CONSULTANT ARBORIST MEMO

Date: 7th Dec 2020

Client: AC Avondale Scheduled Macrocarpa

Location: 1817Great North Road

Reference: Discovery of substantial crack

GREENSCENENZ
ENHANCING AND PROTECTING LIVING ENVIRONMENTS

Summary

During a post-VTA a resistograph assessment was carried out, during the closer climbing inspection a substantial crack at the main union was discovered which has compromised the long term viability of a stem inclined towards Ash Street (SH9)

Visible Crack Discovery

Photograph 1: Approximate location and extent of visible crack

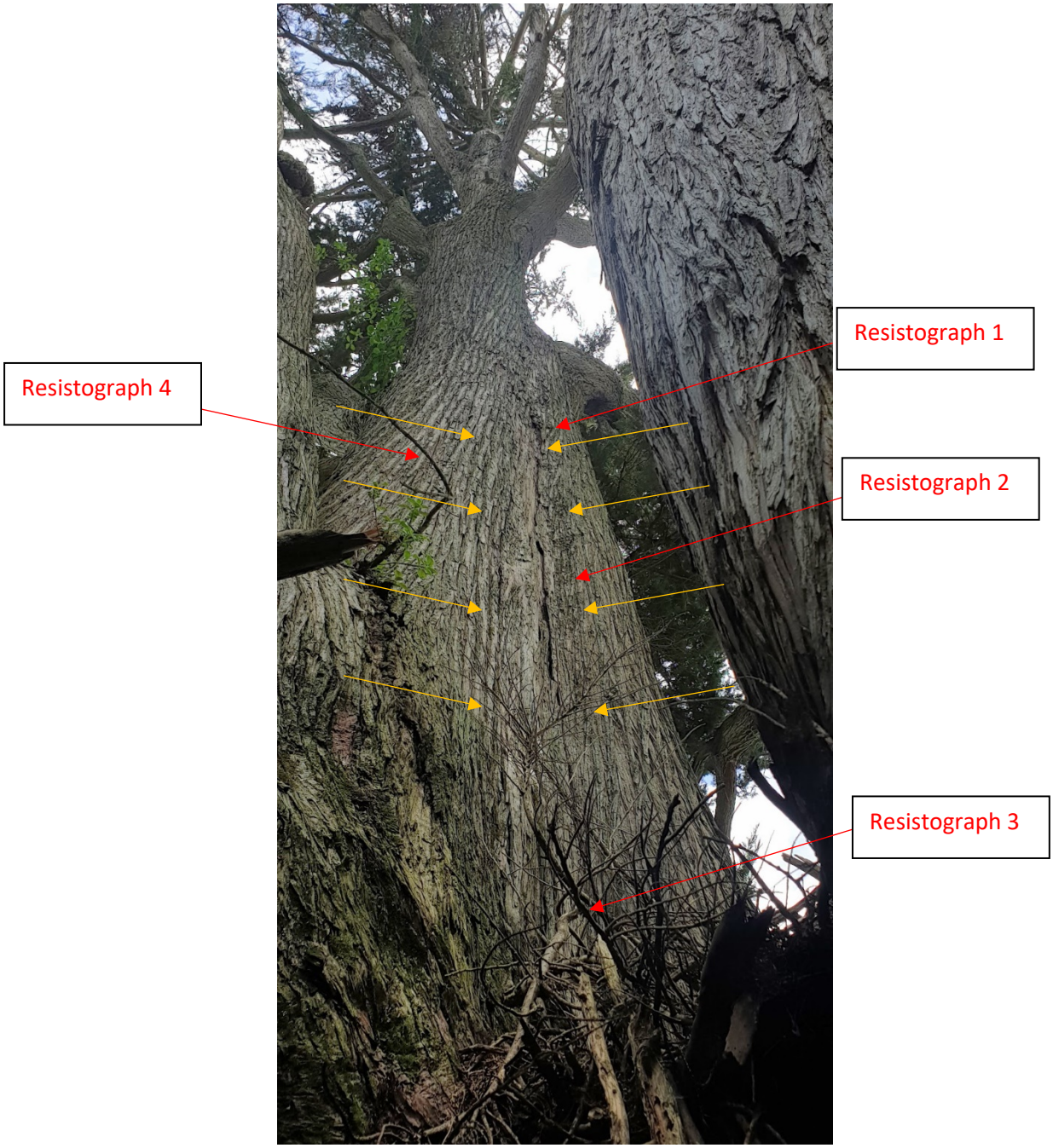
Date of inspection: 4th December 2020

Inspected by: Two consultant arborists

See appendix 1 – Visible Crack Detail

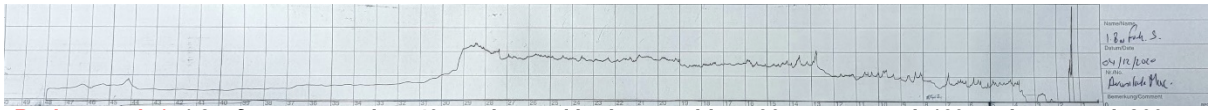
Resistograph Preliminary Results

The main dominant stem which has suffered storm damage was resistographed as it was exhibiting a lower stem bark depression stretching from the union approximately 5m to the first branch union.

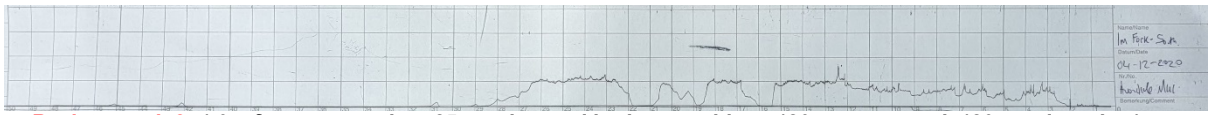


Photograph 2 Zone of bark dysfunction, area of resistograph investigation.

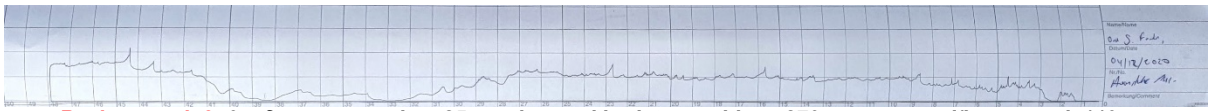
