

## Technical Review Board Memorandum

**Date:** January 31, 2017

**Issue:** **Retrofit of School Doors for Potential Door Jamming  
in a Seismic Event (For Single Doors)**

### **Discussion:**

Further to the TRB memorandum dated January 29, 2016, UBC's Earthquake Engineering Research Facility (EERF) has completed a series of door jamming tests for a single door configuration in a seismic event.

The technical conclusion arising from this series of single door tests is that modification of the strike plate slot is the best retrofit option for reducing the potential for door jamming in a seismic event.

The proposed door strike plate modification is illustrated in Figure 1. Features of these retrofit details are as follows:

- slot in the strike plate is elongated vertically such that the slot clearance above and below the latch is not less than 32 mm;
- Figure 1 modification only applies to single doors;
- no trimming of the top or bottom of the door is required.

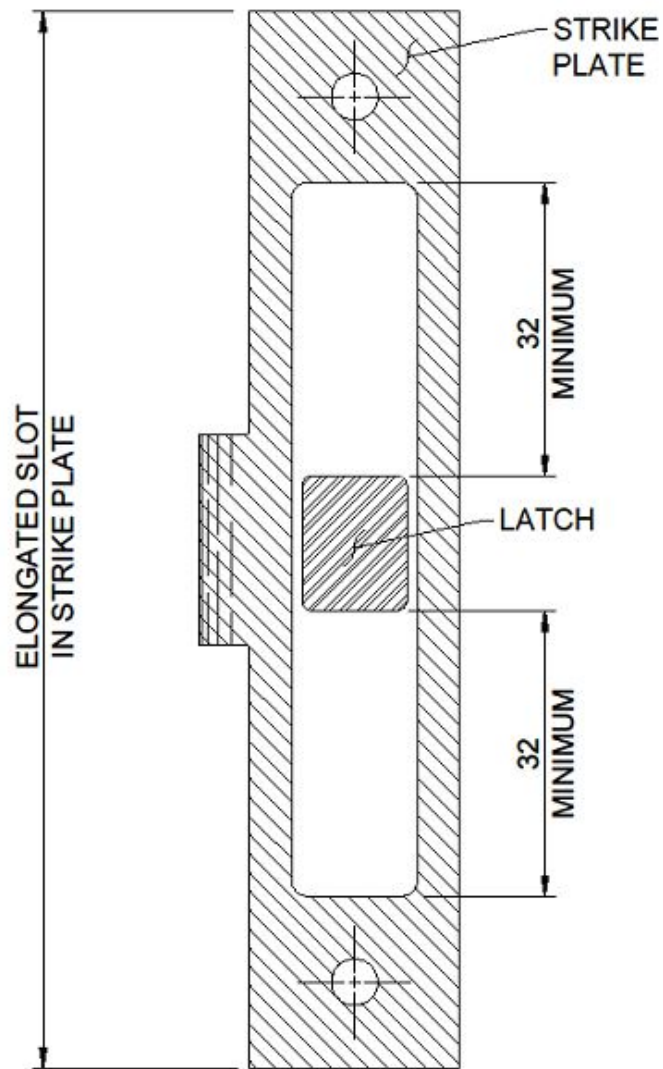
It is anticipated that testing of door jamming for a double door configuration will be conducted at the EERF in 2017.

### **Recommendation:**

It is recommended that all school single doors, whether wood or steel doors, be modified to conform to the detail given in Figure 1 to reduce the potential for door jamming in a seismic event. This door modification requirement applies to all single doors in the first storey and to all single doors in the storeys above the first storey.

It is further recommended the rates described in the January 29<sup>th</sup> memo be retained for budgeting purposes.

An update for door jamming of double doors is anticipated in 2017.



**Figure 1: Strike Plate Slot Details  
for Potential Door Jamming  
of School Single Doors**