

### 5.1 Public Domain Elements

#### The Public Domain

The Public Domain links buildings, open spaces and utilities to form the neighbourhood.

The Public Domain creates the framework of the town and is made up of streets, lanes, walkways, cycle links, parks and foreshore areas. Its layout and appearance are central to the legibility of the neighbourhood and to creating its distinct identity.

#### Public Domain Interface

The street frontages of private lots have a strong interface with the public domain, where the separation of public and private may become blurred.

Design of such publicly accessible front gardens and thresholds should reinforce the spatial quality, materials, character and vibrancy of the public domain.



*Belinda Street, Gerringong - a memorable civic street*



*Pacific Avenue, Gerringong - an excellent example of a defined edge street.*



*Manning Street, Kiama - a civic street adjacent a foreshore park*

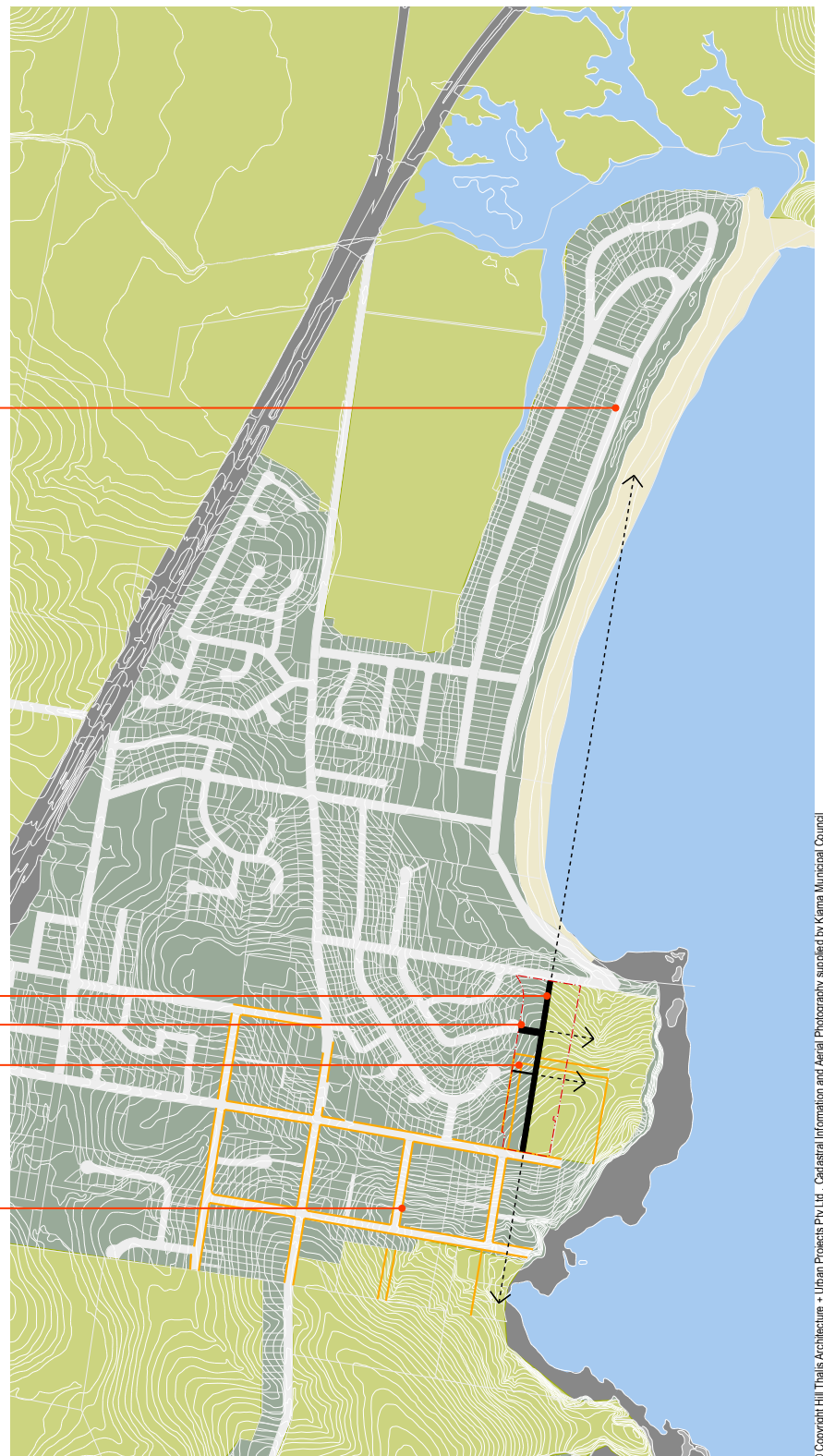
***Local Public Domain Elements providing precedents for the new Edge Street***

Edge Street alignment provides a dramatic vista along Werri Beach to the northern edge of Gerringong

New Edge Street completes the town edge, provides a clear limit to development and enables continuous public access to the Foreshore Reserve

A pedestrian/vehicular link to Osborne Street and a pedestrian connection to Armstrong Avenue, reconnect the Town Centre to the Headland Foreshore Reserve

New street geometry aligns with the remnants of the original Gerringong Town Layout



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Figure - 5.2.(i) - Street Layout

## 5.2 Streets

The creation of new streets within the Noble Lands provides a series of strategic links that address existing deficiencies in the street pattern, and complete the eastern edge of the Gerringong Town.