The total diameter of the stem is an estimated 1100mm the resistograph measures the resistance of the wood up to 500mm depth. Below are the results from four drills with approximate dimensions indicating boundaries bark/sapwood/heartwood.



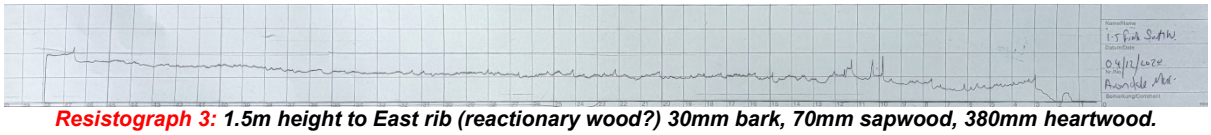
Resistograph 1: ***1.8m from stem union: 40mm decayed bark to cambium, 90mm sapwood, 160mm heartwood, 200mm hollowing.***



Resistograph 2: ***1.0m from stem union: 25mm decayed bark to cambium, 120mm sapwood, 120mm decaying/poor resistance heartwood, 220mm hollowing.***



Resistograph 3: ***0m from stem union, 25mm decayed bark to cambium, 270mm sapwood/heartwood, 110mm decay/hollowing, 80mm heartwood.***



Resistograph 3: ***1.5m height to East rib (reactionary wood?) 30mm bark, 70mm sapwood, 380mm heartwood.***

It appears that there is a zone or a pocket of hollowing within the main stem associated with the strip of bark dysfunction which could described as a canker. Combined with the recent storm damage of the upper canopy it seems more likely that the macrocarpa has been subjected to cankering for some time, leading to branch weaknesses. Although the effects of the Seiridium canker are thought to act slowly on more mature trees, this strip of decay indicates that the canker has been acting for a significant amount of time already. However the species is still to be identified by MPI.

