

**Table 1. Adopted fragility and consequence function for structural components**

Component	Fragility Functions			Repair/replacement cost (in USD)		
	DS1	DS2	DS3	DS1	DS2	DS3
RBS connections <= W27 one-sided	0.0067 (0.4) <sup>2</sup>	Lignos et al. (2010), DS4	Lignos et al. (2010), DS5	10,300 (0.4) <sup>1</sup>	17,400 (0.310) <sup>1</sup>	29,300 (0.310) <sup>1</sup>
RBS connections <= W27 two-sided	0.0067 (0.4) <sup>2</sup>	Lignos et al. (2010), DS4	Lignos et al. (2010), DS5	18,300 (0.4) <sup>1</sup>	30,000 (0.310) <sup>1</sup>	52,300 (0.310) <sup>1</sup>
RBS connections => W30 one-sided	0.0067 (0.4) <sup>2</sup>	Lignos et al. (2010), DS4	Lignos et al. (2010), DS5	10,300 (0.4) <sup>1</sup>	18,400 (0.310) <sup>1</sup>	32,400 (0.310) <sup>1</sup>
RBS connections => W30 two-sided	0.0067 (0.4) <sup>2</sup>	Lignos et al. (2010), DS4	Lignos et al. (2010), DS5	18,300 (0.4) <sup>1</sup>	32,000 (0.310) <sup>1</sup>	58,500 (0.310) <sup>1</sup>
Steel column base	B1035.022, DS1	B1035.022, DS2	B1035.022, DS3	B1035.022, DS1	B1035.022, DS2	B1035.022, DS3

<sup>1</sup>These are cases where the median values were obtained from the consequence estimation tool spreadsheet, and the dispersion were obtained from PACT where available or assumed to be 0.4

<sup>2</sup>It is assumed that connections have a 25% probability of being inspected upon the onset of partitions incurring damage state 2. These values were obtained from Retamales et al (2013).

### **References**

Lignos DG, Kolios D, and Miranda E. (2010). "Fragility assessment of reduced beam section moment connections". *Journal of Structural engineering*, **136**(9): 1140-1150.

Retamales R, Davies R, Mosqueda G and Filiatrault A (2013). "Experimental seismic fragility of cold-formed steel framed gypsum partition walls". *Journal of Structural Engineering*, **139**(8): 1285-1293.