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15 June, 2018

Peter Stolatis
427 Bedford Road
Pleasantville, NY 10570

Re: Structural Assessment of Existing Building – 2018 Update
Hidden Cove Development - 36 No. Water Street
Village of Ossining, NY

Dear Peter:

The following discussion is in regard to the Brandreth Pill Factory campus property in Ossining, NY, for which we conducted a Structural Assessment in August of 2012 on behalf of your organization. Our observations and opinions relating to the assessment were outlined in our Structural Assessment Report dated 10 September, 2012.

I visited the project site yesterday, and the existing office building structure has not yet been demolished. As such I wish to reiterate our opinion stated at the conclusion of the original report. That being, all the structures should have been demolished in 2012. This opinion was formed after inspecting the conditions in August 2012. It is now June 2018, and the remains of the old decaying structure has been exposed to 6 more years of freeze/thaw cycles. The structure should be considered unsafe, and should be completely demolished as soon as possible.

Yesterday's building walkthrough reinforced this opinion as further deterioration was evident throughout the structure. The following are some updated findings:

1. Continued deterioration of roof framing & further damage to brick walls due to roof framing:

a. There is clear evidence of proliferated structural deterioration both outside and inside. Images 1 and 2 depict the state of disrepair of the wood framing. The roof framing is unprotected, and has been exposed to 6 more seasons of freeze/thaw cycles since the last assessment.

Image 1 – Roof Exterior

Image 2 – Roof Interior

Roof sections have failed. Roof rafters and collar ties have further deteriorated, are significantly waterlogged, and structurally deficient.

b. The existing roof framing as constructed would not meet current structural requirements for such a system, and does not meet with NYS Code requirements. The rafters are undersized for the given span, spacing, and loading. The collar ties at alternate rafters are inadequate and too high from the eave, yielding a residual horizontal thrust at the ends which are bearing on the masonry walls, with no capacity in the unreinforced multi-withe brick walls to resist the lateral forces. This in turn has caused the roof framing to 'spread' outward, evident by the increase spread at the roof ridge line (Image 3), and cracking the brick bearing wall (Image 4)

Image 3 – Roof Ridge Separation

Image 4 – Wall Stress Cracks At Ends

2. Continued deterioration of brick walls:

a. Further deterioration of perimeter brick walls was evident throughout. Newly formed cracks were discovered in the same areas which had been previously patched (Image 5). New cracks throughout are demonstrative of continued structural stability deterioration of the walls. Continued deterioration is directly due to ongoing water infiltration washing out of what remains of the mortar joints, further decaying the brick and mortar remnants of the unreinforced walls (Image 6).

Image 5 – New wall cracks

Image 6 – Deteriorated bricks and mortar

3. Restoration or re-location of existing building is not possible:

What remains of the existing structure is beyond the point that it can be restored or salvaged due to excessive deterioration as originally assessed in 2012 and reconfirmed during yesterday's site visit. None of the original materials (brick, wood framing, sheathing, etc.) can be considered suitable to rebuild due to loss of structural integrity. As such, for the same reasons, the building cannot be raised and/or re-located. The remnants of the structure would not survive lifting or moving. Such an effort should not at all be considered due to likely catastrophic collapse risking injury or death.

4. Re-use of old brick for new structural support is not possible:

Re-use of the old remnant bricks to build a new structure will not be possible. Modern construction does not make use of bricks as part of any structural system because of the need to conform to building code requirements requiring the ability for the walls to sustain both vertical and lateral loads (wind and seismic loads) requiring walls to be reinforced. Building reinforced brick walls is not economically viable due to the brick's relatively low strength versus other materials such as hollow core block, steel, concrete, etc. This applies to newly fabricated brick. With respect to old brick, such as that which would need to be salvaged from the old office building demolition, this is even less viable because of its decayed state.

5. Re-use of old brick for aesthetic/commemorative purposes:

While it will be impossible to use the old brick for structural purposes, some bricks can be salvaged and re-used as veneer for commemorative purposes. However, there may not be a significant number of bricks salvageable to achieve any sizeable commemorative element. The best source for salvage may be at front façade near the entrance of the building. This area is partially covered and has relatively less damage than other areas, and may yield some brick for veneer re-use (see Image 7). The size of any commemorative element will be highly dependent on how much of this brick can be salvaged.

Image 7 – Front Entrance Facade

6. Conclusion:

Almost 6 full years have passed since the original assessment report and formulated opinion and conclusion that all the buildings on this site needed to be demolished. Yesterday's site visit re-confirmed this opinion. With 6 more years of continued structural deterioration having taken place, it is imperative that the remaining structure be demolished as soon as possible. The building's structural integrity is significantly compromised and the structure should be considered dangerous and unsafe, per the Village of Ossining Code - Zoning Regulations, Section 270-25 Section K(1). The remaining structure must be approached with caution, including during its demolition.

Sincerely,
De Nardis Engineering, LLC

Joseph A. De Nardis, P.E.