

**BEFORE COMMISSIONER DAYSH APPOINTED BY NEW PLYMOUTH DISTRICT COUNCIL**

**UNDER**

the Resource Management Act 1991 ("RMA")

**IN THE MATTER**

of an application under section 88 of the Act by **KD HOLDINGS LTD** to the **NEW PLYMOUTH DISTRICT COUNCIL** for land use consent application to construct a six-storey mixed use building and remove a notable tree at 45, 49 and 51 Brougham Street and 33 Devon Street West, New Plymouth.

**STATEMENT OF EVIDENCE BRUCE MACDONALD ON BEHALF OF KD HOLDINGS LTD**

**1. INTRODUCTION**

- 1.1 My full name is Bruce MacDonald.
- 1.2 I am an arboricultural specialist and hold qualifications; Diploma Arboriculture / NC Arboriculture L4 Advanced / Otago School of Arboriculture (Honours) / International Society of Arboriculture Tree Risk Assessment Qualification / QTRA Exp. ISA Cert Arb exp.
- 1.3 My experience includes 25+years. I have worked as both an operational council arborist and arboricultural officer.
- 1.4 As an independent arborist I have worked for numerous councils as a consultant specialising in arboricultural asset management and tree risk assessment.
- 1.5 I am currently the Quality and Compliance manager for Asplundh NZ, and senior arboricultural advisor.
- 1.6 I am a past president of the New Zealand Arboricultural Association having served 10 years as an executive member.
- 1.7 This evidence is given in support of the land use consent application ("the application") lodged by KD Holdings Ltd ("the applicant"), to construct a six-

storey mixed use building and remove a notable tree at 45, 49 and 51 Brougham Street and 33 Devon Street West, New Plymouth.

1.8 I am authorised to give this evidence on behalf of the applicant.

## **2. INVOLVEMENT IN THE PROJECT**

2.1 My involvement in the application/request has included:

(a) The preparation of an arborist report dated 19/09/2019 (included in the application as Appendix E) that focusses on sustainability of the protected *Agonis flexuosa* (Willow Myrtle). This assessment was carried out according to concept plans provided by BOON architects. This assessment primarily includes the assessment of development in location to the tree and the adverse effects of the activity on the protected tree.

(b) Further information was provided in my report dated 16/11/2020 (included as Appendix B in the applicant's further information request response dated 20 January 2021).

2.2 I have also reviewed the material produced with the application, including the application and assessment of environmental effects dated 04 September 2020 and the section 92 RMA response dated 20 January 2021.

## **3. CODE OF CONDUCT**

3.1 I confirm that I have read the Code of Conduct for expert witnesses contained in the 2014 Environment Court Practice Note and that I agree to comply with it. I confirm I have considered all the material facts that I am aware of that might alter or detract from the opinions I express. In particular, unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

## **4. PURPOSE AND SCOPE OF EVIDENCE**

4.1 In this matter, I have been asked by the applicant to provide comment on the sustainability of the tree in relation to the proposed development.

4.2 This assessment was carried out in line with arboriculture best practice as outlined by the International Society of Arboriculture and endorsed by the New Zealand Arboricultural Association.

- 4.3 Although I have not specifically assessed the subject tree against the Proposed District Plan, I have read the relevant provisions and consider that the assessment and evidence covers the applicable matters relating to maintenance, modification and removal of protected trees. The evidence outlined below is extrapolated from my arboricultural report dated 19/09/2019 and additional information report dated 16/11/2020. Also included are comments on observational evidence post producing of my reports.
- 4.4 I confirm that I have read the submissions on the application and the Council Officer's Report. The assumptions, assessment and conclusions set out in my Arboricultural Reports (19/09/2019 and 16/11/2020) remain valid.
- 4.5 Except where my evidence relates to contentious matters, I propose to only summarise the conclusions set out in my expert technical reports.
- 4.6 My evidence is structured as follows:
- (a) Summary (Section 5);
  - (b) Council Officer's Report (Section 7);
  - (c) Proposed conditions of consent (Section 8); and
  - (d) Concluding comments (Section 9).

## **5. SUMMARY**

- 5.1 The key arboricultural related issues in my opinion are:
- (a) The identified adverse effects that the development will have on the health and structure of the subject tree.
  - (b) The estimated longevity of the tree in its current condition.
- 5.2 By way of a summary, my detailed analyses and assessments from onsite inspections, observations, including root exploration, consultation with peers and independent research enable me to confidently conclude that:
- (a) Should the proposed development be carried out as outlined within the concept design, the tree will be adversely affected structurally, and the development is likely to hasten the decline of the tree due to root disturbances. An exploratory excavation within the car park above the root flare on the west side of the tree stem (7 September 2019) concluded the presence of feeder roots and anchoring roots

within the top 1.0m of the ground surface. Should these roots be severed or damaged, there is heightened likelihood of complete tree failure at ground level due to the severing of cable-anchor roots. The severing or damaging of these roots will interrupt an important supply of water and nutrients to the tree necessary for continued sustenance.

