



7th July 2020

General Manager
Northern Beaches Council
Attn Louise Kerr
PO Box 82

MANLY NSW 1655

Dear Ms Kerr,,

Re: DA2018/1332 – Arboricultural Comments on the Proposed Building D, Glenaeon, Belrose

We are advised that Lend Lease is requesting Northern Beaches Council to give consideration to allow for the construction of Building D and removal of the existing sediment basins. We are also advised that consideration be also given to delete the approved stormwater detention basins and construct stormwater controls up slope, beneath the approved building footprint.

In considering the impacts of this proposal the following reference is made to:

- Development Consent DA2018/1332, and
- Glenaeon – Precinct 207 Forest Way – Civil Works Renewal, S4.55 Modification DA 2018/1322, Dwg No. 256773_CDA_DA2-000, Revision 2, dated 04/03/20 (Cardno Limited NSW)

Development Consent

Development Consent DA2018/1332 was granted subject to a number of conditions including:

- *Condition 3 Building D - Plans to be amended to delete Building D and that portion of the site is to be maintained as native vegetation.*
- *Condition 39 Tree Protection - (a) Existing trees which must be retained*
 - i) All trees not indicated for removal on the approved plans, unless exempt under relevant planning*
 - ii) Trees located on adjoining land*
 - iii) all road reserve trees and vegetation.*
- *Condition 40 (2) The Project Arborist is to oversee all tree protection measures, removals and works adjacent to protected trees as outlined in the approved Tree Protection Plan and Arboricultural Impact Assessment dated 31 July 2018 prepared by Footprint Green.*

The above conditions of consent have been taken into account and are detailed in the Tree Protection Plan, dated 12/12/19 (Footprint Green) prepared under:

- *Condition 21. Tree Protection Plan - In order to protect and enhance onsite vegetation and trees the following applies to the development site:*
 - (a) A Tree Protection Plan prepared by a AQF Level 5 Arborist (or equivalent) showing the following:*
 - Layout of the approved development;*
 - Location of trees identified for retention;*
 - Extent of canopy spread;*
 - Location of tree protection fencing / barriers (fencing in accordance with AS2470 – 2009),*
 - General tree protection measures.*
 - (b) The Tree Protection Plan is to be submitted to the Principal Certifying Authority for approval prior to issue of a Construction Certificate.*

Modification Application

Details of the proposed modification are shown on the Glenaeon – Precinct 207 Forest Way – Civil Works Renewal, S4.55 Modification DA 2018/1322, Dwg No. 256773_CDA_DA2-000, Revision 2, dated 04/03/20 (Cardno Limited NSW)

Tree Retention & Removal

In relation to tree retention and removal differences between the Development Consent and the Modification Application the following comments are made

The lower eastern portion of the site contains 6 trees (Tree Reference Numbers 14, 22, 28, 31, 46 & 87) that are structurally unstable and are likely to fail. These trees are proposed to be removed as they are hazardous in accessible areas and are likely to fail in other less accessible areas. Despite whether building D is constructed or not, these trees should be removed.

The lower eastern portion of the site is to be managed as a bushfire Asset Protection Zone and, in addition to the unstable trees, a further 9 trees (Tree Reference Numbers 21, 42, 44, 67, 82, 83, 169, 171 & 172) have been identified as being removed to comply with APZ standards. Despite whether building D is constructed or not, these trees will be required to be removed.

The above listed 15 trees (Tree Reference Numbers 14, 21, 22, 28, 31, 42, 44, 46, 67, 82, 83, 87, 169, 171 & 172) will be required to be removed despite whether Building D is constructed or not. These trees are shown on the plan Existing Site Conditions, Rev. 01, dated 01/08/19 (Lend Lease, 2019).

Of the remaining trees in the south eastern portion of the site, 11 trees are problematic exotic weed species (e.g. Privet, Box Elders) that are exempt from protection under the Warringah Development Control Plan (2011) and have been included as being removed in the Tree Protection Plan (Footprint Green, 2019) under Condition 39(a),(i) of Consent DA2018/1332. These trees are (Tree Reference Numbers 30, 56, 71, 72, 73, 74, 75, 76, 84, 85 & 86) and whilst being exempt under the DCP provisions. Of these exempt species Tree No's 84, 85 & 86 were previously identified as being retained but under this modification application these 3 trees are proposed to be removed as part of the proposed rehabilitation of the riparian area.