### 5.2.1 Street Objectives

- (i) Create a new street layout that is integrated with the existing street pattern, that ensures a high degree of connectivity for pedestrians, vehicles and other modes of transport;
- (ii) Transform the existing incomplete subdivision into a demarcated town edge;
- (iii) Provide street reservations that will accommodate -
  - Dedicated pedestrian footpaths;
  - Private cars, emergency vehicles, garbage trucks and servicing vehicles;
  - On-street parking where appropriate;
  - Street tree planting;
  - Street and/or pedestrian lighting;
  - Underground services reticulation;
  - Integrated urban run-off treatment.
- (iv) Provide cycleways and additional pedestrian ways within the Foreshore Reserve;
- (v) Provide a hierarchy of streets with identifiable character in relation to their location and function -
  - New Edge Street - Mitchell Street  
A new civic street that forms the interface between Gerringong Town and the Headland Foreshore Reserve providing continuous public access to the reserve.
  - New Link Street - Osborne Way  
A secondary street, linking Osborne Street to the Edge Street and Headland Foreshore Reserve.
  - Pedestrian/Cycle Links  
Small scale pedestrian and cycle connections from -
    - Armstrong Avenue to the Edge Street and Foreshore Reserve,
    - Little Percy Street to Belinda and Percy Streets, and
    - Geering Street to Werri Beach.

### 5.2.2 Street Controls

- (i) New Streets should be constructed in accordance with the Objectives, Controls and Specifications of Section 5.3.1, 5.3.2, 5.3.3 and 5.3.4 of this Master Plan.



### 5.3.1 Mitchell Street

#### Street Type

Edge Street

#### Character

Mitchell Street will be a significant addition to Gerringong's public domain, defining the town edge with a memorable street that will complete the provision of continuous public access to Gerringong's foreshore.

#### Layout

Mitchell Street is strictly aligned to be parallel to the original town grid, and set 45m east of the western boundary of the "Noble Lands".

Reservation 15m

#### Vehicular Carriageway

#### Mitchell Street Planting

Suggested tree species should -

- Reflect the importance of Mitchell Street within the street hierarchy;
- Grow to a height of min 5m to max 10m in maturity;
- Have a single straight trunk to 1.8m height before canopy commencement;
- Be an Australian native tree;
- Be tolerant of salt laden winds and harsh environmental conditions;
- Require minimal water;
- Be a minimum of 75lt pot size at time of planting, with a trunk caliper of 50 - 80mm;
- Have a root mass, which will cause minimal disturbance to underground services.

#### Tree Placement

Trees should be planted along the centreline of the landscaped verge and spaced evenly along the length of the block equidistant from street lights along the residential frontage.

Trees must be placed a minimum of 8m back from the tangent point of the intersection of Mitchell Street with any cross street to avoid disrupting vehicular sight lines.

Consideration must be given to the location of trees with regard to driveway crossings.

#### Suggested species

- Cupaniopsis anarcardioides
- Podocarpus falcatus
- Podocarpus elatus
- Guioa semiglauc
- Angophora costata

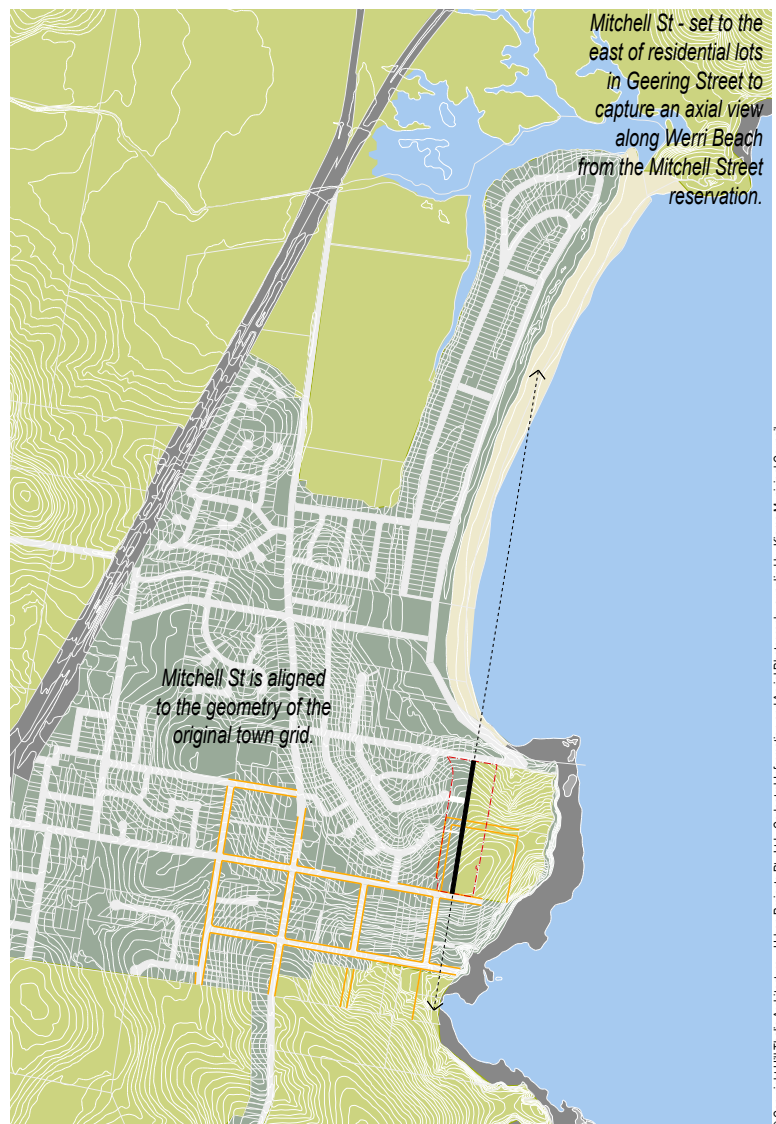


Figure - 5.3.1(i) - Mitchell Street Layout



Figure - 5.3.1(ii) - Podocarpus Elatus

From Botanica - RG Turner, Barnes and Noble 1997;

