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BALLINA GATEWAY PROJECT – SUPPLEMENTARY REPORT ON STREET TREE SELECTION

Background

The Ballina Gateway Project examined measures to improve the experience into Ballina following the Pacific Highway Bypass of Ballina. A number of measures were proposed in a draft Master Plan prepared by King and Campbell (January 2013) following consultation with Councillors and Council staff. The Master Plan was adopted by Council on 26 September 2013.

A comprehensive tree planting program was proposed as part of the Master Plan. The Master Plan stated that:

Large distinctive trees should be planted in road edges, road verges and in the centre median, wherever possible along the entry road route. Smaller trees should be planted where there are conflicts with overhead power lines.

As part of the development of the Master Plan there was considerable discussion relating to appropriate tree species. Tree species ultimately recommended in the Master Plan are:

- Large tree for centre median planting – *Brachychiton acerifolius* (Flame Tree)
- Large tree for road edge planting – *Caesalpinia ferrea* (Leopard Tree)
- Small tree for road edge planting (under power lines) – *Buckinghamia celsissima* (Ivory Curl Flower)

Purpose of this Report

Since the adoption of the Master Plan there has been continued discussion about appropriate tree species, with some concerns raised in relation to two (2) of the tree species proposed above. The purpose of this report therefore is to provide some background to the tree species selection process, including re-examining street tree species alternatives.

Key Principles in Tree Selection Process

The key principles for all proposals in the Master Plan, which are also relevant for tree selection are:

1. *Measures should be visually bold and of a scale that is consistent with the visual elements with which they will need to compete for attention;*
2. *Elements utilised as part of the scheme should exhibit a consistency of form and colour so as to engender a strong visual identity;*

3. *The proposals should say something about Ballina;*
4. *The proposals should as much as possible, be designed and implemented by local people, to keep money in the town*

Key considerations for tree selection specifically are:

- The trees should be of appropriate form and scale
- A limited tree planting palette – i.e. one tree species for each of the three (3) applications above – to create a strong and consistent visual theme.
- The trees should be able to thrive in the prevailing microclimatic conditions, including soils and high salt water table.
- The trees are relatively fast growing;
- The trees should ideally be indigenous to the region however, through discussions with Council representatives, this was considered not to be of crucial importance;
- Ongoing maintenance requirements.

Tree Species Considered through the Selection Process

A large number of tree species were considered, including a significant number put forward by Council representatives.

The full list of tree species considered, including general comments on each are set out below:

Large Trees for Centre Median

- *Agathis robusta* (Kauri Pine) – Excellent form, scale and distinctiveness, can be purchased as large specimens, not a species currently identifiable with Ballina, ability to cope with high salt water table unknown.
- *Araucaria cunninghamii* (Hoop Pine) – Good distinctive form although may ultimately be too big, regionally indigenous tree species.
- *Peltophorum pterocarpum* (Yellow Flame Tree) – Good form, scale and colour, good specimens in Goonellabah but tolerance to Ballina conditions unknown, semi-deciduous, not indigenous.
- *Brachychiton acerifolius* (Flame Tree) – Very distinctive form and colour, indigenous to region, unproven in high salt water table, deciduous.

Large Tree for Road Edge Planting

- *Brachychiton acerifolius* (Flame Tree) – Very distinctive form and colour, indigenous to region, unproven in high salt water table, deciduous, may not grow big enough for this application.

- *Peltophorum pterocarpum* (Yellow Flame Tree) – Good form, scale and colour, good specimens in Goonellabah but tolerance to Ballina conditions unknown, semi-deciduous, not indigenous.
- *Melaleuca leucadendra* (Weeping Paperbark) – Good scale, irregular but attractive growing habit, good specimens found in Ballina, an Australian native tree but not indigenous to region.
- *Caesalpinia ferrea* (Leopard Tree) – Excellent consistent form and scale, attractive light canopy, not indigenous to region, evidence that it will grow in Ballina.

Small Tree for Road Edge Planting

- *Elaeocarpus eumundii* (Smooth Leaved Quandong) – Excellent form, growing habit and scale and distinctive foliage, indigenous to region, not widely used and unproven in prevailing conditions, may grow too tall for this application (require pruning).
- *Cupaniopsis anacardioides* (Tuckeroo) – Good form and scale, well known performer in Ballina, indigenous to region, can be a little unpredictable – needs very good growing medium, widely used as street tree.
- *Acmena smithii* (Lilly Pilly) – Good form and scale, is very likely to perform well in Ballina, indigenous to region.
- *Buckinghamia celsissima* (Ivory Curl Flower) – Good compact rounded form with distinctive flowering, widely used as a small street tree, proven performance in Ballina, native of Queensland.

Other tree species that were suggested and discussed during the Master Plan process but were not considered options for further consideration for various reasons were:

Hymenosporum flavum – (Native Frangipani)
Melicope eleryana – (Pink Evodia)
Hapulla pendula – (Tulipwood)
Sarcopteryx stipulate – (Steelwood)
Syzygium kiehmannii – (Riberry)
Alloxylon flammeum – (Tree Waratah)
Xanthostemon chrysanthus – (Golden Penola)
Syncarpia glomulifera – (Turpentine)
Waterhousia floribunda – (Weeping Lilly Pilly)

Response to Recent Feedback

Recent feedback from Council has questioned the proposed use of *Brachychiton acerifolius* (Flame Tree) and *Caesalpinia ferrea* (Leopard Tree). In this regard the concerns raised were:

Brachychiton acerifolius (Flame Tree) –

- Deciduous and sheds a high volume of material
- Can suffer from borer
- May only partially flower after a wet winter
- May not deal with high salt water table
- Needs deep soil
- Slow growing

Caesalpinia ferrea (Leopard Tree) –

- The high volume of material it sheds
- Inability to cope with salt water table
- Its multiple narrow branch unions (increased likelihood of failure)
- Tropical deciduous (drops leaves in spring)
- Potential to become an environmental weed

Alternative trees put forward for consideration at this time were *Melaleuca leucadendra* (Weeping Paperbark), *Syzygium* (Lilly Pilly) species and *Waterhousia floribunda* – (Weeping Lilly Pilly). All of these trees had previously been considered.

