Sapphire

Landscape Masterplan Report
ADDENDUM

prepared by
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for
Sapphire Beach Development Pty Ltd
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1.0 Introduction

The following report responds to issues identified by the Department of Planning NSW and various agencies during the review of the Concept Plan submitted to the department for proposed residential and tourist accommodation at 740/742 Pacific Highway, Sapphire Beach, Coffs Harbour. The proposed development is known as “Sapphire”. This report is an addendum to the Landscape Masterplan Report submitted with the Concept Plan. The issues responded to in this report relate to landscape design, existing site vegetation, revegetation works and site planning.

2.0 Issues

The following concerns were raised by Coffs Harbour City Council and are considered in this report.

Public Transport
The development should have access to a bus stop. The developer should liaise with the RTA on this aspect of the proposal in refining site access off the Highway and pedestrian access from the site to the bus stop.

Coastal Walk – connection from Highway to beach
The connection of the Coastal Walk through the site to the Highway is endorsed however the gradient of this connection is considered unsuitable for normal pedestrian use. Accordingly the location/construction of this connection requires review.

Signature Trees
The proposed removal of a significant number of signature trees from the site should be reviewed. The concept proposed the removal of approximately 70% of established trees on site, including a number of significant native and signature trees e.g. Tuckeroos, pandanus, hoop pines. Can the project be redesigned to preserve established signature trees on the site?

Beachfront Homes and Dune - Urban Design Response
The proposed configuration, extent and area of private recreation space for the Beachfront Homes appears excessive (at the expense of quality "whole of site" community space that may include picnic/seating and open lawn areas for active play). This aspect requires review.

The consistent "straight line" alignment of the Beachfront Homes is considered too dominant an edge for the coastal setting. This aspect of the project requires a design review.

Side boundary setbacks to the Beachfront Homes requires redesign to incorporate increased and improved common landscape buffer to the Coastal Walk connection (north) and to the adjoining southern property boundary.

The following concerns were raised by the Department of Planning and are considered in this report.

Design
It is noted that some of the existing open space in the northeast of the site would be privatised as yards for individual dwellings in the concept plan. The provision of community open space needs to be maximised allowing for

public access along the foreshore in accordance with the NSW Coastal Policy 1997. Access for persons with a disability should also be addressed.

Flora and Fauna

It is noted that the proposed buildings would overshadow the 7A zoned vegetation. Please identify the extent of overshadowing and the potential impacts of the proposal on this area.

3.0 Responses

3.1 Public Transport

Coffs Harbour City Council indicated the development should have access to a bus stop. A pedestrian pathway is located along the main vehicular route. This links the Beachfront precinct to the western extent of the site. Secondary paths along the way provide a link to all other residential buildings. The pathway culminates in a link to the highway at the top of the site. The applicant has agreed with the RTA to fund a bus stop on the highway immediately adjacent to the development site. The internal pathway would link to this bus stop.

3.2 Public Access to Coastal Walk

Council indicated support for the link through the site to the Coastal Walk, however, expressed concern for the nature of the link. In reviewing this link, it was determined that locating the access within an extension of the existing easement along the northern extent of the site, was the most logical location for the link to the Coastal Walk. Consideration, however, was given to the design of this access. Given the steep nature of the site it was not deemed possible to achieve disabled access along either this link or the main internal pedestrian spine. It was also noted that the Coastal Walk at this location was along Campbells Beach and did not accommodate disabled access and that access over the headland to the south was via a series of steep informal tracks. As an alternative, a series of 'resting locations' would be provided along both the link to the Coastal Walk and the main internal pathway. These locations would include a level area of pavement and a seat. The link to the Coastal Walk provides excellent views to the ocean and seating at the resting locations would be sited to take in these views. Low retaining walls would be utilised to create level areas.

Given there is currently no public access to the beach at this site, the new link to the Coastal Walk would be providing a new public facility and would be improving public access to Campbells Beach.

