

RAA Sinking Pit Cover Assessment

Road being assessed: Hampstead Road

Direction and number of lanes tested: Northbound and Southbound, 4 Lanes total.

Date of assessment: 20-12-2017

Total covers assessed: 50

Total covers exceeding comfort benchmark: 7



Pit covers at the intersection of Lorraine Ave

RAA visually inspected all covers that exceeded our calculated comfort benchmark and removed false readings and pit covers that we did not believe to be SA water assets from the list.

Below is the list of 7 SA Water pit covers that recorded a high G-Force reading and had visual defects. Where possible we have included whether the cover appears to be a water or wastewater cover and included the possible SA Water ID.

| Location Description | Possible SAW ID | W/WW | Latitude | Longitude | Direction/Lane |
|-----------------------------------|-----------------|------|--------------|-------------|----------------|
| 5m N of North East Road | | W | -34.88408667 | 138.6199017 | NB LH |
| #4 Hampstead Road | | W | -34.88344833 | 138.6198533 | NB LH |
| #8 Hampstead Road | | W | -34.883145 | 138.619836 | NB LH |
| Intersection w/ Collingrove Ave | | W | -34.88017835 | 138.6196317 | NB LH |
| Intersection w/ Grand Junction Rd | | W | -34.84728335 | 138.6173 | NB LH |
| Intersection w/ Lorraine Ave x2 | 3351881/3351897 | W | -34.879074 | 138.619710 | SB LH |

Please see attached .csv file "Hampstead Road Covers.csv" using WGS 84 coordinate system for geocoded locations for use in GIS software.

Note: RAA have calculated a benchmark comfort G-Force of 0.045G in our test vehicle (2015 Subaru Forester) based on averaging the G-Force of multiple runs over a singular pit cover approximately 50mm deep that was perceived to be uncomfortable when crossed. A verification exercise has been conducted that suggests an error rate of approximately 18% due to road roughness in the vicinity of a pit cover.