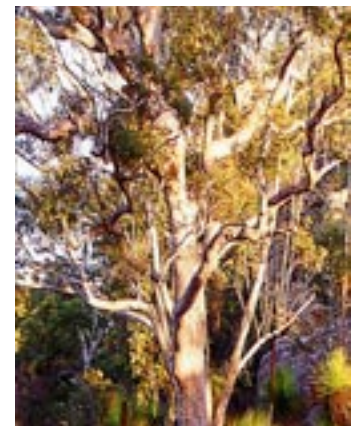


Figure - 5.3.1(iii) - Angophora Costata

From Botanica - RG Turner, Barnes and Noble 1997;

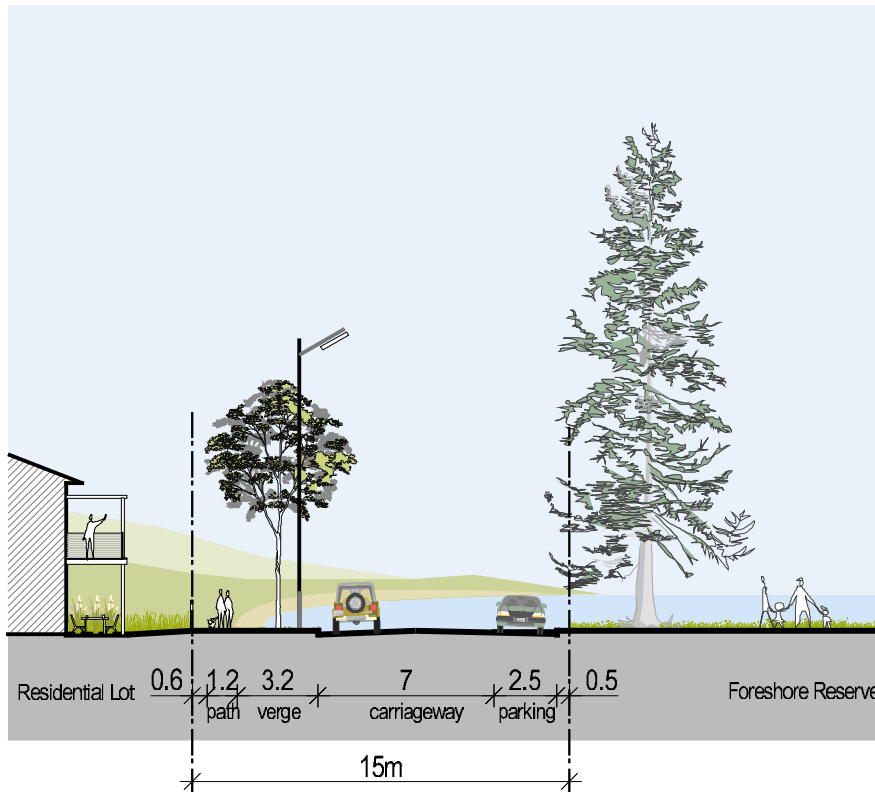


Figure - 5.3.1(iv) - Mitchell Street Plan

Two way vehicular circulation along 3.5m wide carriageways.

#### Car Parking

Dedicated 2.5m wide car parking lane along the Foreshore Reserve frontage.

#### Materials

Carriageways should be black asphalt with upright concrete kerbs to Kiama Council Subdivision DCP specifications.

The parking lane and shared use thresholds should be differentiated by the use of dark grey/black granite setts or Charcoal Rocla Ecotrihex pavers.

#### Footpaths

A dedicated footpath is not required along the reserve frontage. Pathways through the reserve should be based on existing routes and desire lines and be coordinated with future public domain works to the reserve.

A 1.2m wide concrete footpath, with lightly washed surface to expose aggregate should be provided to the residential frontage as indicated.

This pathway should be aligned to provide an unimpeded view along Werri Beach, and link directly to the proposed Werri Beach link to the north.

#### Lighting

Provide street lighting to Australian Standard requirements.

Street lights should be located 10m from the face of kerb at corners, spaced evenly along dimension of the block and coordinated with the placement of street trees.

Any lighting along reserve frontage should be minimal, unobtrusive and coordinated with future public domain works within the reserve.