The revised masterplan also indicates locations for signage on the access to the Coastal Walk. Signage and a seating area would be located at the entry to the access, that is, at the western extent of the easement. Directional signage would be located along the route. The link would culminate in a beach access and signage would also be located here to indicate the link back up to the highway.

At the eastern end of the access, an area of public park would include shade trees, seating and picnic facilities. A path links from here south to the beachfront park within the development. Low planting at the entry to the access, along the route and to the public park would feature coastal species. Repetition in the style and plant species would create a series of gardens that would assist in defining the route.

The northern boundary of the northern most Beachfront home has been pulled back by a one (1) metre to widen the access to the Coastal Walk at this location. The surrounds to the access at this location would include a one (1) metre width of

turf to allow easy surveillance of the path and a metre width of planting to provide a buffer to the adjacent residence. The northeast boundary of this home has also been splayed to that the public park at the end of the access is cleary visible.

3.3 Signature Trees

The masterplan included a tree retention/removal schedule. This plan indicated the presence of 97 isolated trees/palms within the site. These were in addition to the area of 7A vegetation and the area of dune vegetation at the northeast extent of the site. Both these areas will be retained and will be the subject of a weed removal and revegetation program.

Of the 97 trees/palms identified on site, 67 were indicated for removal. Coffs Harbour City Council expressed concern at this proportion of tree removal and, in particular, at the removal of a line of 4 Hoop Pines (*Araucaria cunninghamii)* located on the higher part of the site.

The following table is the list of trees/palms for removal. This is an extract from the Existing Vegetation Schedule included in the original masterplan. Tree numbers 6, 9 and 10 have been amended following a site visit to confirm the tree identification. Additional details have been added to explain the strategy for each tree. Strategies include the transplanting of removed Pandanus, the removal of Hoop Pines due to disease and the extensive replacement planting of indigenous species.

SCHEDULE OF EXISTING TREES FOR REMOVAL - Sapphire Development			
Number	**Species**	**Common Name**	**Strategy**
T1	Syzygium species	Lilly Pilly	replace in new planting
T2	Mangifera indica	Mango	remove
T3	Mangifera indica	Mango	remove
T4	dead tree		remove
T5	Araucaria heterophylla	Norfolk Island Pine	remove
T6	unidentified palm species	Palm species	remove
T7	Araucaria cunninghamii	Hoop Pine	remove (diseased)
T8	Araucaria cunninghamii	Hoop Pine	remove (diseased)
T9	unidentified palm species	Palm species	remove
T10	Araucaria bidwillii	Bunya Pine	remove
T11	unidentified		remove
T12	Araucaria cunninghamii	Hoop Pine	remove to create disease free buffer
T13	Araucaria cunninghamii	Hoop Pine	remove to create disease free buffer
T14	Araucaria cunninghamii	Hoop Pine	remove to create disease free buffer
T15	Araucaria cunninghamii	Hoop Pine	remove to create disease free buffer
T16	Araucaria heterophylla	Norfolk Island Pine	remove
T17	Casuarina species	She-oak	replace in new planting
T18	Araucaria heterophylla	Norfolk Island Pine	remove
T19	Araucaria heterophylla	Norfolk Island Pine	remove
T20	Araucaria heterophylla	Norfolk Island Pine	remove
T21	Casuarina species	She-oak	replace in new planting
T22	Araucaria heterophylla	Norfolk Island Pine	remove
T23	Casuarina species	She-oak	replace in new planting
T24	Casuarina species	She-oak	replace in new planting
T25	Casuarina species	She-oak	replace in new planting
T27	Pandanus pedunculatus	Screw Pine	transplant
T28	Pandanus pedunculatus	Screw Pine	transplant
T29	Pandanus pedunculatus	Screw Pine	transplant
T30	Pandanus pedunculatus	Screw Pine	transplant
T31	Araucaria heterophylla	Norfolk Island Pine	remove
T32	Pandanus pedunculatus	Screw Pine	transplant
T33	Banksia integrifolia	Coastal Banksia	replace in new planting
T34	unidentified		remove
T35	Banksia integrifolia	Coastal Banksia	replace in new planting
T36	Pandanus pedunculatus	Screw Pine	transplant
T37	Banksia integrifolia	Coastal Banksia	replace in new planting
T38	Pandanus pedunculatus	Screw Pine	transplant
T39	Banksia integrifolia	Coastal Banksia	replace in new planting
T47	Pandanus pedunculatus	Screw Pine	transplant