Response to Feedback

The following response is provided to the feedback above:

In relation to *Caesalpinia ferrea* (Leopard Tree) –

- This tree species is not listed as a weed by the North Coast Advisory Committee. It is an exotic tree that had been planted extensively in Queensland and New South Wales.
- A specimen of this tree exists in Ballina on the western side of the entry bridge on River Street. The specimen is semi-mature (approximately 6 metres high) and in very good condition. This provides some comfort that this plant species will do well in Ballina.
- This tree provides optimal value in terms of its scale and consistent form to suit its proposed application, relatively fast growth habit and general appearance.
- The deciduous nature of the tree does mean heavy leaf drop in spring. However, the leaves of this tree are very small and this problem is considered to be much less of an issue compared to (say) large leaved cold climate deciduous trees (i.e. plane trees).

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LARGE TREE FOR CENTRE MEDIAN PLANTING



Brachychiton acerifolius (Flame Tree)



Agathis robusta (Kauri Pine)



Araucaria cunningham (Hoop Pine)



Peltophorum pterocarpum (Yellow Flame)

LARGE TREE FOR ROAD EDGE PLANTING



Caesalpinia ferrea (Leopard Tree)



Brachychiton acerifolius (Flame Tree)



Peltophorum pterocarpum (Yellow Flame)



Melaleuca leucadendra (Weeping Paperbark)

SMALL TREE FOR ROAD EDGE PLANTING



Buckinghamia cellisima (Ivory Curl Flower)



Elaeocarpus eumundii (Smooth Quandong)



Cupaniopsis anacardioides (Tuckeroo)



Acmena smithii (Lilly Pilly)

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TREE PLANTING CONSIDERED

BALLINA GATEWAY PROJECT

PREPARED FOR BALLINA SHIRE COUNCIL BY KING & CAMPBELL JANUARY, 2014



In relation to *Brachychiton acerifolius* (Flame Tree) –

- We agree that this tree requires a good and relatively deep growing medium. The existing wide (3.8m) median provides the opportunity to establish such a growing medium. By slightly mounding the planting bed – to say approximately 400-500mm above the top of median kerb levels, tree roots can be provided with good soil depths and also effectively be elevated above the high salt water table.
- It is understood that these trees are somewhat variable in their flowering habit and the foliage is quite sparse. However, when they do flower they are spectacular and very memorable – they are also a tree that is indigenous to and very much connected with the region.
- A possible alternative to planting these exclusively in the median would be to intersperse these trees amongst another, more evergreen tree species of similar character. In this regard it may be worth considering planting one *Brachychiton acerifolius* (Flame Tree) to every two (2) *Elaeocarpus eumundii* (Smooth Leaved Quandong). Both trees are indigenous to the region and will visually complement one another. With this approach the seasonal colour will still be a feature, if not so visually dominant as would be the case of planting *Brachychiton acerifolius* (Flame Tree) exclusively.

In relation to *Melaleuca leucadendra* (Weeping Paperbark) –

- We agree that this is an excellent specimen tree that will grow well in Ballina. It is noted however that this tree is not indigenous to the region but is native to Australia.
- This tree has a more informal form making it an excellent choice for parks and gardens. It is not generally considered to be as suitable for use in a formal street tree planting applications because of its weeping habit and variable form. However, Council may consider that an informal planting of this nature would create an appropriate visual effect for Ballina.
- It is recommended that this tree species only be considered as an alternative to *Caesalpinia ferrea* (Leopard Tree) for use as a large tree for road edge planting. It is not considered suitable for use in the centre median.

In relation to *Syzygium* (Lilly Pilly) species and *Waterhousia floribunda* (Weeping Lilly Pilly) –

- These species have previously been considered.
- It is not recommended that *Waterhousia floribunda* (Weeping Lilly Pilly) be used due to its susceptibility to exposure, particularly hot dry winds.
- *Acmena smithii* (Lilly Pilly) is considered to be of good form and scale and would be suitable as a substitution for *Buckinghamia celsissima* (Ivory Curl Flower) as a small tree for road edge planting (in situations constrained by overhead power lines).

Conclusion and Recommendations

Tree selection is difficult because it is not an exact science and opinion is heavily influenced by personal taste. The three (3) tree species recommended in the Master Plan came out of consideration of a large number of options many of which were put forward by Council. Ultimately, the Consultant was requested to recommend a single tree species for each of the three (3) applications identified. Whilst we stand by these recommendations we also put forward the following alternative which may be further considered by Council.

