

Attachment 10

Landscape Officer's Report

Recommendations

Supported with conditions

Site Characteristics

The site is the existing 50m pool facility located within Bicentennial Park, a listed heritage item under KPSO, built in 1970-71. The larger learner's pool was added in 1973. The pool and associated facilities are centrally located on a south facing slope edged to the north and west with remnant bushland that can be seen on early aerial photographs (c1943). The southeastern part of the site is located within the riparian zone of a Category 2 watercourse. Existing vehicle access is from Prince of Wales Drive off Lofberg Road with the principle parking area adjoining the southern boundary of the site and a maintenance area to the east. There is an existing pedestrian spine running along the western boundary of the site linking to the northern parts of the park and another linking from the carpark to the west.

TREE IMPACTS - POOL

An arborist report prepared by TALC dated 25/08/10 has been submitted with the application. Tree numbers refer to this report. An amended report prepared by TALC was submitted in February 2011.

Significant trees to be removed

Syncarpia glomulifera (Turpentine) Tree 22/10H, 9S, 450DBH, good health and condition, hollow – removed for path.

Eucalyptus saligna (Sydney Blue Gum) Tree 25/25+H, 20S, 1050DBH, good health and condition, hollow – proposed building is approx 1m from tree. Proposed to be removed for building.

Tree 23 is also to be removed – dead *Angophora costata*

Eucalyptus saligna (Sydney Blue Gum) Tree 31/22H, 10S, 700DBH, wound at 6m – proposed pavement widening by approx 500mm to 3.3m from tree within the TPZ (8.4m). Arborist recommends removal as the tree is potentially hazardous. Removal supported.

There are several immature locally occurring native tree species that have been planted in the northwestern corner of the pool enclosure. These trees are recently planted specimens within the pool compound. Removal supported.

Existing indigenous planting along the southern boundary that provides reasonable amenity between the pool and Prince of Wales Drive, including Trees 41, 43 and 45, is proposed to be removed for parking. Trees 41, 43 and 45 are proposed to be retained in the arborist report. A 2m wide strip of replacement planting is proposed.

Significant trees to be retained

Eucalyptus pilularis (Blackbutt) Tree 1/25H, 15S, 730/740DBH – a root investigation report along the line of proposed building 6m north of tree has been submitted with the application. The trench was approx 600mm depth and 9.3m in length. The proposed entry path to the east of the tree and associated retaining wall is approx 9m from the tree.

The arborist has stated that no pruning of the canopy of the tree would be required to comply with 5m clearance recommended bushfire consultant (Part 3.0, Bushfire Compliance Report, Bushfire Safety Solutions P/L, 14/09/10).

Eucalyptus pilularis (Blackbutt) Tree 2/25H, 12S, 600DBH, TPZ 7.2m –Part of a group with Trees 1 and 3 – 8 metres from proposed excavation for building, proposed planting within TPZ. No other works proposed within the TPZ of this tree.

Eucalyptus pilularis (Blackbutt) Tree 3/20H, 10S, 500DBH, TPZ 6m –Part of a group with Trees 1 and 2 – 10 metres from proposed excavation for building, proposed planting within TPZ. No other works proposed within the TPZ of this tree.

Angophora costata (Sydney Red Gum) Tree 24/18H, 15S, 450DBH, fair health and condition – proposed 3m high excavation for building is approx 7.7m from the tree. The eaves of the building extend 4.2m from the face of the building and are approx 3.5m from the tree(refer Section 2, DA06/D, Suturs, 1/10/10). To preserve future health of this tree, the eaves should be reduced to provide reasonable clearance to preserve this tree.

