ARBORICULTURAL ASSESSMENT –PŪMANAWA – DOWNTOWN WEST DEVELOPMENT

PREPARED FOR: Precinct Properties New Zealand Limited

CC. RCP

PREPARED BY: Matthew Paul

DATE: 29.07.24

1.0 Summary

- 1.1 Peers Brown Miller Ltd (PBM) has been engaged by Precinct Properties to provide an arboricultural assessment of the proposed re-development of the existing downtown carpark complex. The proposed development includes the demolition of the existing Downtown Carpark building (together with the Lower Hobson Street pedestrian bridge and Customs Street West vehicle ramp located within part of the road reserve) and redevelopment of the Site to provide for a mixed-use precinct providing for commercial, residential, retail, food and beverage and civic uses.
- 1.2 The redevelopment involves 3 podium buildings, 2 towers and 6 levels of shared basement, including new public spaces and a new laneway network to provide connectivity within the city centre. In addition, the proposed development involves modifications to the podia of existing adjacent buildings (HSBC and AON) to facilitate the new laneway network.
- 1.3 Protected trees and vegetation affected by the demolition works have been assessed as part of the Arboricultural Assessment prepared by PBM titled 'ARBORICULTURAL ASSESSMENT DEMOLITION OF THE DOWNTOWN CARPARK BUILDING' dated 10.04.24 and is included as Appendix A. As the demolition works also form part of this application, this assessment needs to read in conjunction with the demolition works assessment in Appendix A. The purpose of this assessment is to assess the effects on trees and vegetation for the new development only.

2.0 Affected Trees

- 2.1 Based on a review of the proposed plan sets versus the legal boundary of the buildings to be re-developed, it is determined that no protected or publicly owned trees are directly affected by the proposed redevelopment.
- 2.2 As detailed in Appendix A of this report, works affecting trees will occur as part of the demolition phase only, with no additional effects anticipated as part of the construction phase. All trees and vegetation to be removed or modified as part of construction stand within the legal boundary of the site and as such do not require further assessment from a resource consenting perspective.

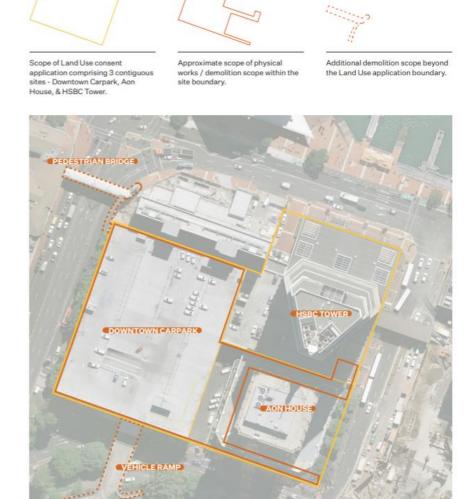


Figure 1 – Scheme Plan showing extent of works for each phase prepared by Warren and Maloney Architects (22 July 2024).



Figure 2 – Legal boundary extents taken from the Auckland Council GIS viewer

Please contact me if clarification of any aspect of this assessment is required.

Matthew Paul Director

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Appendix A

Demolition Arboricultural Assessment



ARBORICULTURAL ASSESSMENT – DEMOLITION OF THE DOWNTOWN CARPARK BUILDING

PREPARED FOR: Precinct Properties

CC. RCP – Bianca Hurrell

PREPARED BY: Matthew Paul

DATE: 10.04.24

1.0 Summary

1.1 Peers Brown Miller Ltd (PBM) has been engaged by Precinct Properties to provide an arboricultural assessment of the proposed demolition of the Downtown Carpark Building (2 Lower Hobson Street, Auckland Central).

1.2 In summary, six (6) street trees or groupings of trees are growing adjacent to structures proposed for demolition, with pruning anticipated for one (1) of the five individual trees and removal of an existing garden area proposed as part of the demolition works. The location of these trees or groups is summarised below.

2.0 Affected Trees

- 2.1 A list of trees within the project area is provided in this section. Further technical information is also provided in Appendix A of this report.
- 2.2 <u>Tree 1</u> -Tree 1 is identified as a recently relocated Pohutukawa (*Metrosideros excelsa*) growing immediately to the north of the Lower Hobson Street Air Bridge. This tree can be retained and will not be affected based on the Crane setup location detailed in Point 'e.' of the provided demolition sequencing plan. Tree Protection Fencing will be required.
- 2.3 <u>Group 1a</u> Group 1a is identified as an area of low vegetation coupled with two (2) Lancewood (*Pseudopanax crassifolius*). This vegetation is growing in a formal street garden. As part of the proposed works, this garden area is proposed for removal, to enable an alternative entrance to the adjoining M Social Building (196/200 Quay Street).