Tree number	Species	Provenance	Hollows	Development Consent DA2018/1332 & Tree Protection Plan (Footprint Green 12/12/19)	Modification Application & Arb. Impact Assess. (Footprint Green 30/03/20)
8	<i>Ceratopetalum gummiferum</i>	Native		Retain	Retain
9	<i>Angophora costata</i>	Native		Retain	Retain
10	<i>Eucalyptus haemastoma</i>	Native		Retain	Retain
11	<i>Eucalyptus piperita</i>	Native		Retain	Retain
12	<i>Corymbia gummifera</i>	Native		Retain	Retain
13	<i>Corymbia gummifera</i>	Native		Retain	Retain
14	<i>Eucalyptus</i> sp dead	Native		Remove - unstable	Remove - unstable
15	<i>Eucalyptus piperita</i>	Native		Retain	Retain
16	<i>Eucalyptus piperita</i>	Native		Retain	Retain
17	<i>Eucalyptus piperita</i>	Native		Retain	Retain
18	<i>Angophora costata</i>	Native		Retain	Retain
19	<i>Eucalyptus piperita</i>	Native	Present	Retain	Retain
20	<i>Banksia serrata</i>	Native		Retain	Retain
21	<i>Angophora costata</i>	Native		Remove - APZ	Remove - APZ
22	<i>Angophora costata</i>	Native	Present	Remove - Unstable	Remove - Unstable
23	<i>Angophora costata</i>	Native		Retain	Retain
24	<i>Eucalyptus piperita</i>	Native		Retain	Retain
25	<i>Angophora costata</i>	Native		Retain	Retain
26	<i>Angophora costata</i>	Native	Present	Retain	Retain

Tree number	Species	Provenance	Hollows	Development Consent DA2018/1332 & Tree Protection Plan (Footprint Green 12/12/19)	Modification Application & Arb. Impact Assess. (Footprint Green 30/03/20)
27	<i>Angophora costata</i>	Native		Retain	Remove – Building D & associated drainage works
28	<i>Eucalyptus piperita</i>	Native	Present	Remove - Unstable	Remove - Unstable
29	<i>Callicoma serratifolia</i>	Native		Retain	Retain
30	<i>Ligustrum lucidum</i>	Exotic		Remove – Exempt Species	Remove – Exempt Species
31	<i>Eucalyptus piperita</i>	Native		Remove - Unstable	Remove - Unstable
32	<i>Ceratopetalum gummiferum</i>	Native		Remove	Remove – Building D & associated drainage works
33	<i>Angophora costata</i>	Native		Remove	Remove – Building D & associated drainage works
34	<i>Eucalyptus</i> sp.	Native		Retain	Retain
35	<i>Angophora costata</i>	Native		Retain	Retain
36	<i>Angophora costata</i>	Native		Retain	Retain
37	<i>Corymbia gummifera</i>	Native		Retain	Retain
38	<i>Eucalyptus piperita</i>	Native		Retain	Retain
39	<i>Eucalyptus piperita</i>	Native		Retain	Retain
40	<i>Angophora costata</i>	Native		Retain	Retain
41	<i>Angophora costata</i>	Native		Retain	Retain
42	<i>Angophora costata</i>	Native		Remove - APZ	Remove - APZ
43	<i>Corymbia gummifera</i>	Native		Retain	Retain
44	<i>Angophora costata</i>	Native		Remove - APZ	Remove - APZ
45	<i>Callitris rhomboidea</i>	Native		Retain	Retain
46	<i>Eucalyptus piperita</i>	Native		Remove - Unstable	Remove - Unstable
47	<i>Banksia serrata</i>	Native	Present	Remove	Remove – Building D & associated drainage works
48	<i>Callitris rhomboidea</i>	Native		Retain	Retain
49	<i>Callitris rhomboidea</i>	Native		Retain	Retain
50	<i>Angophora costata</i>	Native		Retain	Retain
51	<i>Banksia serrata</i>	Native		Retain	Retain
52	<i>Angophora costata</i>	Native		Retain	Retain
53	<i>Corymbia gummifera</i>	Native		Retain	Retain
54	<i>Banksia serrata</i>	Native		Retain	Retain
55	<i>Eucalyptus piperita</i>	Native	Present	Remove	Retain
56	<i>Acer negundo</i>	Exotic		Remove	Remove – Exempt Species
57	<i>Angophora costata</i>	Native		Remove	Remove – Building D & associated drainage works
58	<i>Angophora costata</i>	Native		Remove	Remove – Building D & associated drainage works
59	<i>Allocasuarina littoralis</i>	Native		Remove	Remove – Building D & associated drainage works
60	<i>Corymbia gummifera</i>	Native	Present	Remove	Retain
61	<i>Angophora costata</i>	Native		Remove	Remove - APZ
62	<i>Corymbia gummifera</i>	Native		Remove	Retain
63	<i>Angophora costata</i>	Native		Remove	Retain
64	<i>Corymbia gummifera</i>	Native		Remove	Remove - APZ
65	<i>Corymbia gummifera</i>	Native		Remove	Retain