That for large tree planting on the edge of the road *Melaleuca leucadendra* (Weeping Paperbark) be considered as a substitute for *Caesalpinnea ferrea* (Leopard Tree). *Melaleuca leucadendra* (Weeping Paperbark) should not be used in the centre median. It is recommended that only one (1) tree species indigenous

- As an alternative to planting *Brachychiton acerifolius* (Flame Tree) exclusively in the centre median these trees may be interspersed amongst another more evergreen tree species of similar character. In this regard it may be worth considering planting one *Brachychiton acerifolius* (Flame Tree) to every two (2) *Elaeocarpus eumundii* (Smooth Leaved Quandong). It is recommended that not more than two (2) tree species be used in the centre median.
- *Acmena smithii* (Lilly Pilly) or *Cupaniopsis anacardioides* (Tuckeroo) may be considered as alternatives to *Buckinghamia celsissima* (Ivory Curl Flower) as a small tree for use on road edges where overhead power lines are a constraint. It is recommended that only one (1) tree species be selected for use in this situation.

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BALLINA GATEWAY PROJECT – SUPPLEMENTARY REPORT ON ENTRY
BRIDGE BALUSTRADE COLOURS

Background

The Ballina Gateway Project examined measures to improve the entry experience into Ballina following the Pacific Highway Bypass of Ballina. A number of measures were proposed in a Master Plan prepared by King and Campbell (January 2013), following consultation with Councillors and Council staff. The Master Plan was adopted by Council on 26 September 2013.

One of the measures proposed is to paint the existing concrete balustrades on the entry bridges onto Ballina Island a new colour i.e. bright blue.

In November 2013 Council requested King and Campbell provide a colour scheme for the entry bridge balustrades. An illustration of the proposed colour scheme is attached. The proposed colours are:

- Rails (light blue) – Dulux Magnesia Bay PH33H2
- Posts and top surface of base beam (blue grey) – Dulux Undersea P33A5

Purpose of this Report

This proposal, including the attached image, was circulated to all Councillors for comment. A number of comments have been made.

The purpose of this report is to provide discussion regarding the basis of the above recommendation and a response to the comments made by Councillors.

Recommended Colour Scheme

A key principle in the adopted Master Plan is:

1. *Measures should be visually bold and of a scale that is consistent with the visual elements with which they will need to compete for attention;*

This principle applies to all measures in the Master Plan, including the treatment of the bridge entry balustrades.

The existing concrete balustrades are not visually poor in form albeit a bit clunky. In this regard it is considered that the posts are visually too thick in proportion to the rails. It is likely that this 'needed to be' to meet crash safety requirements.

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ENTRY BRIDGE COLOUR SCHEME
(as forwarded to Council on 15 November 2013)
BALLINA GATEWAY PROJECT
PREPARED FOR BALLINA SHIRE COUNCIL BY KING & CAMPBELL JANUARY, 2013



To readdress this visual issue and to be consistent with the key principle of being 'visually bold' the following design approach was adopted:

- The base colour of blue is consistent with many of the colour themes associated with Ballina. It is also consistent with its maritime location.
- That the posts are painted a darker and more neutral colour so that they visually blend into the background – they 'visually recess'
- That the rails are painted a light, bright and bold colour such that they are visually prominent – they 'visually pop out'

We believe the resultant colour scheme is consistent with the design approach. The dual rails become visually prominent and will markedly change the visual form of the balustrade. It is also submitted that this simple and bold approach will enhance the sense of entry onto Ballina Island.

Comments on Proposal

A number of comments were made in regard to the proposal. They included:

- A preference for Hudson Bay blue over the proposed lighter blue – which it is thought may make a more classy statement
- The colour scheme was not considered exciting enough, particularly relating to the blue/grey colour
- A preference for crisp 'white'

Response to Comments

The following response is provided to the comments above:

- Hudson Blue is a bright but darker blue to that proposed for the handrail. If this colour is used on the rails the post colour will need to be made lighter to provide effective contrast. The resultant effect will be that the visual prominence of the posts is not reduced. We attach a photo montage indicating this effect.
- Whether a colour scheme is exciting enough is always subject to taste and opinions vary markedly. In our view, the proposed scheme strikes the right balance in terms of the restrained use of colour to meet the visual objectives demanded by the situation
- The exclusive use of white is not much different from the existing situation. It will appear to be a 'tidy up' rather than present a new approach. This in itself may be seen as an acceptable approach however it will not reduce the visual 'clunkiness' of the balustrade – i.e. the visual thickness of the post

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PROPOSED ENTRY BRIDGE COLOUR SCHEME
(alternative using Hudson Bay Blue)

BALLINA GATEWAY PROJECT

PREPARED FOR BALLINA SHIRE COUNCIL BY KING & CAMPBELL JANUARY, 2013

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Conclusions and Recommendations

Colour schemes almost always attract markedly different responses as evidenced by the comments on the proposed colour scheme to date.

In our opinion what is important is the following colour design approach: - that the base colour for the balustrade is blue, the post and base beam sections are a darker and more neutral blue/grey and the rails are a brighter blue that contrasts markedly with the post colour. We submit that the proposed colour scheme achieves this.

If Council decided to change the actual paint colours specification from that proposed herein we recommend that the above colour design approach be adopted.



Ballina Landscape Entry Treatment Master Plan for the Ballina Gateway Project

Prepared for Ballina Shire Council by King and Campbell
January 2013

Preamble

The Pacific Highway bypass of Ballina has stimulated interest in improving the presentation of Ballina.

Over an approximate eight kilometre section of the old Pacific Highway, including River Street, Kerr Street and Tamarind Drive, the road configuration varies from a two lane road to a four lane road with a large section of River Street incorporating a centre median of approximately three metres wide.