- 2.4 <u>Tree 2</u> Tree 2 is identified as a Chinese Poplar (*Populus chinensis*) tree growing on Sturdee Street to the southwest of the existing carpark building. A large limb has recently been removed by Auckland Council growing towards the building, which has provided adequate clearances for the demolition works.
- 2.5 <u>Tree 3</u> A mature Queensland Box (*Lophostemon conferta*) tree growing immediately west of the Fanshawe Street Vehicle exit ramp, on Sturdee Street. Based on the proposed demolition plan, this tree can be retained and will not be affected provided the existing bridge can be demolished and loaded onto trucks located to the west. Clearance pruning is anticipated, with a clearance of up to approximately 3.0m is possible when considering no more than 20 per cent of live growth may be removed in any one calendar year, as a permitted activity under Standard E17.6.1 of the Auckland Unitary Plan. Branch severance must be limited to limbs no larger than 100mm in diameter.

Works will also be proposed within the tree protection zone (TPZ) of this tree as part of the removal of the existing ramp foundation. Further assessment for this specific activity is detailed in Section 3.0 of this report.

- 2.6 <u>Tree 4</u> Tree 4 is growing immediately west of Tree 3 and is identified as a Pin Oak (*Quercus palustris*). While not directly impacted by the demolition works, it is possible that some crown lifting of the tree's canopy would be required for over height machinery along with loading and unloading of demolition trucks. All pruning cuts are to be limited to branches no larger than 50mm in diameter, with canopy removal limited to no greater than 15%.
- 2.7 <u>Tree 5</u> Tree 5 is a She Oak (*Casuarina cunninghamiana*) tree growing on Fanshawe Street to the east of the Vehicle Ramp. Works are possible to the west of the tree as part of the demolition of the pedestrian bridge exit, which is located to the southwest of the tree, near the Fanshawe street carriageway. No pruning or earthworks are anticipated beyond the removal of the ramp structure, as the existing footpath will remain, with the existing concrete piles uplifted and re-surfacing then undertaken.
- 2.8 <u>Australian Umbrella trees adjacent to the building</u> As illustrated on the topographical plan of the existing site, the existing Australian Umbrella trees (*Schefflera actinophylla*) trees planted adjacent to the building stand in planter boxes that are within the private property boundaries. As such, they are not subject to protection.



Figure 1 - Tree Location Plan

3.0 Proposed Removal of Group 1a

- 3.1 As noted in Section 2.0, Group 1a is proposed for removal to facilitate the temporary alternative access for the MSocial rear entry. It is recommended that the two Lancewood trees are temporary uplifted and stored at an offsite location for the duration of the works and then replanted following the completion of the demolition works. This activity is to be undertaken by a specialist transplant contractor, to be approved by the works arborist. The low ground cover species can be replaced with new specimens on a like for like basis at re-instatement.
- 3.2 Following the re-instatement of the garden, the new or relocated plants are to be maintained for a period of one year. If any plants fail within this period, they are to be replaced with new specimens of a similar size.



Figure 2 - Group 1a proposed for removal/relocation

4.0 Works affecting Tree 3

Proposed Pruning Works - Tree 3

- 4.1 A marked-up image is provided below to illustrate the anticipated pruning of Tree 3 to enable the demolition of the Fanshawe Street ramp. The extent of pruning is estimated at 15% (2.5m from the bridge structure) of the tree's canopy and as such would be assessed as a permitted activity, provided branch severance is limited to limbs up to 100mm in diameter.
- 4.2 It is recommended that all pruning works are undertaken by an Auckland Council approved qualified Arborist, under the direction of a suitably qualified works arborist.



Figure 3 – Anticipated Pruning Locations to enable the 2.5m of clearance.



Figure 4 – GIS Image showing anticipated clearance extent.

Proposed Footing Demolition Works

- 4.3 As previously mentioned, the demolition of the existing vehicle exit bridge is proposed as part of the works. These works would involve the removal of the concrete footing location to the south of Tree 3. The footing is approximately 3.2 metres in length and 350mm in width, with the northern edge of the footing located 11.2m from Tree 3.
- 4.4 It is anticipated that this footing would be removed from either the adjacent carriageway to the north or from the maintenance access located to the east of the vehicle ramp. No earthworks are anticipated nearer to Tree 3 within the existing garden area. In order to ensure this is the case, it is recommended that protective fencing is installed as close to the footing as practical for the duration of the demolition works. The location of this fencing is to be discussed and approved by the works arborist on site prior to the demolition works commencing.

<u>Calculation of Anticipated Root Zone Disturbance – Auckland Unitary Plan and AS4970 – 2009 Standard.</u>

4.5 The existing footing sits outside the measured protected root zone (PRZ) and Tree Protection Zone (TPZ)/ Structural Root Zone (SRZ), as outlined in the table below.

