**Supplementary Figure 1**: Processing of the vertical component of strong motion data recorded by the GeoNET KIKS station. Time (s) refers to seconds after 13th Nov. 2016, 11:02:56 UTC. Top panel shows the uncorrected raw data. The vertical blue lines indicate the start and end time used for the calculation of static displacement following Wang et al. (2011). The starting window length is set to include enough data points to perform a stable pre-event correction; the end window is set after the attenuation of heavy shaking, when static displacement reached a stable value. The middle and bottom panel show the velocity and displacement seismograms, derived from the corrected acceleration and velocity record, respectively. The red lines in the background of these to plots represent the automatically applied trend corrections, which are much smaller than the amplitudes of ground motion.