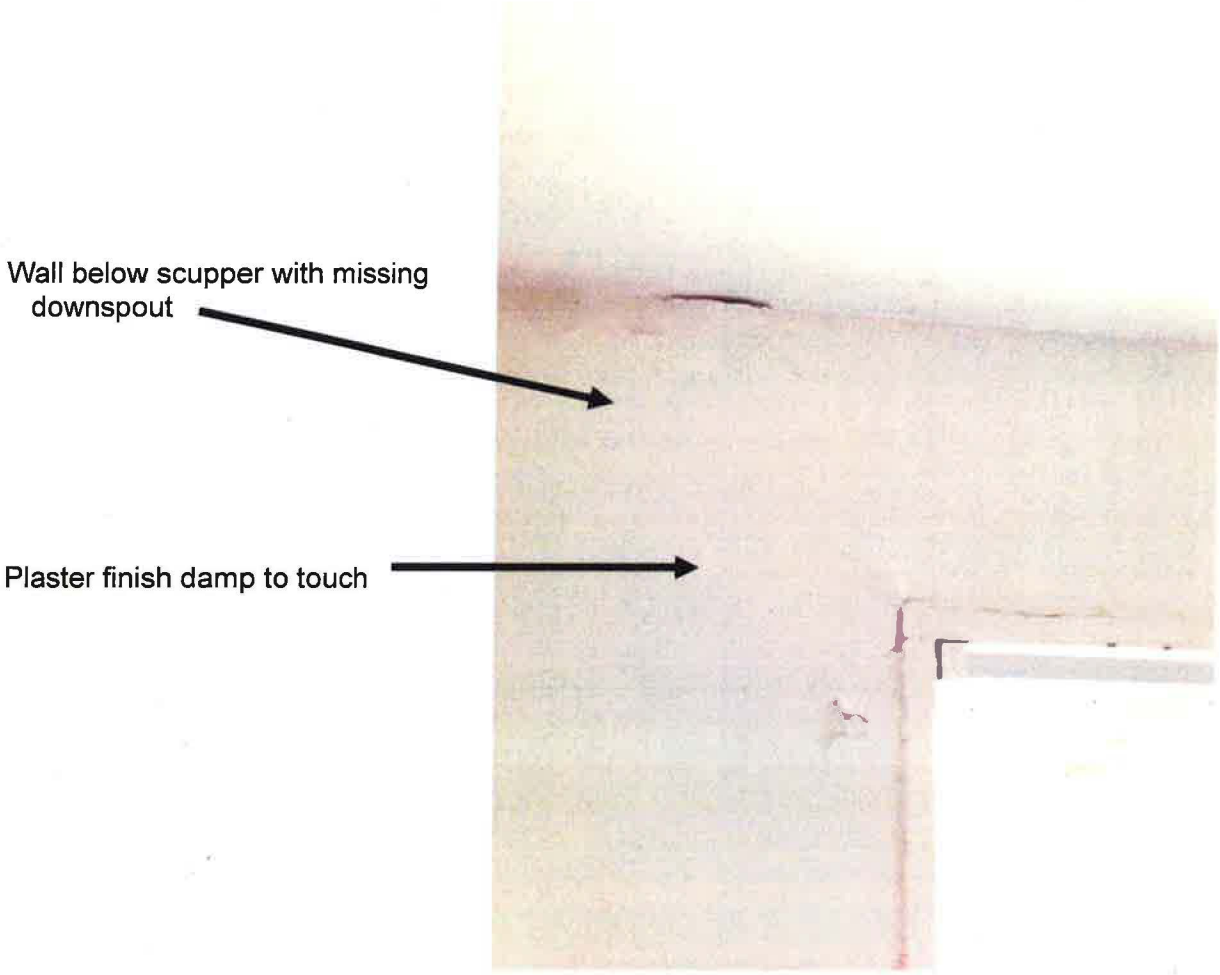
ASK-2

Existing Photo 1: Crack and deterioration at south wall.

Existing Photo 2: Example of missing downspout

Existing Photo 3: General roof conditions

Existing Photo 4: Interior wall dampness and deterioration.



