February 4, 2022

Eliza Ho, Title
Tim Lai Architect
401 W Town Street, Studio 233
Columbus, OH - 43215

sent via email: elizaho@laiarchitect.com

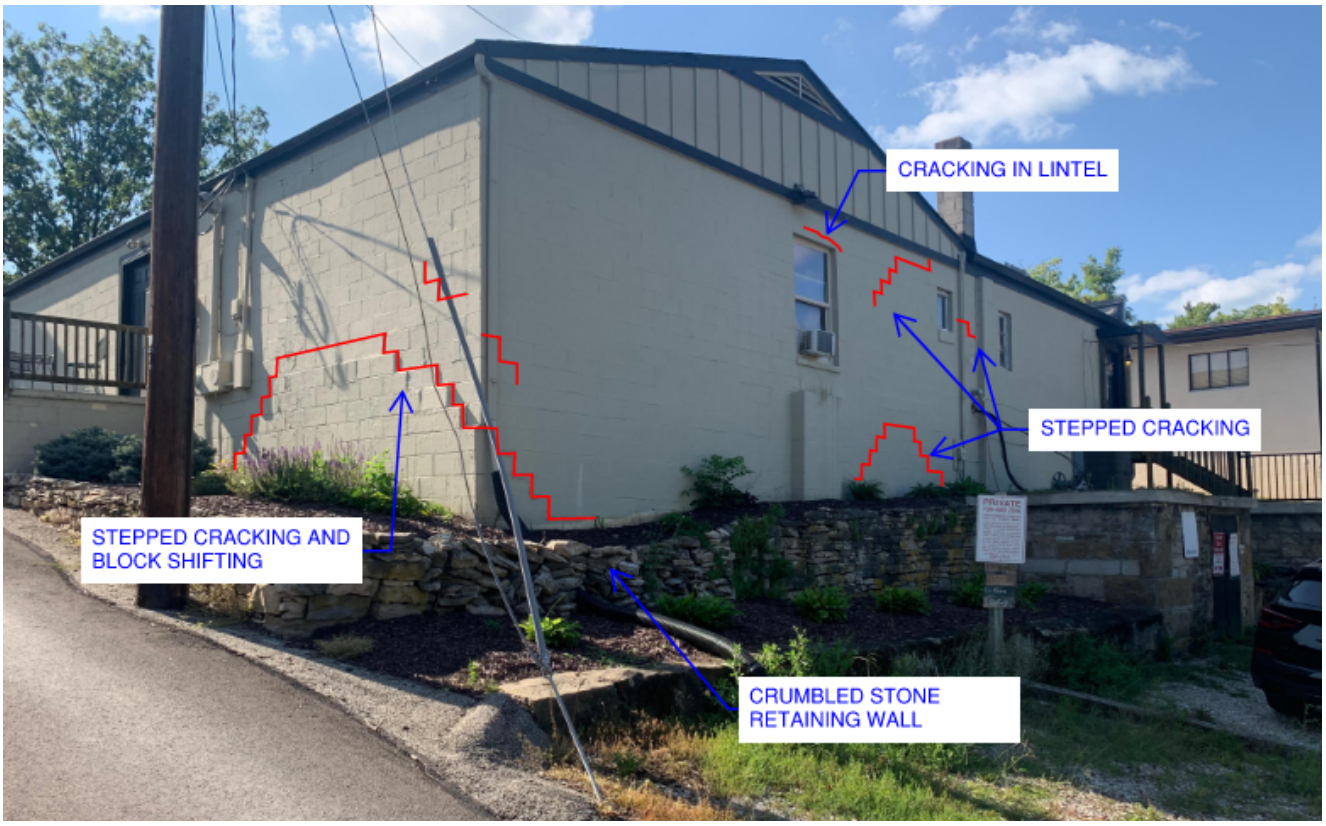
Re: Structural Assessment for 36-38 N High Street , Columbus OH

