



ENGINEERING DESIGN PROFESSIONALS
Consulting Engineers

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November 18, 2015

Mr. Crandall Toothaker
200 High Street
Portland, Maine 04101

RE: Exterior Wall Evaluation for Remodel at
223 Cumberland Ave, Portland, Maine
Project # 02915

Dear Mr. Toothaker:

As requested I have been visiting the referenced building to monitor the ongoing progress of the structure reinforcement project. Other than some minor changes to the foundation system which will be documented in a soon to be provided revision to the plans, everything has been completed properly and as required by the approved plans dated 05-26-2015.

During the progress of the reinforcement project, I made observations of the existing exterior wall framing that concerned me but did not present an immediate danger to the construction crew at the time. This wall framing that was originally supporting the floor systems and roof is under sized and poorly constructed to resist current gravity and wind loading requirements. Fortunately the reinforcement project has removed any gravity loading forces from the walls and provided another system for transferring wind loads to the foundations.

However, the exterior wall system is still in poor condition and even though it only exists as a skin to the building, there is still a concern that over time the materials will degrade and fail under applied wind forces. It was noted that fasteners were rusted, connections were under sized and improperly framed, studs were cut and spliced improperly and openings in the walls were poorly constructed.

In addition, the balloon framing conditions of the original exterior wall will present significant hazard to occupants and Public Safety personnel should a fire event occur. The installation of adequate draft-stopping required to mitigate this condition would be invasive, and essentially require the removal of a substantial portion of the exterior finishes and sheathing in the process.

Wall Evaluation

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I recommend the removal of the original exterior wall system from foundations to the roof framing. As mentioned the original wall system is no longer supporting the floor or roof systems therefore if dismantled from the top down, there should be minimum need for shoring. In addition, the fastening of the plywood wall sheathing that was added during the reinforcement project can be easily completed at the areas along the floor system.

Thank you for this opportunity to be of assistance. If you have any questions concerning this letter please do not hesitate to contact me.

Sincerely;



Larry A. Wichroski, P.E.
Senior Structural Engineer
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