ROBERT SILMAN ASSOCIATES
STRUCTURAL ENGINEERS

# Structural Assessment Report

PRINCIPALS
Robert Silman
Joseph F. Fortorella
Kirk Mettam
Nat Oppenheimer
Edmund Meade

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Washington DC 20007
P 202 333 6230
F 202 318 3015
www.silman.com

| | |
|---|---|
| **Date:** | 02-15-2013 |
| **Report:** | Structural Assessment Report |
| **Attention:** | Jim Spearman<br>Studio 27<br>1600 K Street NW, Suite #800<br>Washington, DC 20006 |
| **RSA Project #:** | W2947 |
| **Submitted By:** | Adam Rush (RSA) |
| **Dates on Site:** | 11-19-2012, 12-11-2012,<br>12-21-2012, 01-15-2013 |
| **Property Name:** | Naylor Road |
| **Property Location:** | 2603 Naylor Road, SE<br>Washington, DC 20002 |
| **Present at Site:** | Adam Rush (RSA)<br>Jim Spearman (S27) |

## INTRODUCTION

Robert Silman Associates (RSA) has been retained to perform an investigation to identify the structural systems of the existing building and to evaluate the suitability of the existing conditions. RSA was also retained to perform a cursory review of non-structural building elements, such as exterior walls, interior partitions, drainage, water-proofing and other components that may affect the performance of the structure.

## BACKGROUND

In the fall of 2012, interior plaster finishes had peeled off the back wall and bowed into the apartment units at the first and second floors. The plaster was removed and a stud wall was added along the back wall to provide a new finish surface. Around this time a long horizontal crack was observed running along the outside face of the back wall. This crack formed where a wythe of bricks began to separate from the rest of the wall and move outwards creating a lip that was measured up to 1/2" in width. In one location a few bricks had completely separated from the wall and fallen to the ground. The owner, DC DGS, determine that the combination of the separated plaster with the fallen bricks warranted closer investigation to determine the cause of these occurrences.

RSA visited the site on November 19, 2012 in order to review existing conditions and identify the existing structure. No existing


**Photo 1:** Aerial View of 2603 Naylor Rd (Bing.com)

**Photo 2:** Long horizontal bed joint separation of brick wythe with location of fallen bricks.

building drawings were available for review and thus probes through the existing finishes were necessary to expose the existing structure. RSA returned to the site on December 11 and 21, 2012 and January 15, 2013 to provide guidance for opening probes and to review the structural configuration uncovered.

## EXISTING STRUCTURE

The exterior grade slopes down from the front of the building to the back and then drops off steeply behind the back of the building. Based on observed conditions discussed below, it is assumed that the exterior wall is supported by a strip footing a few feet below ground. A test pit was opened at the back wall with the intention to review the existing foundations, but was not deep enough to expose them.

The basement consists of a slab on grade and is partially below grade. The first floor framing consists of steel bar joists supported by concrete masonry unit (CMU) walls. These joists carry a concrete slab cast over a wire mesh. The joists span parallel to the back wall and do not apply any floor loads to the back wall. The interior apartment walls between the basement and first floor are load bearing CMU. The exterior wall is a composite wall construction consisting of 6" CMU integral with a 4" brick façade. These walls are also load bearing.

The floor framing from the second floor to the roof consists of wood joists supporting wood decking. The wood joists also span parallel to the back wall and do not apply any floor loads to the back wall. These joists bear on interior wood stud walls and exterior load bearing walls.

## OBSERVATIONS

Observations of the exterior masonry walls identified stepped cracks along the side walls adjacent to the back wall in question. Most of these cracks had been repointed and little to no additional separation was observed. This

**Photo 3:** Stepped crack at base of exterior load bearing walls

**Photo 4:** Existing downspout with no drain pipe

**Photo 5:** First floor framing. Steel bar joists with concrete slab poured over wire mesh.

indicates that the cracks formed prior to the separation of the interior plaster walls and correspond to an older condition unrelated to the interior plaster wall issue along the back wall. Furthermore, no parallel cracks were observed in the interior plaster walls along the sides of the building. This is not surprising as masonry cracks with much smaller movement than the plaster because the wood furring allows for small movement without stressing the plaster.

Stepped cracks can occur with vertical movement of a perpendicular wall surface. At some point the back wall may have moved down slightly. This is unlikely however masonry walls do not tend to settle uniformly. As a result, there would be many more cracks present along the back wall than were observed in the field. Loading on this back wall is also very small and a standard strip footing should be more than adequate to support the weight of the brick wall above. As a result of these observations and understanding of the existing structure, it is unlikely that the problems observed are results of foundation settlement.