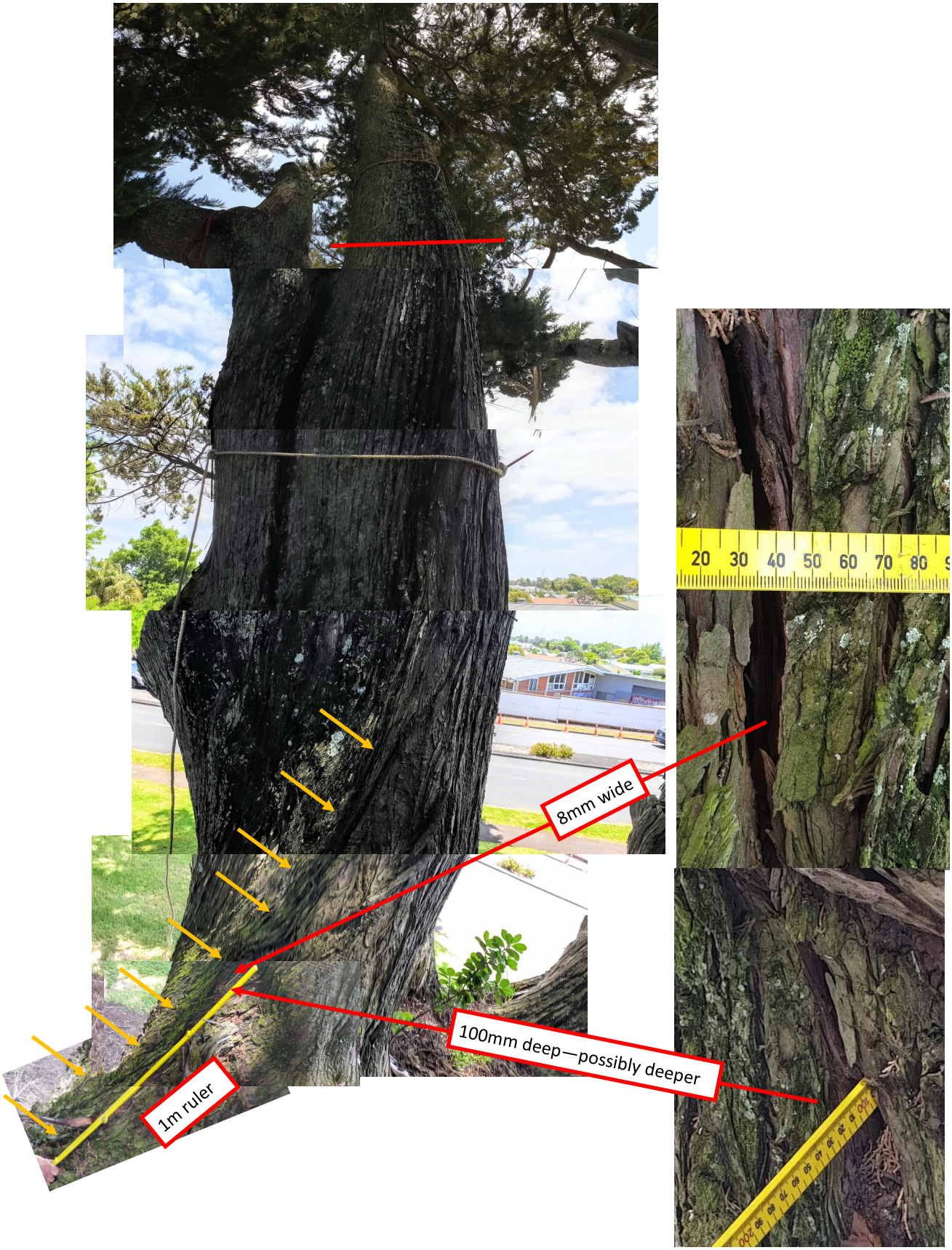
APPENDIX 1

Discovery of visible crack approximately 3m long—8mm wide-100mm deep 4th December 2020

Reduce large stem so total failure does not reach State Highway and footpath.

Retain as much as reasonably possible.

Recommend fencing off dripline zone and no mow zone to deter people entering the area.



Reduce stem to most appropriate height to reduce the likelihood of hitting the SH and Footpath. This may off balance the tree and further pruning reductions may be required on the lower canopy. Approx. 22m stem, total failure would reach across to central reservation over two carriageways.

Please consider Knock on risk after stem removal.

Second stem (pink arrow) is partly connected to the removed stem with crack, contractors to assess, seek advice and possibly alter scope before leaving site, to make certain tree works is successful in lowering residual risk.