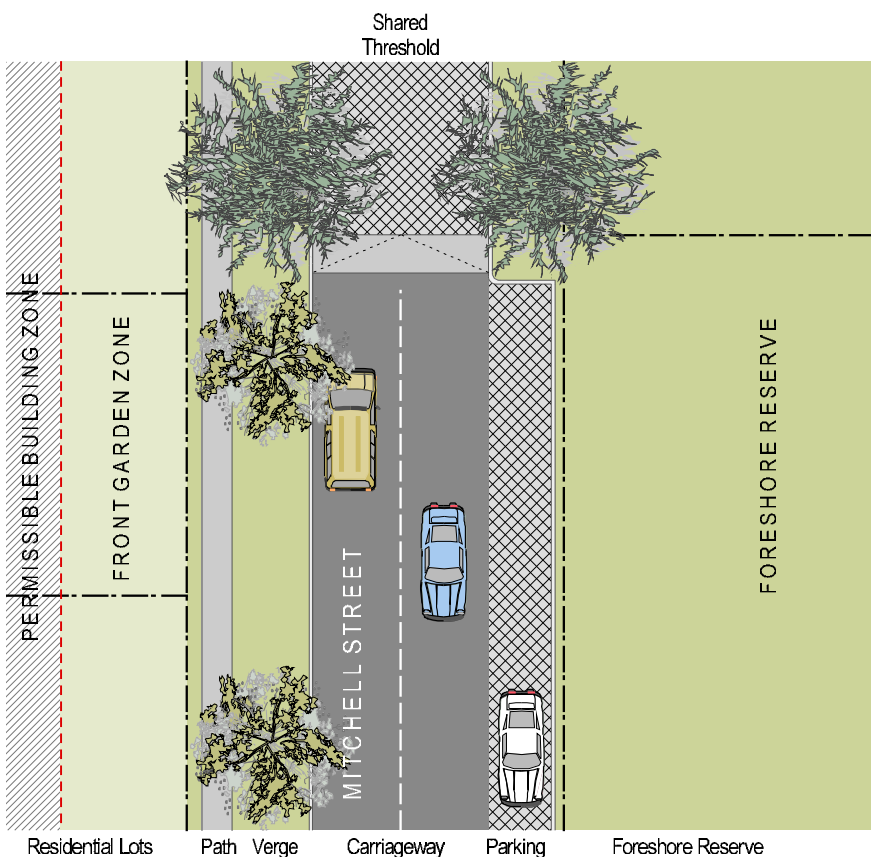


Figure - 5.3.1(v) - Mitchell Street Section



### 5.3.2 Osborne Way

Type Link Street

Character

Osborne Way is a secondary street linking Osborne Street to Mitchell Street, thus providing vehicular, pedestrian, cycle connections and vistas through to the Headland Reserve.

Layout

Osborne Way is set out from the southern alignment of the existing Osborne Street carriageway.

Reservation 14m

Osborne Street Planting

Suggested tree species should -

- Reflect Osborne Street's secondary position within the street hierarchy;
- Grow to a height of min 4m to max 7m in maturity;
- Have a single straight trunk to 1.2m height before canopy commencement;
- Be an Australian native tree;
- Be a minimum of 75lt pot size at time of planting, with a trunk caliper of 50 - 80mm;
- Have a root mass, which will cause minimal disturbance to underground services.

Tree Placement

Trees should be placed within the street reservation not less than 70mm from back of kerb, and not less than 1200mm from the property boundary. Trees should be spaced evenly along the length of the block equidistant from street lights.

Trees must be placed a minimum of 8m back from the tangent point of the intersection of Osborne Way with any cross street to avoid disrupting vehicular sight lines.

Consideration must be given to the location of trees with regard to the placement of underground services.

Suggested species

- *Brachychiton acerifolius*
- *Backhousia citriodora*
- *Tristania laurina*
- *Waterousia floribunda*

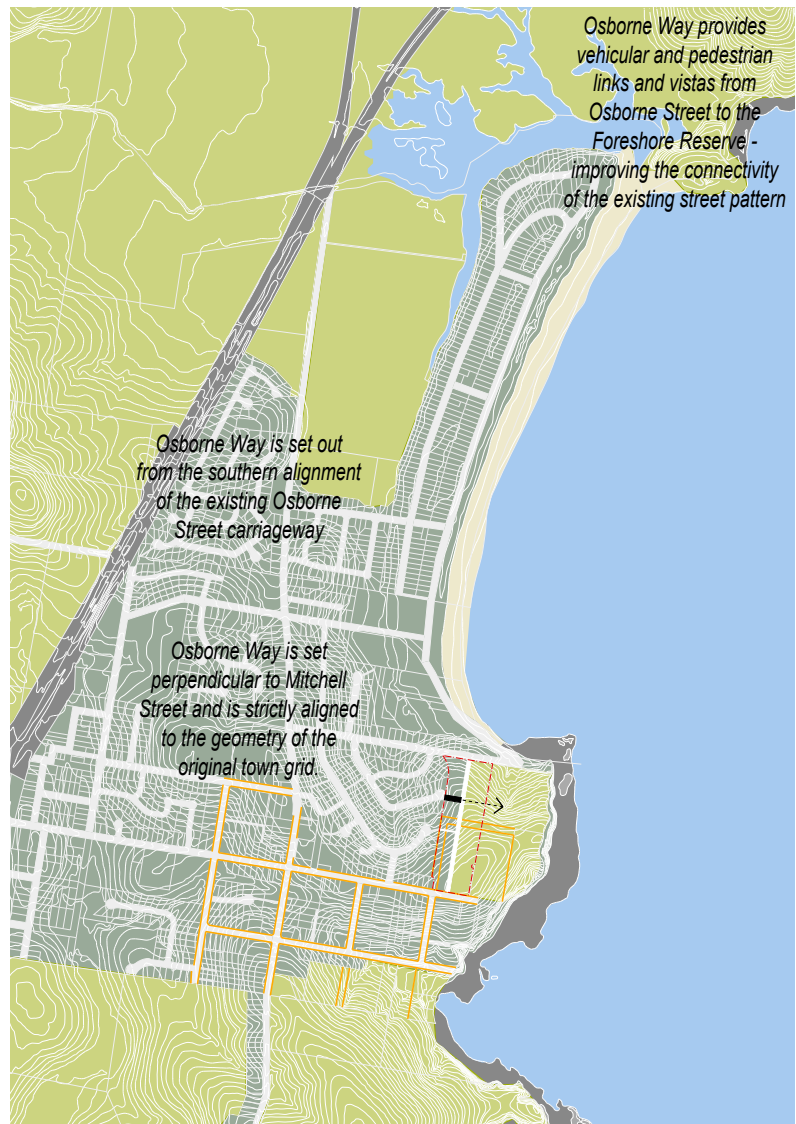


Figure - 5.3.2(i) - Osborne Way Layout



Figure - 5.3.2(ii) *Brachychiton acerifolius* + *Tristania laurina*

From Botanica - RG Turner, Barnes and Noble 1997;