Tree Number	Species	Biometrics	PRZ	TPZ/SRZ
Tree 3	Lophostemon	Height – 12m	8.5m	TPZ – 9.4m
	conferta	Girth – 2.47m @		SRZ – 3.0m
		1.4m (DBH 0.78)		

4.6 As discussed in the previous section, the existing footing to be demolished is located 11.2m from Tree 3 and as such is not located within either the TPZ or PRZ of this tree. As such fencing and the recommended tree protection measures outlined in Section 4.0 afford the tree adequate protection for the duration of the demolition works.

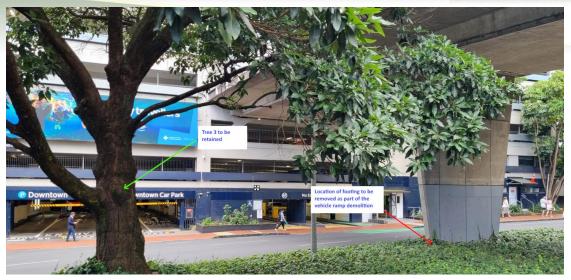


Figure 5 – Location of Tree 3 vs the existing vehicle exit bridge.

5.0 Recommended Tree Protection Measures

This section outlines a set of appropriate works methods and tree protection measures that should be adopted and put in place to ensure that adverse effects on the trees being retained within the project area are minimised and/or avoided.

5.1 Prior to any works commencing on the site in the vicinity of the street and park trees, a meeting should be held at the site to discuss all issues pertaining to the protection of the tree and to gain a common understanding of the relevant conditions of consent in that regard.

Present at the meeting should be;

- The consent holder
- The site foreman or project manager
- The worksite supervisory arborist
- Any other relevant personnel
- 5.2 No excavations are to be undertaken within the protected root zones of the vegetation as part of the demolition works, as all hard surfaces or foundations are beyond the canopy of the identified trees. If any alterations are required, further advice must be sought from the works arborist.
- 5.3 Protective fencing shall be installed at an appropriate alignment on the edge of the root zone, under the guidance of the appointed works arborist. This fencing shall be installed at the edge of the root zone where practicable.

- 5.4 The fencing shall remain in place for the duration of the project in order to best protect the subject trees. The fencing is to be rent-o-style 1.8 metre steel mesh sections. The location of this fencing is to be confirmed and approved at the pre-commencement meeting.
- 5.5 All pruning works are to be undertaken by a Council Approved Arborist under the supervision of the works arborist. The pruning is to be recorded and added to the completion log.
- 5.6 Compliance with all conditions of consent relating to tree protection would be monitored by the appointed works arborist with the detail of each visit and communication being logged. The completed log would be provided to the consent holder at the completion of the project to serve as a compliance report.

6.0 Conclusion

6.1 This assessment is intended to provide a summary of the anticipated activities affecting Council owned trees as part of the proposed Downtown Carpark demolition project. In summary, the following works will impact trees within the project area.

The proposed removal of two (2) Lancewood trees (Group 1a) as part of the demolition works – to be assessed as a Permitted Activity

The proposed pruning of Tree 3 to enable suitable clearance for the demolition of the vehicle exit bridge structure in accordance with Standard E17.6.1 – to be assessed as a Permitted Activity

Please contact me if clarification of any aspect of this assessment is required.

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Appendix A

Tree Details



App	Appendix 1 – Tree Schedule								
ID #	Species	Height (m)	Canopy Spread Radius (m)	Diameter @ 1.4m (mm)	Tree Protection Zone or TPZ (m)	Structural Root Zone or SRZ (m)	Comments/Condition		
1	Pohutukawa Metrosideros excelsa	8.0	8.0	716	8.5	2.4	Tree growing within planter, surrounded by concrete. Moderate condition/vigour in canopy. Tree is recent transplant candidate so no roots anticipated towards the bridge pier structures to be removed. Protective fencing recommended. Deadwood in the canopy and some dieback at time of visit (March 2024).		
1a	Lancewood x2 Pseudopanax crassifolius Carex sp. Astellia sp.	3.5,3.3	<1.2	76 & 74	N/a	N/a	Fair condition. Growing in garden area with ground cover underplanting. Proposed for removal to enable the alternative entry to MSocial for the works. Reinstatement required post demolition completion.		
2	Chinese Poplar Populus chinesis	16	15+	764	9.2	3.0	Good condition. Recent pruning has enabled adequate clearance for Demolition Works. No works near this tree anticipated.		
3	Queensland Box Lophostemon confertus	15	8.5	786	9.4	3.0	Good condition. Pruning proposed to enable vehicle exit ramp demolition. Protective fencing proposed for the duration of works. Rootzone works beyond TPZ/PRZ.		
4	Pin Oak Quercus palustris	15	12	N/a	N/a	N/a	Standing to the west of Tree 3. Not immediately impacted but needs to be considered during the works. Ensure protective fencing if area used for demolition.		
5	She Oak Casuarina cunninghamiana	22	15	1146	13.8	3.3	Large tree in fair/good condition. Should be unaffected as part of works but recorded for completeness. Protective fencing if required for adjacent stair demolition.		





Figure 1 – Tree Location Plan