Angophora costata (Sydney Red Gum) Tree 24A/16H, 12S, 400DBH, fair health and condition – proposed 3m high excavation for building is approx 5m from the tree within TPZ. A shoring system is to be conditioned in accordance with Part 4.2, Geotechnical Report, Jeffery and Katauskas, 24 June 2009, along the northern elevation of the proposed pool building. The eaves of the building extend approx 2m from the tree(refer Section 2, DA06/D, Suturs, 1/10/10). The canopy of the tree would require significant pruning to comply with 5m clearance recommended bushfire consultant (Part 3.0, Bushfire Compliance Report, Bushfire Safety Solutions P/L, 14/09/10). To preserve future health of this tree, the eaves should be reduced to provide reasonable clearance to preserve this tree.

Eucalyptus saligna (Sydney Blue Gum) Tree 30/22H, 15S, 950DBH, wound at 9m, resistograph recommended by arborist however no testing provided – proposed pavement widening by approx 500mm to 6.5m from tree within the TPZ (11.4m radius from trunk). Impact considered acceptable subject to conditions.

Liquidambar styraciflua (Liquidambar) Tree 32/23H, 16S, 750DBH, cavity in trunk, very popular shade tree within pool precinct – proposed pavement widening by approx 1.2m to 3.1m from tree within the TPZ (9m), posts for shade cover and stormwater line constructed within TPZ. Arborist recommends paving levels to be above grade on a porous subbase.

Fraxinus excelsior (Ash) Trees 33-35/ 5H, 10S, 600DBH - proposed pavement widening between 1.0 and 1.2 metres from the trees within the trees' SRZ. To preserve health and condition of trees, the proposed paving levels are to be above grade as per Tree 32.

Eucalyptus saligna (Sydney Blue Gum) Tree 45/21H, 12S, 800DBH, good condition – proposed driveway and footpath works within TPZ. Arborist recommends that the replacement path should be suspended above existing levels at the base of the tree. To be conditioned.

TREE IMPACTS - NEW ROAD INFRASTRUCTURE AND PARKING

An arborist report prepared by Raintree Consulting dated February 2011 has been submitted. Tree numbers refer to this report. No excavation or filling or associated kerbs and gutters or any other drainage works are approved as part of this application.

1. Area 1 – South of Pool

The proposed carpark layout indicates that all of the vegetation is proposed to be removed by the proposed works. All of the vegetation has been planted since the pool construction. The proposed replacement planting layout including plant schedules in association with this area is shown on the Landscape Planting Plan, prepared by Sturt Associates, dwg DA-0901-02, Dated 24/02/11. There are no objections to the tree removals.

4 trees removed – Tree 38a, 41, 43, 44 .

2. Area 1A – Southwest of Pool

No tree impacts

3. Area 2 – East of Pool

The existing carpark has a crushed sandstone surface with areas of exposed sandstone. Proposed new car park surfacing of up to 50% encroachment within TPZ of Tree 53, 69, 70 and 71. Existing levels are proposed to be retained and a new bituminous top coat added. Existing crushed sandstone access road is proposed to be retained within SRZ of Tree 52. Site arborist supervision is recommended regarding all works in this area. No additional excavation, filling or tree removal is permitted under this application. Proposed works are located within a Category 2 Core Riparian Zone. To mitigate increased surface runoff into the adjacent watercourse, additional locally occurring riparian groundcover

planting is proposed. A minimum 2m width area of planting is to be conditioned. Planting is to continue along the entire length of the access road and carpark.

7 trees removed for works (1 dead, 1 extensive termite damage) – Tree 61- 67.

4. Area 3 – Prince of Wales Drive (STIF (Hayes 2010))

The existing parallel carpark and footpath is proposed to be reconfigured as angle parking with a 2 metre width elevated timber boardwalk. The arborist recommends isolated single pier footings being located within the SRZ of Trees 72 and 74. Proposed works are located within a Category 2 Core Riparian Zone.

Likely SRZ impacts on 2 locally occurring native trees - Tree 72 and 74. Several small trees including 2 *Eucalyptus paniculata* (Grey Ironbark) will be removed for footpath – not shown on the landscape plan as being removed. No objection to the trees removal subject to replacement planting.