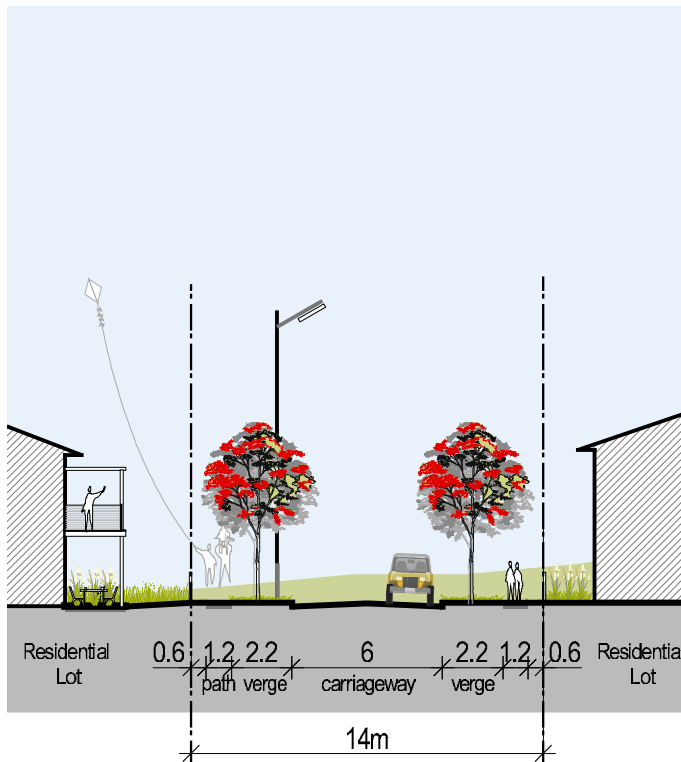


Figure - 5.3.2(iii) - Osborne Way Section

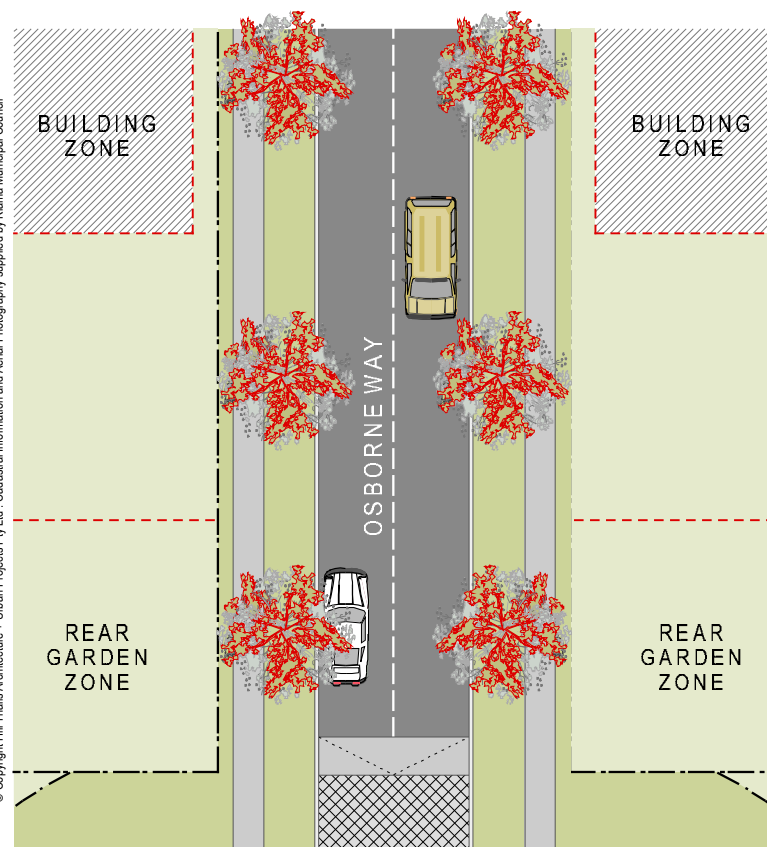


Figure - 5.3.2(iv) - Osborne Way Plan

#### Carriageway

Two way vehicular circulation along 3m wide carriageways.

#### Car Parking

Car parking is prohibited in Osborne Way.

#### Materials

Carriageways should be black asphalt with upright concrete kerbs to Kiama Council Subdivision DCP specifications.

Shared use thresholds should be differentiated by the use of dark grey/black granite setts or Charcoal Rocla Ecotrihex pavers.

#### Footpaths

A 1.2m wide concrete footpath, with lightly washed surface to expose aggregate should be provided to both street frontages as indicated.

#### Lighting

Provide street lighting to Australian Standard requirements.

Street lights should be located 10m from the face of kerb at corners, spaced evenly along dimension of the block and coordinated with the placement of street trees.

Figure - 5.3.4(i) Suggested Species - Links



Dianella sp.



Pennisetum sp.



Phorium sp.



Phorium sp.



Westringia sp.

From Botanica - RG Turner, Barnes and Noble 1997

### 5.3.3 Pedestrian/Cycle Ways

#### Type Links

#### Character

Pedestrian links and cycle ways are a small scale, but critical part of the public domain. They provide strategic connections from Armstrong Avenue to Mitchell Street and the Foreshore Reserve.

These links maximise permeability and access for pedestrians and cyclists through large urban blocks.

#### Layout

Armstrong Way is set out from the centre line of the existing pedestrian link in Armstrong Avenue, and runs perpendicular to the site boundary.

The Werri Beach link is set out in strict alignment with the footpath from Mitchell Street.

#### Reservation

Armstrong Way - 5m

Werri Beach Link - 3m minimum

#### Materials

Through site links should be conceived as landscape connections, linking existing residents to the Foreshore Reserve and Werri Beach. They should have a strong landscape character and include robust, weathered materials of utilitarian character such as timber, washed concrete and the like, and be integrated with low scale planting of coastal species/grasses where appropriate.

#### Paths

Foot paths - minimum dimension of 1m.

Shared foot/cycle paths - minimum dimension 2.5m.

#### Landscape Planting

Suggested groundcover and shrub species should -

- Be consistent with seaside and headland planting;
- Be chosen for colour and form;
- Require minimal maintenance, in the form of dead heading or pruning;
- Be an Australian native;
- Be tolerant of salt laden winds, harsh environmental conditions;
- Require minimal water, and
- Be a minimum 150mm pot size at time of planting.

