

Accepted Manuscript

Performance-Based Design Procedure of a Novel Friction-Based Cladding Connection for Blast Mitigation

Liang Cao, Sijia Lu, Simon Laflamme, Spencer Quiel, James Ricles, Douglas Taylor

PII: S0734-743X(17)30178-1
DOI: [10.1016/j.ijimpeng.2018.03.003](https://doi.org/10.1016/j.ijimpeng.2018.03.003)
Reference: IE 3077



To appear in: *International Journal of Impact Engineering*

Received date: 5 March 2017
Revised date: 15 November 2017
Accepted date: 10 March 2018

Please cite this article as: Liang Cao, Sijia Lu, Simon Laflamme, Spencer Quiel, James Ricles, Douglas Taylor, Performance-Based Design Procedure of a Novel Friction-Based Cladding Connection for Blast Mitigation, *International Journal of Impact Engineering* (2018), doi: [10.1016/j.ijimpeng.2018.03.003](https://doi.org/10.1016/j.ijimpeng.2018.03.003)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- A novel semi-active cladding connection is demonstrated in passive mode for blast mitigation.
- A 3-step performance based design (PBD) procedure is proposed for the design of this new cladding connection.
- The proposed cladding connection is designed and simulated on a six- story structure exposed to blast loads.
- Simulation results show that the proposed PBD procedure is acceptably conservative.
- It is demonstrated that the proposed cladding connection offers significant reductions of blast-induced story displacements and accelerations.

Download English Version:

<https://daneshyari.com/en/article/7172928>

Download Persian Version:

<https://daneshyari.com/article/7172928>

[Daneshyari.com](https://daneshyari.com)