The likely culprit for the plaster separation and the brick separation is water infiltration into the back wall. The probes around the window casing uncovered water stains and cracks in the plaster centered at windows. Water likely infiltrated around the windows, soaked into the wood furring, and over time, caused the wood to decay or the anchors of the furring to the masonry wall to loosen. This weakened the anchorage of the wood furring to the back wall which led to the plaster peeling from the back wall as indicated by the tenants and maintenance staff during the site visits. Observation of this was limited as the failed plaster was removed and a new stud wall with drywall was installed along the back wall before RSA was requested to investigate the site conditions.

The separation of the brick from the CMU wall along the outside face of the back wall likely has a similar cause. This separation occurred at a joint below a header course of

**Photo 6:** Exposed framing at corner of window on back wall. Water stains observed on furring strips around window.

**Photo 7:** Second floor framing with wood joists supported on interior stud walls

**Photo 8:** Floor framing detail photo taken just above apartment ceiling.

brick, tying the outer wythe of brick to the inner wythe of CMU. This joint also has a water proofing paper running continuously along the joint. It is likely that water from below the basement slab on grade bled into the masonry wall, stopped at the paper, and over the years, the cycling of freeze-thaw caused the outer wythe of brick to separate.

## RECOMMENDATIONS

Based on our observations and understanding of the existing structure, we recommend the following:

- Where the brick is peeling away from the back wall, we recommend removing the brick from the location where the separation begins down to the top of the footing. Then rebuild that portion of the brick wall following details provided by the architect to cover proper water proofing. RSA should be notified when the top of the footing is exposed and the majority of the brick has been removed so that work and the existing footing conditions can be observed.
- Install downspouts at perimeter roof drains.
- Install crack monitors on the stepped cracks on the side wall and conduct periodic monitoring to record whether any changes occur. While it is unlikely that the back wall is settling, the monitoring process will indicate movements before they become more visible and create damage to the existing structure and interior finishes.

If you should have any questions or concerns related to the content of this report, please feel free to contact us at (202) 333-6230. We thank you for your consideration.

Under the time constraints and limited scope of review, RSA did not perform a thorough structural analysis of the building or a comprehensive review of the overall impact the earthquake may have had upon the building. As a result, not all hazardous conditions may have been observed.

# Naylor Road Evaluation

2603 Naylor Road SE
Washington DC

# Final Report

Draft for Comment
15 February 2013

With Amendments
21 August 2015

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The deterioration consists of a large crack across one masonry wall and several cracks at windows around the corner from the wall. In addition to the crack in the wall, observations on site also identified:

1. Downspouts not installed below scuppers on the exterior wall.
2. Dampness in the interior plaster finish above several windows in this wall and adjacent walls where downspouts were not installed. This issue appears to be created by blocked scuppers and roof drains that can be easily clogged by winter ice or other debris.
3. The south side of Building 2601 is not properly graded. The earth is eroding and rain water is captured against the building and in the basement stair areaway.

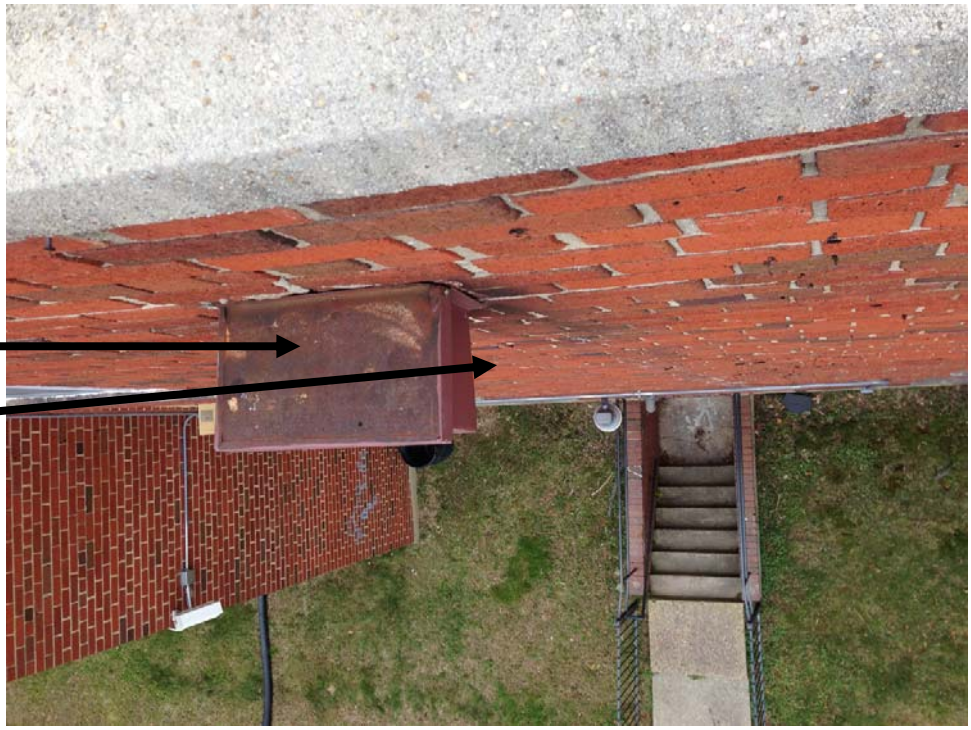
The recommendations for further action by the Owner are:

1. Install downspouts at perimeter roof drains on all sides of the building.
2. Where the brick is peeling away from the back wall, remove the brick from the location where the separation begins down to the top of the footing. Then rebuild that portion of the brick wall to cover proper water proofing. During this process the A/E should be notified so the existing footing conditions can be observed.
3. Install crack monitors on the stepped cracks on the side wall and conduct periodic monitoring to record whether any changes occur. While it is unlikely that the back wall is settling, the monitoring process will indicate movements before they become more visible and create damage to the existing structure and interior finishes. The movement of the bricks is continuing. The issue should be repaired.
4. The existing roof of building 2603 is not properly sloped and should be replaced with a new roof of a more more appropriate design.
5. The area at the south side of Building 2601 should be regraded and/or a foundation drain be installed at this location to get water away from the building.

The following pages show a partial floor plan and partial section created to communicate with DGS personnel about probe locations. These are followed by annotated photographs of existing conditions with the missing downspouts highlighted. This report is concluded with Robert Silman Associates' detailed structural evaluation report.

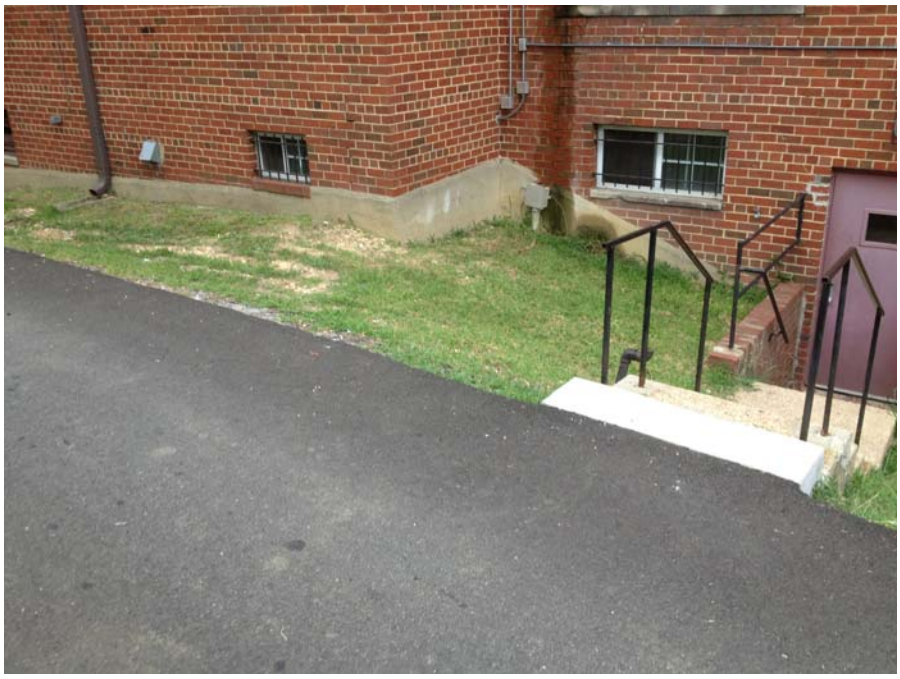
Existing Photo 1: Crack and deterioration at south wall.

Existing Photo 2: Example of missing downspout



Existing Photo 3: General roof conditions

Existing Photo 4: Interior wall dampness and deterioration.



Existing Photo 5: Improperly graded area with basement stairway that fills with rain water

Existing Photo 6: Area to be regraded.