SCHEDULE OF EXISTING TREES FOR REMOVAL - Sapphire Development			
T48	Cupaniopsis anacardioides	Tuckeroo	replace in new planting
T49	Cupaniopsis anacardioides	Tuckeroo	replace in new planting
T50	Banksia integrifolia	Coastal Banksia	replace in new planting
T66	Pandanus pedunculatus	Screw Pine	transplant
T67	Pandanus pedunculatus	Screw Pine	transplant
T68	unidentified		remove
T69	Pandanus pedunculatus	Screw Pine	transplant
T70	Pandanus pedunculatus	Screw Pine	transplant
T71	Pandanus pedunculatus	Screw Pine	transplant
T72	Pandanus pedunculatus	Screw Pine	transplant
T73	Pandanus pedunculatus	Screw Pine	transplant
T74	Pandanus pedunculatus	Screw Pine	transplant
T75	Pandanus pedunculatus	Screw Pine	transplant
T76	Pandanus pedunculatus	Screw Pine	transplant
T77	Pandanus pedunculatus	Screw Pine	transplant
T78	Pandanus pedunculatus	Screw Pine	transplant
T79	Pandanus pedunculatus	Screw Pine	transplant
T80	Pandanus pedunculatus	Screw Pine	transplant
T81	Pandanus pedunculatus	Screw Pine	transplant
T82	Pandanus pedunculatus	Screw Pine	transplant
T83	Pandanus pedunculatus	Screw Pine	transplant
T84	Pandanus pedunculatus	Screw Pine	transplant
T85	Pandanus pedunculatus	Screw Pine	transplant
T86	Pandanus pedunculatus	Screw Pine	transplant
T93	Pandanus pedunculatus	Screw Pine	transplant
T94	unidentified		remove
T95	unidentified		remove
T97	unidentified		remove

Table 1 – Schedule of Trees for removal

Of the 67 trees/palms indicated for removal, 29 are *Pandanus pedunculatus* (Screw Pine) specimens that were planted as part of the landscape to the Pelican Beach Resort. These Pandanus represent attractive specimens that are, on average, 3 to 4 metres tall and 5 to 6 metres in spread. The landscape plan indicates new planting of this species and the intention is that these 29 Pandanus will be transplanted and re-used within the site. Locations for the transplanted Pandanus include the Beachfront parkland, the Beachfront homes, the surrounds to the link to the beach access and the surrounds to the communal pool. At the request of Council, information has been sought regarding the ease and likely success at which these Pandanus can be transplanted. This information is included in Appendix A – letter from Active Tree Services.

The 67 trees/palms for removal includes 6 *Araucaria cunninghamii* (Hoop Pines) An initial site inspection early in the project identified the potential for 2 of the larger Hoop Pines on the higher part of the site to be in poor health. A review by Active Tree Services identified that the trees were affected by Mundalla Yellows syndrome. Active Tree Services identified the need for a buffer zone of clearing in order to ensure that the disease does not spread to the 7A zone. At the request of Council, additional information and clarification of the required buffer has been obtained from Active Tree Services. Active Tree Services revisited the site and clarified that the 2 diseased trees need to be removed and the 4 smaller hoop pines need to also be removed in order to establish a disease free buffer zone. Please refer to Appendix A.