In visual terms the main approach to Ballina is from the west over a flat (river floodplains) landscape. Like many Australian regional towns this entry is characterised by a diverse range of strip development. Much of this development has occurred since the 1970's and is generally of poor quality. This, coupled with predominantly traffic related functions and a proliferation of unregulated signage and power lines, creates a visually poor entry experience.

The Challenge

Much of the development which contributes to this poor entry experience will be difficult to change in the short to medium term. Funding to improve the entry experience is also limited.

The challenge presented by this problem is to identify simple and cost effective measures to improve the visual entry experience.

Key Principles

Key principles which underpin the proposals are:

1. Measures should be visually bold and of a scale that is consistent with the visual elements with which they will need to compete for attention;
2. Elements utilised as part of the scheme should exhibit a consistency of form and colour so as to engender a strong visual identity;
3. The proposals should say something about Ballina;
4. The proposals should, as much as possible, be designed and implemented by local people, to keep money in the town.

The Concept

The following measures are proposed to meet the above principles:

- A comprehensive tree planting program. Large distinctive trees should be planted in road edges, road verges and in the centre median, wherever possible along the entry road route. Smaller trees should be planted where there are conflicts with overhead power lines;
- A sculpture program. Nine (9) locations for entry sign/sculptures or sculptures are identified along the entry route. Sign/sculptures are to be of large scale, unique to Ballina and designed and constructed using regional artists. It is recommended that this program, should be implemented over time through a detailed arts program established specifically for this project;
- Tidying up road verges generally. This work will include the piping and / or regrading of existing table drains to create easier verges to maintain, and more regular grass mowing.
- The reuse of the Big Prawn as an iconic entry element is currently being undertaken as part of the Bunnings Development and is supported;
- Encouraging appropriate future development of properties along the route, including the co-ordination of signage. In this regard, Council are currently preparing a Development Control Plan for the recently established B6 Enterprise Corridor (LEP, 2011).