5. Area 4 – Bowling Club Carpark

Proposed removal of 22 trees for the new carpark including one (1) in the existing carpark, all planted native trees 10 metres or less in height. Existing levels are proposed to be retained however it can be assumed that excavation for subgrade and topcoat will be required in association with compaction. Site arborist supervision is recommended. No additional excavation, filling and tree removal is permitted under this application.

Structural roots of one (1) trees will be adversely impacted (Trees 91). The tree is a 13m high *Lophostemon confertus* (Brushbox). Replacement canopy tree planting is proposed within the front setback to Ryde Road and light screen planting along the southern boundary adjoining residential property.

22 trees removed for works

Adverse SRZ impacts on 1 trees – Tree 91

6. Area 5 – Possible future widening of Prince of Wales Drive at Lofberg Road (STIF (Hayes 2010))

This group is visually prominent at the entry to Bicentennial Park, Tree 95 being a 25 metre high *Eucalyptus pilularis* (Blackbutt). Arborist considers that the proposed excavation within the structural root zone of three trees (Tree 94, 95 and 96) is likely to lead to failure of trees. Kerb has been reduced on amended plans to reduce impacts on Tree 94 and 95. No additional excavation, filling and tree removal is permitted under this application.

4 trees removed for widening – Tree 96 (4 *Syncarpia glomulifera* (Turpentine))
Adverse SRZ impacts on 2 locally occurring native trees

7. Area 6 – Lofberg Road, North of Norman Griffiths Oval (remnant trees)

Proposed removal of 2 small trees. The structural roots of trees will be adversely impacted including five mature trees (Tree 100, 101, 102, 103, 106). No levels have been provided so assessment of excavation within SRZ or TPZ is unable to be determined. To preserve Trees 100 – 103 proposed 7 no angle parking areas

to the east of Tree 103 are to be reconfigured as 4 no parallel parking spaces. Site arborist supervision is recommended regarding all works in this area. No additional excavation, filling and tree removal is permitted under this application.

3 trees removed for works

8. Area 7 – Lofberg Road - North of Cricket Nets

Tree 116 *Eucalyptus pilularis* (Blackbutt) 25H, 850/500/1000, is described in arborist report as having basal trunk wounds and cavities at approx 8m with evidence of past branch failure at 3m. Further investigation is recommended to determine structural stability of tree. Site arborist supervision is recommended regarding all works in this area. No additional excavation, filling and tree removal is permitted under this application. Proposed works within tree's SRZ, including increased target in the form of carparking within trees range of potential failure is not recommended. To preserve health and condition of this visually significant tree, three car spaces to the east of existing gate access to Lofberg Oval are to be deleted and reconfigured as a planting island.

Removal of *Ulmus* sp (Tree 115) is supported.

Proposed works within SRZ of Trees 114 and 117. No levels provided.

Site arborist supervision is recommended regarding all works in this area. No additional excavation, filling and tree removal is permitted under this application.
1 tree removed for works

Total

Trees required to be removed to accommodate the proposed works - 37

Landscape Plan/Tree replenishment

Landscape works in association with Carpark Areas

The majority of the parking areas are at the edge of the bushland representative of Sydney Turpentine Ironbark Forest, an Endangered Ecological Community (TSC Act). Buffer zones should be created to improve the ecological function of the existing bushland. Proposed edge works should address issues of weed control, access management, stormwater control, soil erosion and stabilisation and planting in accordance with Best Practice Guidelines for STIF (DECC, 2008).

Stormwater Plan

Stormwater drainage to proposed carparking areas is not proposed as part of this application.

Riparian

A Vegetation Management Plan is recommended in the Ecological and Riparian Assessment Report (Section 11, Ecological and Riparian Assessment Report, Whelan Insites, 20/09/10).

Fire

The Landscape plan should comply with bushfire requirements including a 5m canopy clearance from buildings and maintenance of the open area around the building as an inner protection area.

CONCLUSION

Supported with conditions.