Landscape planting must not obscure visibility through pedestrian/cycle links.

#### Suggested Groundcover species

Scaveola 'Fanfare' - Hibbertia scandens - Westringia sp - Prostrate coastal species.

#### Suggested Ornamental grasses

Pennisetum sp - Poa sp - Dianella sp - Themeda australis

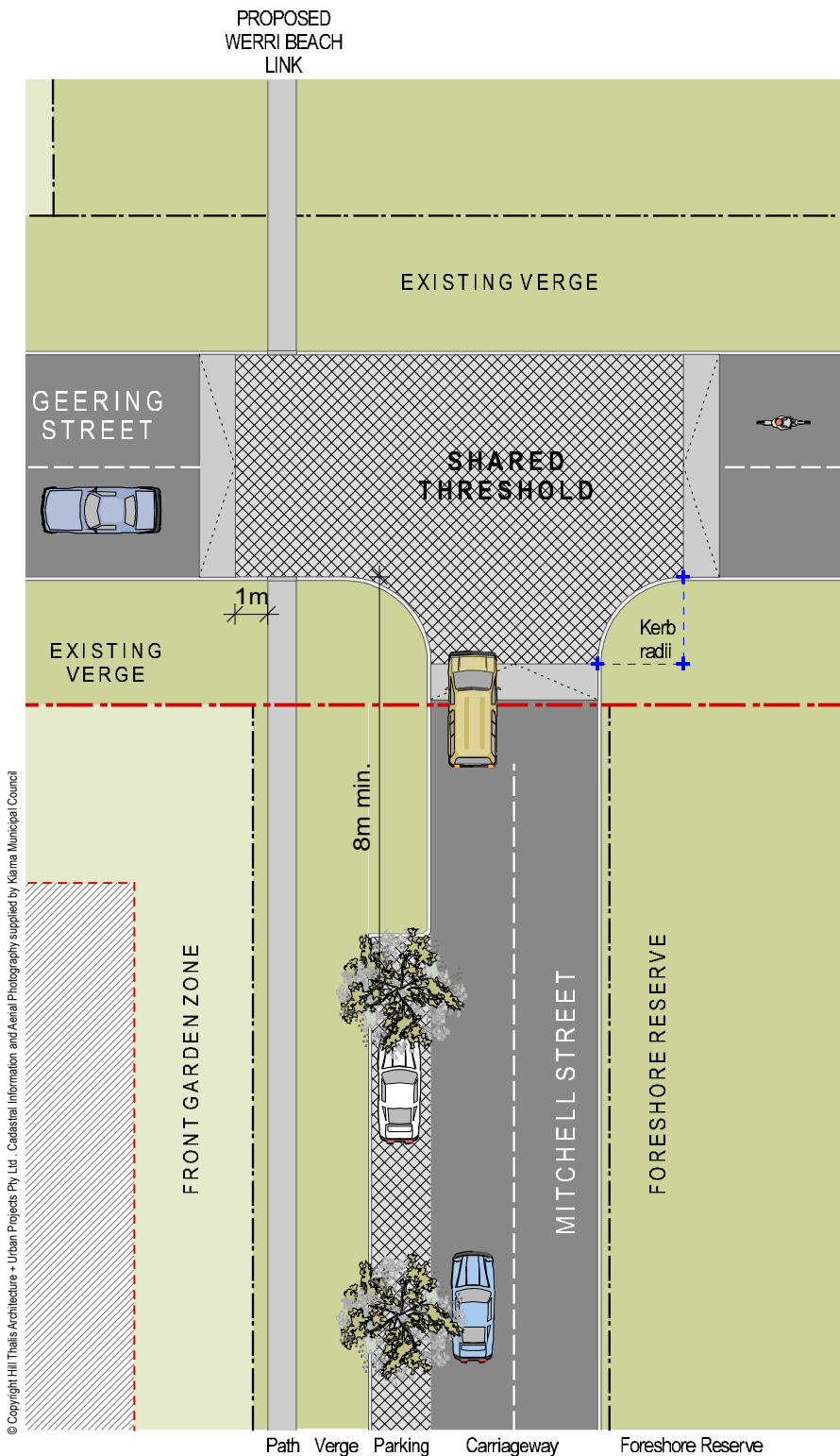
#### Suggested shrub species

Anigozanthus 'Bush Gems and species - Phormium dwarf species - Syzygium dwarf sp - Lomandra 'Tanika' and compatible species - Westringia sp.

#### Lighting

Provide pedestrian pole lighting at appropriate intervals. Consider the requirements for adequate public safety and minimisation of light spill to adjoining areas.





### 5.3.4 Geering Street Intersection

#### Character

The Geering Street Intersection should be managed appropriately to ensure safety for vehicular and pedestrian traffic entering and leaving the site.

The design of the intersection should prioritise pedestrian movements and provide pedestrians with a continuous line of travel.

#### Layout

Raised threshold set out from edge of eastern kerb radius to a min. 1m west of the alignment of the Mitchell Street footpath.

Threshold to extend to southern edge of kerb radii on Mitchell Street.

#### Car Parking

No on street parking is permitted within 15m of the Geering Street intersection.

#### Materials

Construct raised thresholds of materials that clearly distinguish them from carriageways. Ensure good sightlines to all approaches.

Carriageways should be black asphalt with upright concrete kerbs to Kiama Council Subdivision DCP specifications.

Shared use thresholds should be differentiated by the use of dark grey/black granite setts or Charcoal Rocla Ecotrihex pavers.

Approach ramps should be constructed in lightly washed exposed aggregate concrete. Provide 100mm rise and 1500mm run to all approaches.



Beachfront



Ocean pools



Headland Foreshore Reserve



Cemetery and Boat Harbour

**Gerringong's diverse foreshore areas****5.4 Landscape Strategy**

The Gerringong coastline's dramatic natural features are a highly valued local and regional environmental resource.