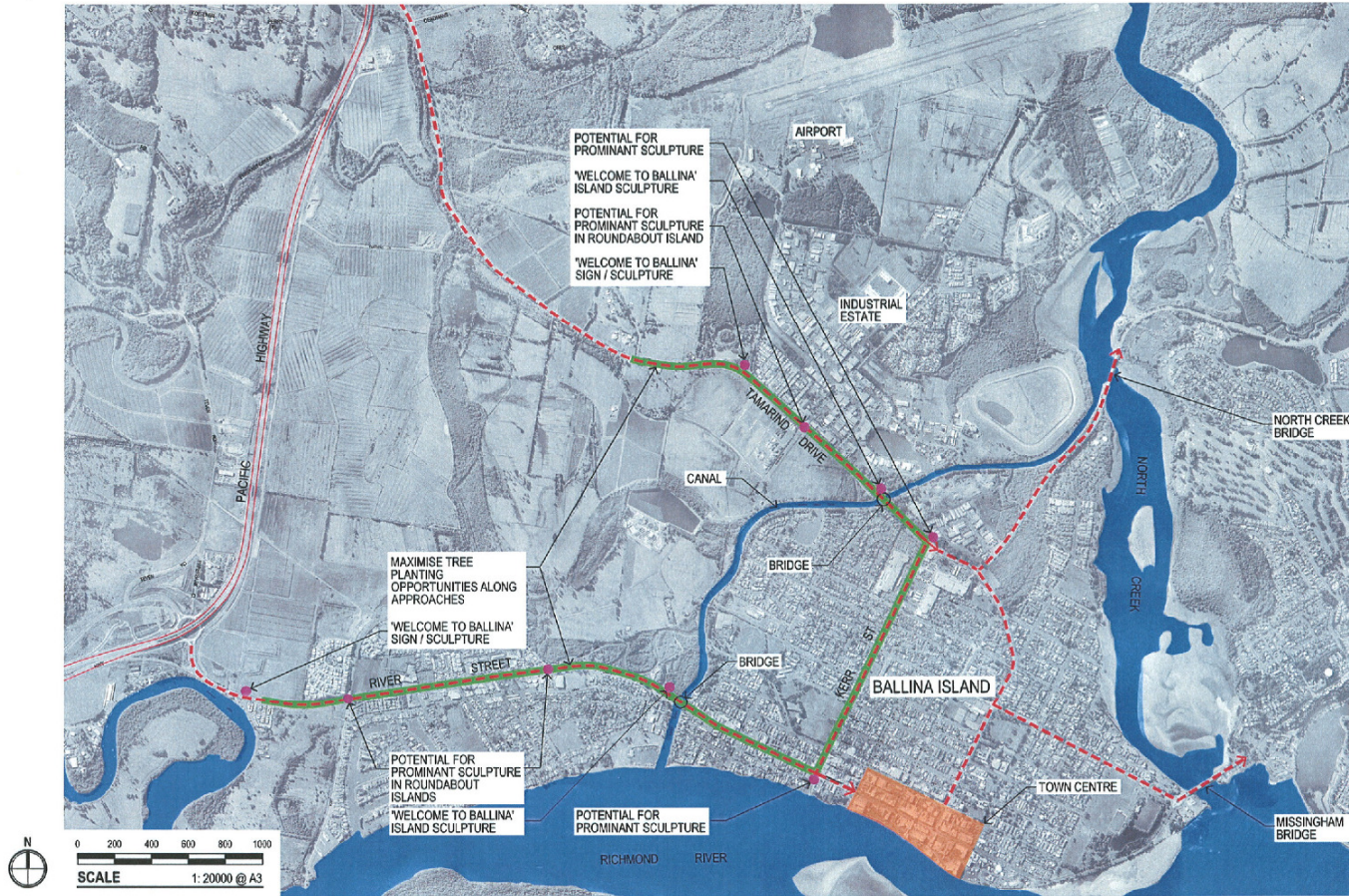
TYPICAL VISUAL EXPERIENCE



CENTRE MEDIAN STRIP SECTION



REUSING THE ICONIC BIG PRAWN



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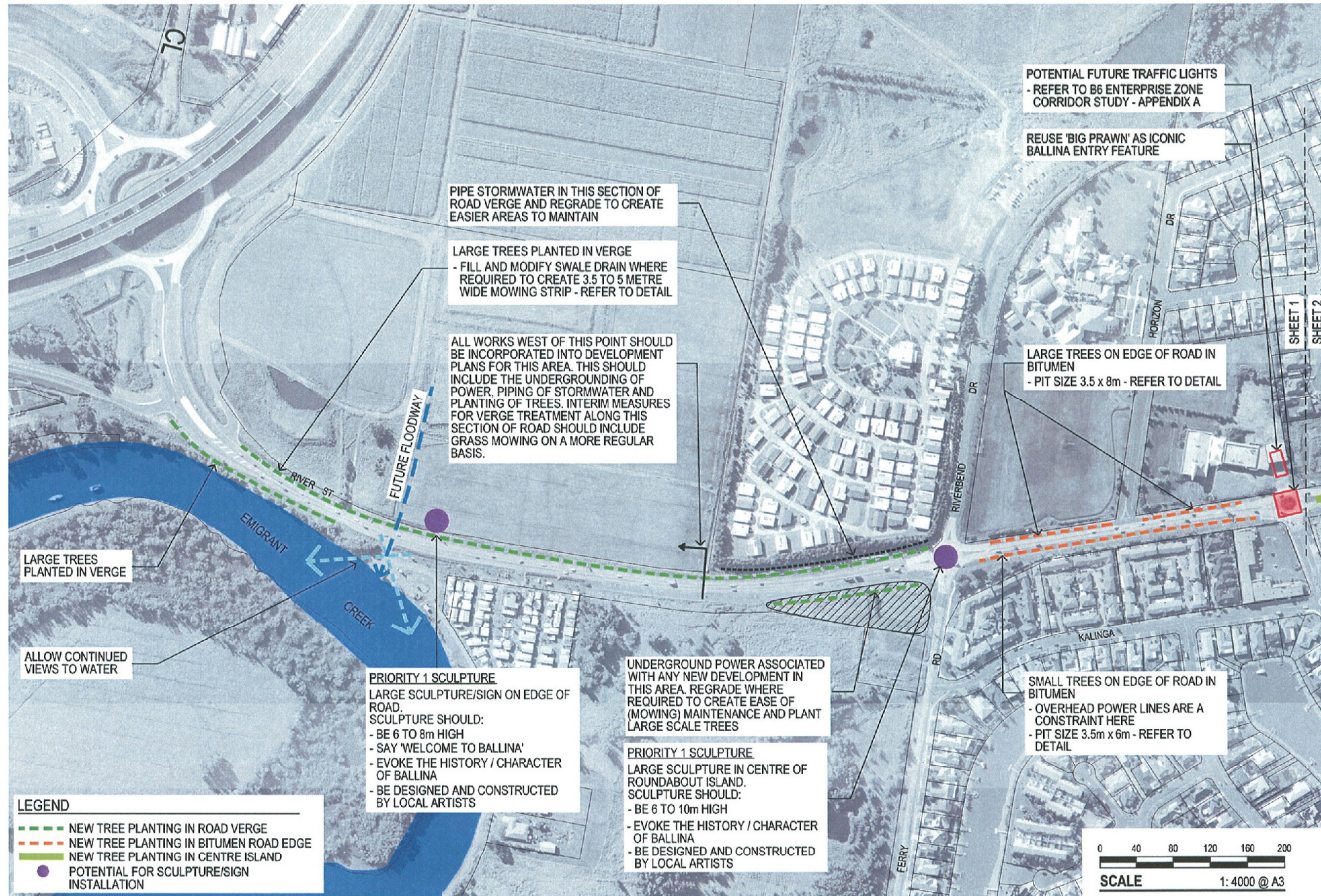
OVERALL CONCEPT
BALLINA GATEWAY PROJECT
 PREPARED FOR BALLINA SHIRE COUNCIL BY KING & CAMPBELL, JANUARY, 2013



