Dalhousie University masonry Research.

This research is to investigate, both experimentally and analytically, the in-plane and out-of-plane behaviour and capacity of masonry infill walls with a focus on the concrete block masonry infills. The main objective of the research is to summarize current and previous research on the subject to a point where constructive recommendations regarding design and analysis applicable to industry practice can be made. As a long-term objective, the experimental and analytical results of the study will be used to establish a set of unified equations and design charts to be considered for inclusion in the Canadian masonry design standard for masonry infill walls.

To date, the compilation of existing experimental and analytical results from literature has been completed. Twenty steel frames with concrete masonry block infills have been tested and results have resulted in two journal and two conference papers. The results showed that the current Canadian design standard significantly overestimates the design stiffness but underestimate the design strength of infills. The resulted design might be conservative for infills but unconservative for other lateral load resisting elements. The implication on seismic behaviour of structures using infills as lateral load resisting system needs to be investigated further.

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