- (b) The current health condition of the tree is good, but it is now in slow decline. This decline is evident through observations of the subject tree and other known *Agonis flexuosa* species within the locality that determine the tree is losing vigour. Chronological photographic comparisons of the subject tree depict a thinning canopy that is indicative of a tree in decline. This decline is confirmed by observing branch dieback within the trees upper canopy when viewed from the top floor of the council's Down-town carpark adjacent to the application site. This decline is evident when compared to the younger healthier and more vigorous self-seeded *Agonis flexuosa* growing immediately beneath the subject tree. Given this evidence, it is my opinion that the subject tree has now entered the life cycle stage of decline. When compared to other tree species of similar stature, when *Agonis flexuosa* reach maturity and senescence, irreversible decline can be rapid starting with supporting stems and laterals, such as the example of large *Agonis flexuosa* on the lawn frontage of the New Plymouth courthouse entrance and numerous *agonis* street trees within the district. The species is known to grow sucker growth from large surface roots, although this is rare and generally results from damaged surface roots due to lawn mower damage (street trees). This was explored and dismissed by simply pulling up the smaller *agonis* beneath the subject tree confirming non-attachment to the parent tree, and verifying that the smaller trees beneath the subject tree are self-seeded *agonis*.
- (c) Mature *Agonis flexuosa* are susceptible to internal decay and large-part failure. As a rapidly growing and short-lived species, they do not effectively minimise the spread of internal decay. Detrimental fungal pathogens can quickly degrade sound wood fibres causing entire stem failure. An *Agonis flexuosa* of similar size and age growing on the frontage of Sir Victor Davies memorial garden (opposite side of road from the subject tree) recently succumbed to large-part failure due to the advanced onset of decay and was subsequently required to be removed.

- (d) The most recent Notable Trees Report assessment carried out in early 2018 for the subject tree (DP Item 97) was scored at 57. This is at the low end of assessment score range for a tree to be considered notable. It is noted that when the latest assessment was carried out, the tree was given the lowest score for life expectancy (1) being 1 – 30 years. This report also notes ground stability concerns as the tree matures. It is my opinion that should the tree be reassessed for current notable status, it would not meet the required score when assessed against the criteria.

## **6. THE APPLICATION**

- 6.1 Details of the application are well described in the evidence of others and the section 42a report and I agree with this description and do not require to provide clarification and/or additional information.

## **7. COUNCIL OFFICER REPORT**

- 7.1 I have reviewed the section 42A Report for the application as well as the Technical Arborist Report Agonis Flexuosa DP Item 97, NPDC Arborist, Joshua Paice, 2 February 2021 (included in the Officer's Report) with which I generally agree.

- 7.2 I do however raise the following particular matters within my field of expertise in response:

- (a) There is no evidence the tree was planted. Contrary to this, the location and form of the tree suggests it may be self-seeded. This is because the location of the tree's base - growing out of an embankment - is inconsistent with normal planting practice. The growth pattern at the base is consistent with a tree that has established on an embankment in my opinion.
- (b) The upright form of the tree is a result of limited growth space in early development due to the close proximity of a large building (since removed) on the western side of the tree. This prevented the lateral branch development and promoted upright growth.

## **8. PROPOSED CONDITIONS OF CONSENT**

- 8.1 There are no proposed consent conditions relevant to my expertise that I need comment on.

## **9. CONCLUSION**

9.1 My evidence has assessed the two matters that I am aware of in relation to my expertise and the application and I can safely conclude that:

(a) The proposed development concept design will need to be significantly modified to ensure the continued health and structure of the notable *Agonis flexuosa*. The current design adversely impacts on the root system of the tree that will cause:

- Root anchoring stability concerns that may result in complete root ball failure. This failure will likely cause the partial collapse of the retaining wall from which it grows;
- Severed roots will accelerate the deterioration of a tree that is already in decline. The location of the proposed building is such that numerous feeder roots will be damaged to the extent that adequate water and minerals (nutriment) will not sustain the tree within in the short to medium term.

9.2 It is my opinion that based on gathered evidence, known species characteristics and local observations, peer consultation and research, the subject *Agonis flexuosa* is in the later stages of its lifecycle.

**Bruce MacDonald  
Asplundh NZ**

**10 February 2021**