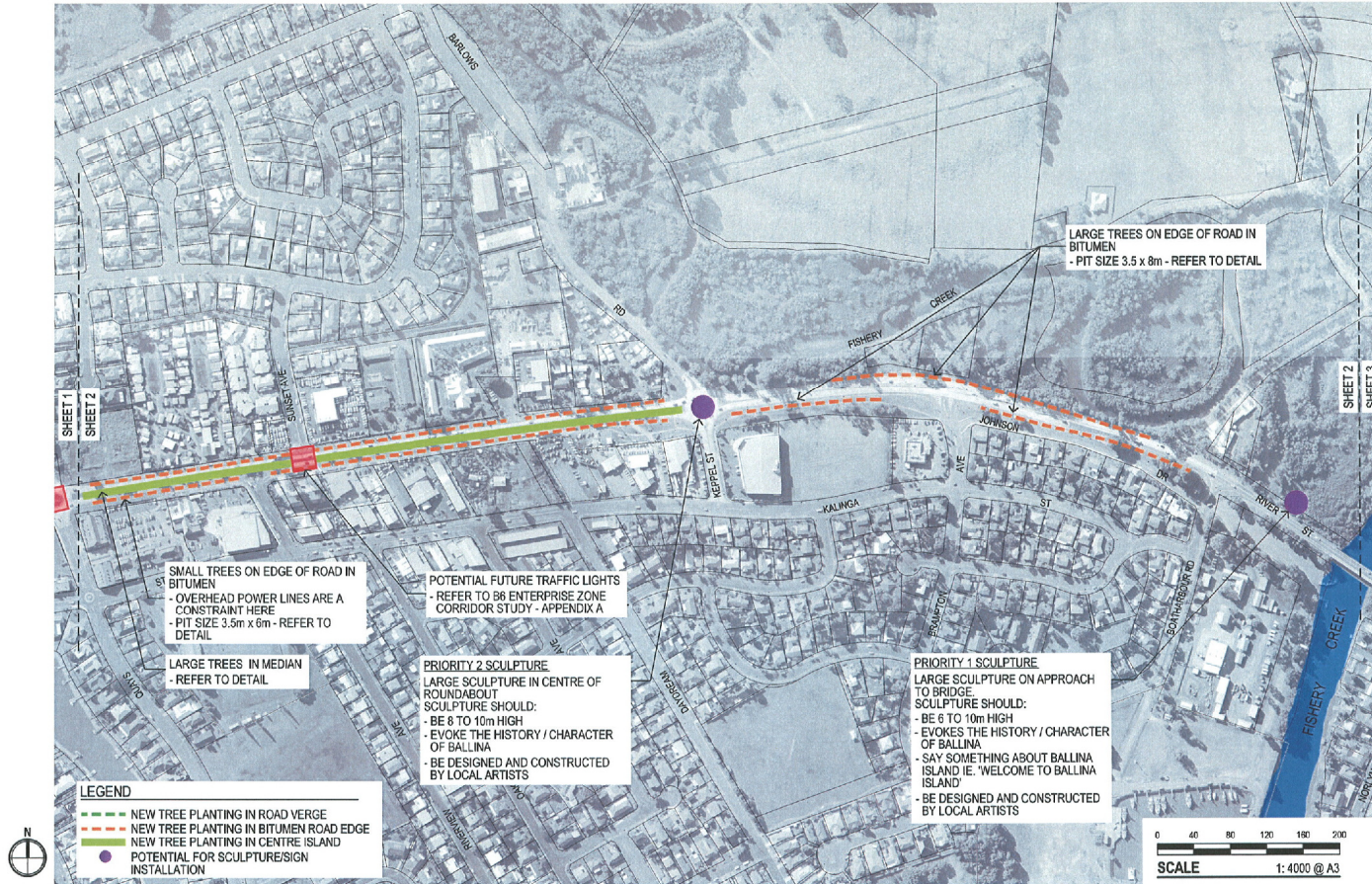


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CONCEPT SHEET GUIDE
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CONCEPT SHEET 2 OF 5