It is recognised that the Hoop Pine is a signature tree at this location and that the groups of Hoop Pines occurring to the north at the Sapphire Apartments are landmark trees on the highway. It is proposed that new hoop pines are planted in the large terraced garden area at the southwest of the site. This garden will be elevated by a retaining wall and therefore the trees will be visible from the highway. New plantings of Hoop Pines are also proposed for the carparking area at the top of the site and in the gardens to the west of the adjacent building. The building at the top of the site has been reduced by one floor level. Hoop Pines, and other shade trees, in the gardens to the west of this building will provide screening to the built form.

The balance of trees/palms for removal includes 1 *Syzygium* species, 5 *Casuarina* species, 5 *Banksia integrifolia* (Coastal Banksia) and 2 *Cupaniopsis anarcardioides* (Tuckeroo). The intention is that these species will be part of the plant species included in the gardens to the buildings. In particular, *Cupaniopsis anacardioides* will be used as a street tree species. These removed trees will be replaced at least 10 fold by new plantings.

The remaining trees/palms for removal are determined to be insignificant exotic species.

3.4 Open Space & Dune Revegetation/Stability

Both the Department of Planning and Coffs Harbour City Council expressed concern for the extent of communal open space at the Beachfront area. In response to this concern, the eastern boundaries of the Beachfront homes have been pulled back at least a metre per home, more in some instances, to create a larger area of communal park behind the dunes. The original masterplan included a communal area of 1200m^2 at this location. The revised masterplan includes an area of 1490m^2 at the same location. On average the width of Beachfront park, that is, communal space behind the dunes is 13 metres. In addition to this communal area, there is a large area of parkland surrounding the central link to the beach access. This park is 1575m^2 in size. Therefore the total area of communal Beachfront parkland now is 3065m^2.

Proposals for this parkland have taken in consideration the Department of Planning and Council's requirements for communal facilities. The parkland adjacent to the

link to the beach access includes picnic and seating areas. It is intended these facilities would be located near garden areas and shade trees. This area includes open grassed areas for play. Two large BBQ and picnic areas are located close to the beach access and existing Pandanus. These facilities are located close to grassed areas for overflow for large group gatherings and to provide play areas for young visitors.

A north/south pathway provides a walk through the Beachfront parkland. The northern pathway is linked to the access to the Coastal Walk to create a potential walking circuit. A loop is provided at each pathway end. Shade trees, existing Pandanus and existing dune vegetation at the northeast extent of the site would provide shade to this parkland with seating located at shaded locations. Low planting of coastal plants would provide amenity and define significant locations such as the picnic and BBQ areas.



The north/south pathway is intended as a walking area with quiet seating areas for passive recreation. The picnic/BBQ at the intersection of this pathway and the link to the beach is intended as a gathering point. The central parkland either side of the link to the beach is 27m wide and is proposed as the zone for active play.

A seating area would be located either side of the beach access. These locations would have views to the ocean and would be located below existing Pandanus. Access to these areas would be controlled as part of the dune fencing.

In addition to this area of parkland, there is a second communal park located east of the 7A vegetation. This park would take advantage of the natural feature of this vegetation. In particular, there are a number of large mature trees at the eastern extent of this vegetation that would add visual amenity to the park. Revegetation to the edge of the 7A vegetation would provide a planted edge to the park. This parkland would include shade shelters, picnic areas, seating and an open grassed area for play. This park is 650m^2 in area. It is located adjacent to the main vehicular access and is on one of the main walking circuits within the development.

Additional 'green space' within the development would be provided by the retained area of 7A vegetation and the rehabilitated existing dune vegetation. These areas would be managed in accordance with the Plan of Management prepared for the site by BushfireSafe Pty Ltd Environmental Services. Strategies for the dune vegetation include the removal of noxious and environmental weeds both within the zone and 20 metres either side of the dune area. The area would be revegetated with a selection of local provenance fire retardant species. Plantings would be mixed ranging from small to medium height. Other strategies include the installation of dune protection fence and the installation of managed beach access.