Tree number	Species	Provenance	Hollows	Development Consent DA2018/1332 & Tree Protection Plan (Footprint Green 12/12/19)	Modification Application & Arb. Impact Assess. (Footprint Green 30/03/20)
66	<i>Banksia serrata</i>	Native		Remove	Retain
67	<i>Corymbia gummifera</i>	Native		Remove - APZ	Remove - APZ
68	<i>Angophora costata</i>	Native		Retain	Retain
69	<i>Eucalyptus</i> sp.	Native		Retain	Retain
70	<i>Acacia decurrens</i>	Native		Retain	Retain
71	<i>Acer negundo</i>	Exotic		Remove – Exempt Species	Remove – Exempt Species
72	<i>Acer negundo</i>	Exotic		Remove – Exempt Species	Remove – Exempt Species
73	<i>Acer negundo</i>	Exotic		Remove – Exempt Species	Remove – Exempt Species
74	<i>Acer negundo</i>	Exotic		Remove – Exempt Species	Remove – Exempt Species
75	<i>Acer negundo</i>	Exotic		Remove – Exempt Species	Remove – Exempt Species
76	<i>Acer negundo</i>	Exotic		Remove – Exempt Species	Remove – Exempt Species
77	<i>Angophora costata</i>	Native		Retain	Retain
78	<i>Callicoma serratifolia</i>	Native		Retain	Retain
79	<i>Callicoma serratifolia</i>	Native		Retain	Retain
80	<i>Callicoma serratifolia</i>	Native		Retain	Retain
81	<i>Eucalyptus piperita</i>	Native	Present	Retain	Retain
82	<i>Allocasuarina littoralis</i>	Native		Remove - APZ	Remove - APZ
83	<i>Pinus pinaster</i>	Exotic		Remove - APZ	Remove - APZ
84	<i>Schefflera actinophylla</i>	Exotic Not Locally Native		Retain - Exempt Species	Remove – Exempt Species
85	<i>Schefflera actinophylla</i>	Exotic Not Locally Native		Retain - Exempt Species	Remove – Exempt Species
86	<i>Schefflera actinophylla</i>	Exotic Not Locally Native		Retain - Exempt Species	Remove – Exempt Species
87	<i>Eucalyptus piperita</i>	Native	Present	Remove - unstable	Remove - unstable
88	<i>Angophora costata</i>	Native		Retain	Retain
89	<i>Callistemon viminalis</i>	Native		Retain	Retain
90	<i>Eucalyptus</i> sp.	Native		Retain	No longer exists
91	<i>Angophora costata</i>	Native		Retain	Retain
92	<i>Ceratopetalum gummiferum</i>	Native		Retain	Retain
93	<i>Corymbia gummifera</i>	Native		Retain	Retain
94	<i>Angophora costata</i>	Native		Retain	Retain
95	<i>Eucalyptus</i> sp.	Native		Retain	Retain
96	<i>Angophora costata</i>	Native		Retain	Retain
97	<i>Callistemon viminalis</i>	Planted		Remove	Remove – Building D & associated drainage works
105	<i>Corymbia gummifera</i>	Native		Retain	Retain
169	<i>Angophora costata</i>	Native		Remove - APZ	Remove - APZ
170	<i>Eucalyptus capitellata</i>	Native		Retain	Retain
171	<i>Eucalyptus piperita</i>	Native		Remove - APZ	Remove - APZ
172	<i>Eucalyptus piperita</i>	Native		Remove - APZ	Remove - APZ
173	<i>Eucalyptus piperita</i>	Native		Retain	Retain
174	<i>Corymbia gummifera</i>	Native	Present	Retain	Retain
175	<i>Eucalyptus</i> sp.	Native		Retain	Retain

Table - Comparative Tree Retention & Removal Analysis

		Unstable	Exempt Species	APZ	Associated with development works	Sum of
Development Consent DA2018/1332 & Tree Protection Plan (Footprint Green 12/12/19)	No. of Trees to be Removed	6	8	9	15	38
	No. of Trees to be Retained	1 (*)	3		56	60
Modification Application & Arb. Impact Assess. (Footprint Green 30/03/20)	No. of Trees to be Removed	6	11	11	8	36
	No. of Trees to be Retained				61	61

(*) Note : Tree No. 90 was assessed in the Arboricultural Impact Assessment, 31/07/2018 (Footprint Green) as being unstable and was to be retained in an inaccessible area of the site however the tree has failed, no longer exists and is not included in the Arboricultural Impact Assessment 30/03/2020 (Footprint Green)

Summary

Despite whether building D is constructed or not, 6 trees will need to be removed as they are structurally unstable / hazardous in accessible areas and are likely to fail in other less accessible areas.

Despite whether building D is constructed or not, 9 trees were identified as being removed to comply with APZ standards.

Of the remaining trees in the south eastern portion of the site, 11 trees are problematic exotic weed species (e.g. Privet, Box Elders) that are exempt from protection under the Warringah Development Control Plan (2011) and can currently be removed without consent.

Based on the above tables above:

- **15** trees are currently required to be removed for the development under Development Consent DA2018/1332 and the subsequent Tree Protection Plan (Footprint Green 12/12/19);
- **8** trees would be required to be removed to provide for development of Building D & associated drainage works.

Yours sincerely



Melanie Howden
Director & Principal
Arboriculturalist / Horticulturalist