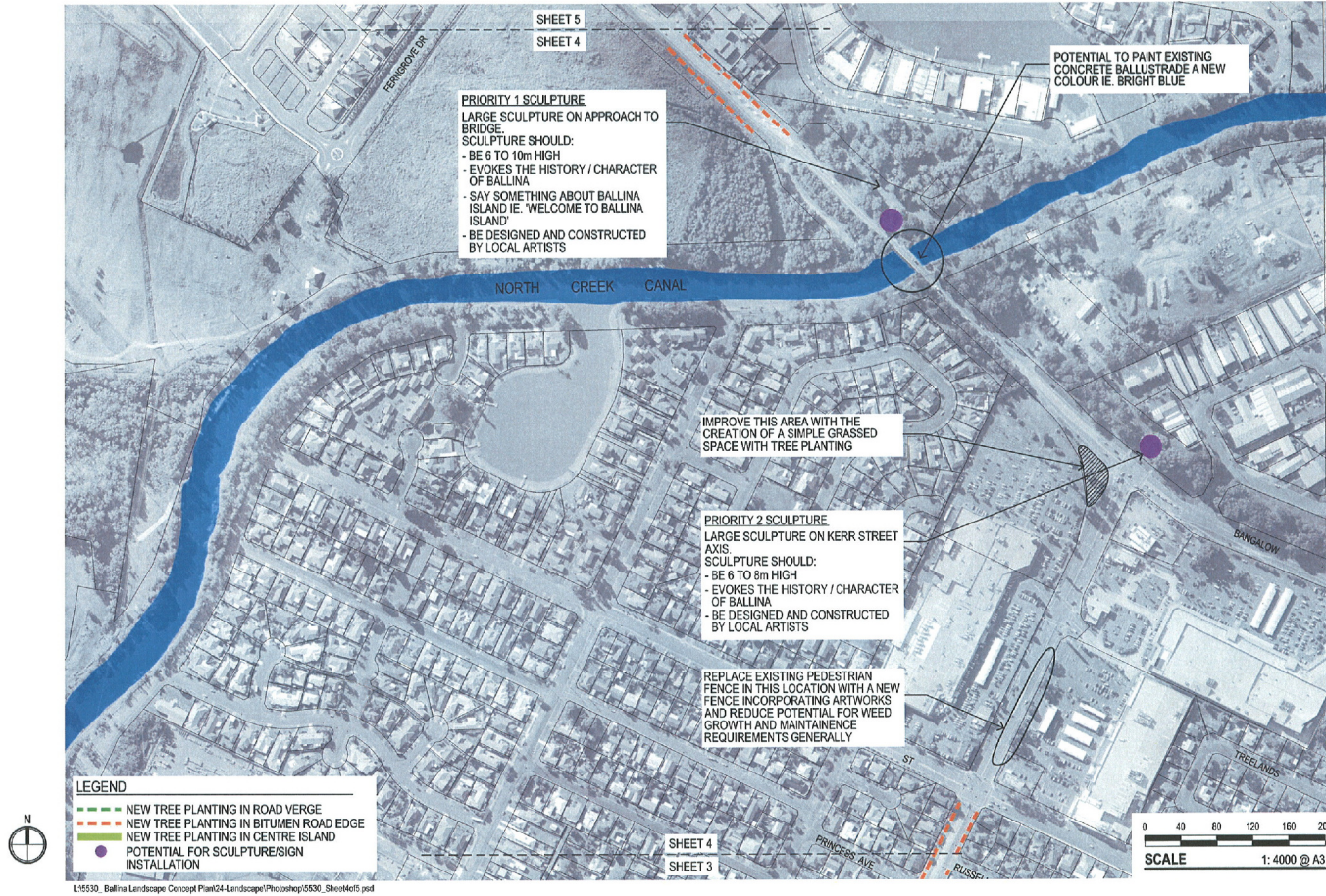
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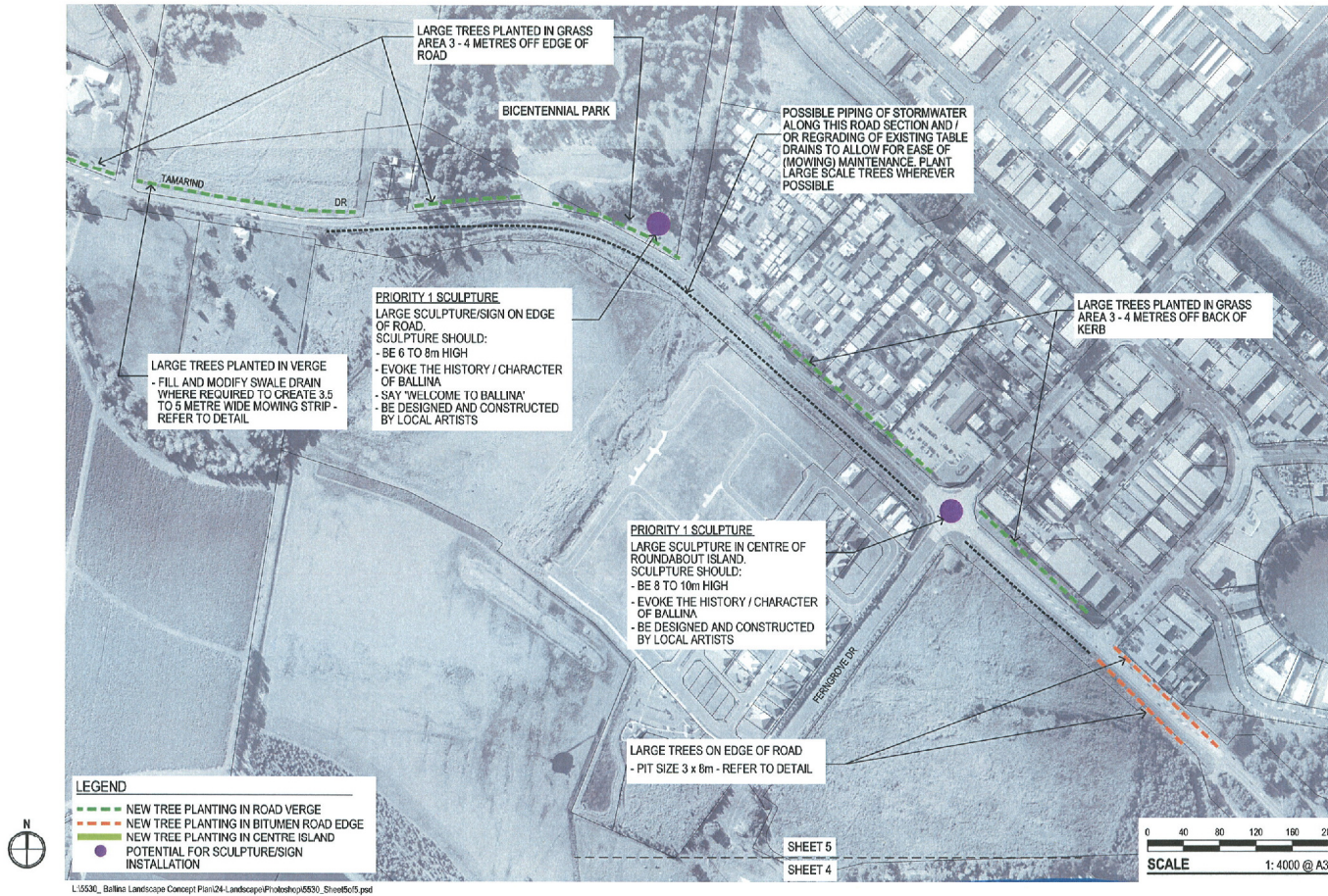
CONCEPT SHEET 4 OF 5