The balance of the dune area would be revegetated with native coastal vegetation with strategic tree planting to maintain view corridors. The majority of the existing dune is currently grassed with isolated Pandanus. Revegetation works will be extensive and will provide stability to a previously highly modified dune environment.

Strategies for the 7A vegetation include the removal of exotic and weed species and the planting and regeneration of native indigenous species. In particular, where there are substantial gaps in the tree cover, trees are to be planted to enhance the landscape character.

3.5 Alignment of Beachfront Homes

Council indicated concern for the visual amenity of the Beachfront Homes. In response, the Beachfront Homes already have a varied alignment along their eastern extent and it was determined that an increased difference in setbacks would not be perceived from the beach. It is proposed that the contrast created between single and double storey buildings will create a more 'broken up' built form than varied setbacks. A suggestion by the Department of Planning to move the garages and homes closer was considered, however, the existing layout provides the Beachfront homes with an outdoor area that captures the afternoon sun and also provides a location to escape strong sea winds.

Whilst the Beachfront homes and patios are located on fill, the gardens to the east of the homes are at existing ground level, minimising damage to existing vegetation. Existing trees in conjunction with transplanted Pandanus and strategically located shade trees will serve to soften the built form when viewed from the beach. In addition, the eastern boundaries of the Beachfront homes have been pulled back between 1 to 2 metres and the detention basin has been removed forward of the building line. This has increased the extent of communal open space and added to the 'green' buffer between the beach and the residences.

Council indicated concern that the side boundary setback for the northern most Beachfront home was not appropriate for the access to the Coastal Walk. In response, the access to the Coastal Walk has been widened by 1 metre with the northeast boundary to the adjacent Beachfront home splayed to allow easy viewing to the public park at the end of the link. The setback to the southern Beachfront home is 2.5m.

3.6 Overshadowing of 7A vegetation

The Department of Planning indicated concern that the proposed building at the higher part of the site may overshadow the 7A vegetation. The area of 7A vegetation is on a steep slope, of an average gradient of 1:2 that faces southeast. The proposed building is located to the northwest of the 7A vegetation. In summer, the area of vegetation will continue to receive sun until late in the day. Again in winter, the vegetation would receive sun at least until early afternoon. Given the steepness of the site on which the vegetation is located and its aspect, the vegetation would be unlikely to be affected by the building to the west. In addition, much of the 7A vegetation is already shaded by mature trees in the zone.

Appendix A

FAX RECEIVED FROM B.IRWIN@ACTIVE 0266537185 AT 4:48P.M PAGE(S) 2 OF 2

ACTIVE TREE SERVICES

FAR NORTH COAST OFFICE

Monday 27th November 2006

To: Bushfiresafe Pty. Ltd
20 McLaughlan St
Maclean N.S.W 2463

<u>Clarification of issues associated with Pelican Beach Resort</u>

After further discussions based on our correspondence dated 9th August 2006, the following clarifications have been put forward:

A) Clearing and buffer for pines effected by Mundulla Yellows (MY)
The eighteen Meter buffer has been set by:

- The root zone of the effected trees being a maximum of thirteen Meters in length and
- a five meter buffer being added to stop the spread of the disease.

A question was raised by the Environmental Consultant as to weather the four smaller pines to the south-east would need to be removed. Due to the encroachment of these pines root systems into the buffer area, it would be expected that these pines be removed.

B) Lifting and transplanting of Pandanas along beachfront.
The transplanting of mature Pandanas is a relatively easy task. Pandanas rootballs are relatively compact and are lifted quite easily by escavator. If sufficient soil is maintained around the rootball, the Pandanas can be stored for short terms prior to replant. Furthermore, it would also be possible to "farm" the Pandanas by planting elsewere until such time as the site is ready for the replacement of the Pandanas.

Regards,

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