Dear Ms. Ho:

At your request Osborn conducted a site visit for structural assessment of the aforementioned property on 8/23/21. The structural assessment was performed to evaluate the structural integrity of the current existing structure and its suitability for the proposed redevelopment. The existing building is a one-story concrete block structure having a rectilinear footprint and divided into two tenant units. The south half of the building, 36 N High St, has a gable roof extending over to form a porch over the front façade. The main entrance is on the west side and employee entrance on the south side. The north half of the building, 38 N High St, has a flat roof with the main entrance on the west and employee entrance on the east side. The site slopes down from west to east. At the east end of the building is a historic dry-laid stone retaining wall dated to have been constructed in the late 1800 to early 1900. The remaining portion of the lot is a gravel parking lot. A two-story stone privy constructed in 1934 is located at the rear north side with a stairs to the rear of the building.

Several stepped cracking was observed at the south-east corner and along the east wall of the building. The cracking at the south-east corner in addition to the stepped crack the shifting of the was also noted. The stepped crack is indicative of building experiencing settlement. With the historic stone retaining wall being in close

proximity the settlement of the building can be attributed to the lateral shifting of the soil. The construction of the retaining wall is just dry-laid stone with no binding mortar to it which would limit it lateral strength. The retaining wall was probably design only to retain soil and not building surcharge load and hence the building is under stress due to foundation settlement which could lead more cracking and settlement with time and eventual collapse of wall it is a public hazard and safety concern.



In 2015, the property owner Bob Lombardi commissioned repair work to tie the slab on grade to the block foundation because the interior floor in the south east corner was noticeably sunken. The repair work involved cutting out the damaged slab and doweling rebar 16 inches on center from slab to foundation wall and between new and existing slab. The continuous settlement has contributed to further deterioration of the building and the decay can be seen in the following interior tenant spaces: **Photo 1**, current floor tiles separation; **Photo 2**, cracking of ceiling; **Photo 3**, separation of the base board from the floor; **Photo 4**, cracking of the door frame; **Photo 5**, separation of the partition from ceiling; **Photo 6**, stepped cracking in demising wall. The main issue is the ineffectiveness of the retaining wall to resist the lateral pressure induced by the building dead and live load on it. Since there is no mortar to bind the stones together there will be continued creep slippage between the stones causing foundation settlement and could eventually collapse the wall and structure.

	
Photo 1 – Flooring planks separate about 1/4“	Photo 2 – Ceiling separation about 1/2”

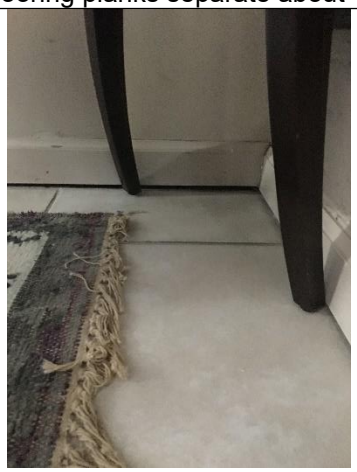



Photo 3 – Base board separate about 3/4"	Photo 4 – Door frame joint separation about 1/4"
	
Photo 5 – Partition separation about 1”	Photo 6 – Stepped cracking in demising wall

The proposed redevelopment is to construct a two-story restaurant or restaurant with offices on top at the front and a two townhome at the rear with a parking lot between them.

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The existing building foundations walls have already been compromised hence adding a second floor would not be possible. The distance between the existing building and the historic wall is too small to accommodate a retaining wall without damaging the historic wall.
The redevelopment would require demolition of the existing structure and building a new structure such that foundations extend down to the same depth as the historic walls there by alleviating any surcharge pressure on it.

Please feel free to contact me at 614-556-4272 (5012) if you have any questions.

Sincerely,

By: Alpesh Chavda, PE
Manager of Structural Engineering | Columbus