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LARGE TREE FOR CENTRE MEDIAN PLANTING



Brachycthon acerifolius (Flame Tree)

LARGE TREE FOR ROAD EDGE PLANTING



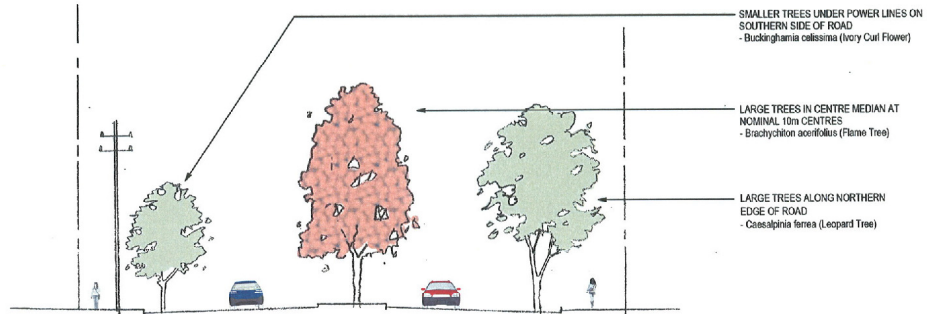
Caesalpinia ferrea (Leopard Tree)

SMALL TREE FOR ROAD EDGE PLANTING

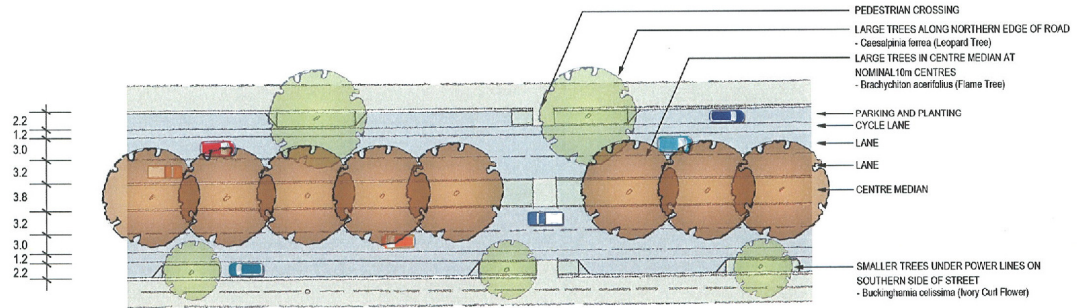


Buckinghamia celissima (Ivory Curl Flower)

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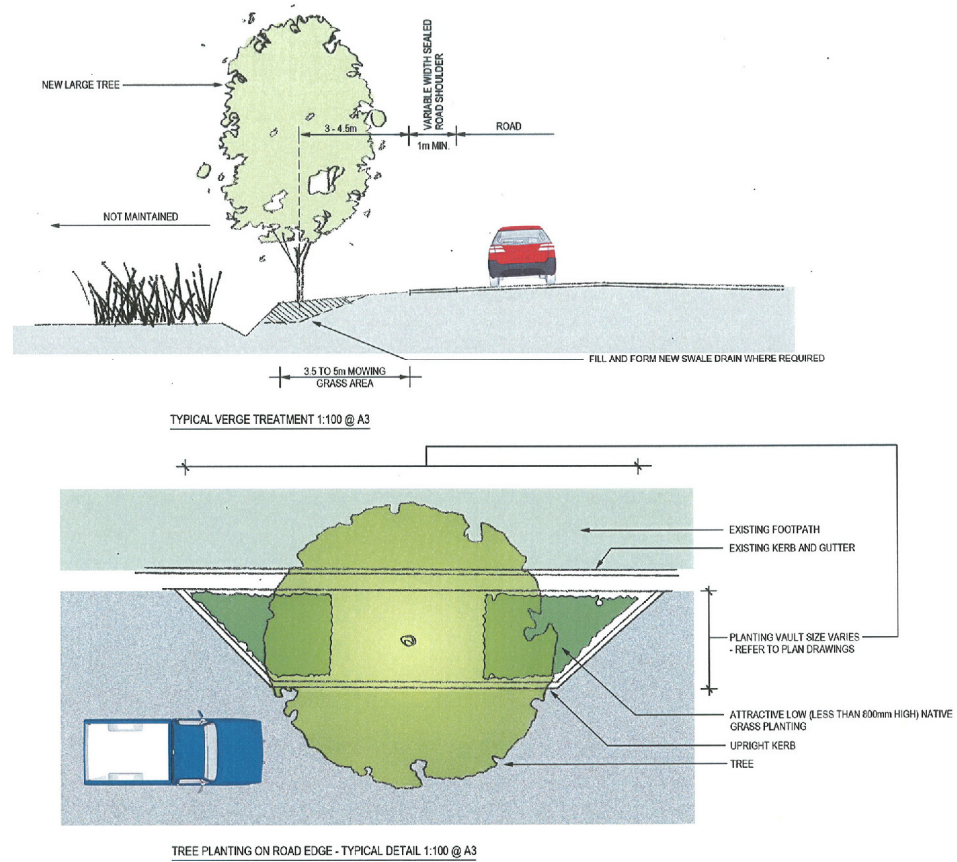
TYPICAL CROSS SECTION 1:200 @ A3



TYPICAL PLAN SECTION 1:500 @ A3

TREE PLANTING AND TYPICAL RIVER STREET SECTION BETWEEN KEPPEL STREET AND QUAYS DRIVE
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TYPICAL DETAILS

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