The dedication of part of the Noble Lands as an extension of the Gerringong Headland Foreshore Reserve is a significant addition to the public domain.

This dedication completes the provision of public access to Gerringong's foreshore and provides an opportunity for Government Agencies to develop a coordinated Plan of Management for Gerringong's coastal interface.

Improvements to the dedicated public reserve will not form part of the subdivision works. Improvements to this land will be carried out over time having regard to the objectives and controls below. Such works will be funded by General Section 94 Plans or budget programs.

**5.4.1 Landscape Strategy Objectives**

- (i) Protect and preserve the natural, cultural and historic features of Foreshore areas, including but not limited to -
  - topographical/geological features;
  - existing scenic quality;
  - Werri beachfront;
  - Werri and Boat Harbour ocean pools;
  - maritime history of Boat Harbour;
  - local history of Cemetery site;
  - sites of aboriginal activity;
  - cultural associations with the work of artists, in particular Lloyd Rees.
- (ii) Maintain natural processes within foreshore areas with minimal interference;
- (iii) Encourage appropriate recreational uses and visitor behaviour within Foreshore areas;
- (iv) Provide discretely located and carefully designed visitor facilities and parking areas;
- (v) Take reasonable steps to ensure the safety of visitors;
- (vi) Encourage community appreciation of Foreshore areas, involving neighbours and local communities in the protection of the coastal zone.

**5.4.2 Landscape Strategy Controls**

- (i) Council to consider the preparation of an integrated Plan of Management for Gerringong's Foreshore, including Werri Lagoon, Werri Beach, the Headland Foreshore Reserve, Cemetery and Boat Harbour.
- (ii) Identify appropriate uses for foreshore areas that preserve their specific character and protect their natural, cultural and historical features.
- (iii) Limit permissible uses and carefully control development along the foreshore interface.

## 5.5 Public Domain Character + Materials

The character of the Gerringong Headland is significantly formed by its dramatic siting and topography, which provides vistas along Werri Beach, over Omega Flat to the Omega Hills and dominant Mount Saddleback - Mount Pleasant ridge.

Landscape elements of sand, sea, exposed basalt cliffs and exposed grassy slopes provide the dominant visual setting, which should be enhanced by a simple palette of robust materials.

Gerringong has a relaxed and informal seaside ambiance, which should extend to the Foreshore Reserve interface, and be reflected in the design of adjoining streetscapes and architectural elements.

### 5.5.1 Objectives

- (i) Develop a specific character for the public domain that contributes to a particular identity for the Headland;
- (ii) Provide public domain elements that are of a high quality aesthetically and functionally;
- (iii) Reinforce the existing character of the exposed coastal edge by judicious use of materials and finishes;
- (iv) Use materials that are durable, robust and utilitarian, that are easily maintained;
- (v) Consider the effects of weathering on materials, that produce integral muted colours and textures;
- (vi) Integrate public domain materials with proposed finishes in the Headland Foreshore Reserve;
- (vii) Use public domain elements and materials to reinforce the proposed street hierarchy;
- (viii) Unify the area through consistent materials and generic details;
- (ix) Allow special details, materials and elements in particular places to reinforce specific local elements and important spaces within the hierarchy;
- (x) Provide safe and comfortable access for all users.



sky  
sea



grass



sand



basalt



*'..To stand on a south coast headland and look westward towards the majestic landscape, to hear the boom of the surf and feel the elating sea surging around one, is to know a sensation approaching that of ecstasy...'*  
Lloyd Rees, *The Small Treasures of a Lifetime*, Ure Smith 1969, Collins 1984, 1988, 1995

Landscape palette and elements



*Lightly washed reinforced concrete**Durable Australian Hardwoods**Local Stone**Concrete and timber elements***5.5.2 Controls****(i) Streets**

Provide surface treatments of consistent material, texture and colour to relate to the dominant scale and character of the Headland.

**Carriageways**

Black asphalt with concrete upright kerbs to Subdivision DCP requirements.

**Parking Lanes/Shared use thresholds**

Charcoal Rocla ecotrihex pavers or dark grey granite setts.

**Footpaths/Driveway Crossings**

Concrete with lightly washed surface to expose aggregate.

**Verges**

3.2m wide verges with Sir Walter Buffalo turf to visually extend the grassy expanse of the headland.

No shrubbery or planting is permitted within the public domain with the exception of street trees to the specifications in Section 5.3 of this Master Plan.

**(ii) Pedestrian links, cycle ways, pathways + stairs**

Provide robust, simply constructed elements to suit the coastal environment and the relaxed informal character of the reserve and beach.

Colours should be subdued, and the use of materials with integral colours and textures enhanced by weathering is encouraged.

Use of the following materials is permitted -

**Pathways and Cycleways**

- Lightly Washed Concrete with exposed aggregate
- Asphalt/Bitumen with concrete or local stone trim
- Australian Hardwood decking
- Stabilised gravel over a compacted base

**Service covers**

- Telstra approved stainless steel frame and pit cover, with concrete infill to match adjacent pathway surface.

**Steps**

- Concrete
- Australian Hardwood
- Stabilised gravel, with concrete trim to leading edges
- Local Stone

**Stairways**

- Australian Hardwoods
- Galvanised or Stainless Steel

Balustrades barriers and railings

- Australian hardwood
- Galvanised or Stainless steel

(iii) Lighting

Street Lighting

Standard Energy Australia Galvanised steel street lighting poles.

Pole Lighting

Bega 8082 Pole Lights or similar

(iv) Landscape Planting

Street tree planting should reinforce the hierarchy of streets proposed for the site and should be in accordance with the specifications in Section 5.3/

Norfolk Island Pine planting should be used only to supplement the existing Belinda Street planting, and to mark elements of the original town plan as indicated in the Master Plan on Figure 4.2

Landscape planting in the public domain interface should be in accordance with the Landscape Guidelines contained in DCP 31. Planting in front garden areas should respond to the open and exposed character of the Foreshore Reserve.

(v) Medians, refuges, pram ramps

- Lightly washed exposed aggregate concrete
  - Upright concrete kerb edging
  - Planting of appropriate landscape species
- (Refer DCP 31 - Landscape Guidelines)

(vi) Prohibited Materials

The following items are prohibited in the public domain and public domain interface -

- Chain mesh, sheet metal fencing and the like;
  - Unit paving, Pebblecrete, Stencilled concrete treatments and the like;
  - Planting of inappropriate exotic landscape species
- (Refer to DCP 31 Landscape Guidelines for a list of appropriate species).



Figure 5.6 (i)  
Crime prevention deficiencies in the existing street layout

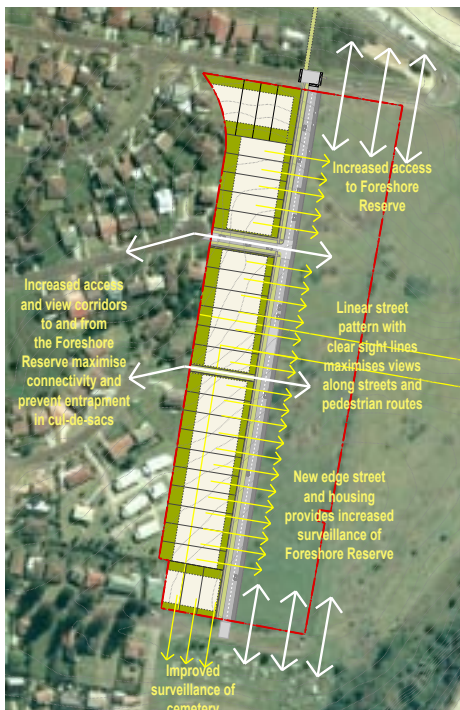


Figure 5.6 (ii)  
Crime prevention initiatives in the new street layout

## 5.6 Crime Prevention through Environmental Design

Crime Prevention through Environmental Design involves strategies that promote the development of safe residential areas and public spaces. The design of all public areas should limit opportunities for crime.

### 5.6.1 Objectives

- (i) Configure development of the Noble Lands to provide overlooking and surveillance of all public open spaces, streets and pedestrian/cycle links;
- (ii) Provide a legible and highly connective public domain that prevents entrapment in enclaves, isolated pockets, dead-ends and cul-de-sacs;
- (iii) Create a rational, orthogonal street pattern that provides clear sight lines along the length of all streets;
- (iv) Create a New Edge Street to provide a high level of surveillance of the Foreshore Reserve and replace the existing side and rear fences that currently form the foreshore interface;
- (v) Clearly articulate the division between the public and private domain, without resorting to intrusive physical barriers;
- (vi) Provide the public domain with a strong physical connection to future housing to foster a strong communal interest in the public space.

### 5.6.2 Controls

- (i) Design streets and public domain elements to meet the Objectives, Controls, alignments, and specifications in Section 5.2, 5.3 and 5.5 of this Master Plan;
- (ii) Provide lighting to all streets, pedestrian and cycleways to Australian Standards requirements and to the specifications in Section 5.3 and 5.5 of this Master Plan;
- (iii) Provide on-street parking along the Edge Street to meet the needs of visitors to the Foreshore Reserve and eliminate the need for consolidated car parking areas;
- (iv) Provide a well designed and attractive public domain to ensure that public spaces are well utilised and cared for;
- (v) Design public domain elements to be robust, easily maintained and graffiti resistant;
- (vi) Align new pedestrian/cycle links with existing Osborne Street and Armstrong Avenue connection points to provide clear sightlines from existing streets to the Foreshore Reserve;
- (vii) Provide strong built frontage to the New Edge Street to maximise casual surveillance of the Foreshore Reserve;
- (viii) Provide clear sightlines to the Foreshore Reserve by avoiding the placement of garages along the Edge Street frontage wherever possible;
- (ix) Provide a clear delineation of the public and private domain through the careful design of the public domain interface, including front gardens, entry sequences, fences, landscape planting, entry porches and the like.



## 5.7 Stormwater

State Environmental Planning Policy 71 requires that a consent authority refuse consent to any development within the coastal zone if the development

*"...will, or is likely to, discharge untreated stormwater into the sea, a beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform." SEPP 71 - Coastal Protection.*

Accordingly, stormwater from development on the Noble Lands must be appropriately managed and treated to protect the coastal edge and meet current best practice in terms of Water Sensitive Urban Design.

### 5.7.1 Objectives

- (i) Ensure that the strategy for treatment and discharge of stormwater for development on the Noble Lands complies with the following -
  - State Environmental Planning Policy 71 - Coastal Protection;
  - Kiama Municipal Council Stormwater Management Plan, and
  - Kiama Municipal Council Drainage Code.
- (ii) Incorporate Water Sensitive Urban Design practices wherever possible;
- (iii) Provide for the detention, retention and controlled re-use of runoff through the use of raintanks and infiltration trenches, reducing reliance upon town water;
- (iv) Ensure that all runoff from the Noble Lands is directed westwards. Prevent all runoff in an easterly direction leading to Werri Beach, rock platforms, edge pools or the sea.

### 5.7.2 Controls

- (i) Prepare a Stormwater Master Plan to accompany all Subdivision Development Applications developed in accordance with the following policies and planning instruments -
  - State Environmental Planning Policy 71 - Coastal Protection;
  - Kiama Municipal Council Stormwater Management Plan, and
  - Kiama Municipal Council Drainage Code.
- (ii) Provide a new stormwater conduit along the northern side of the Geering Street reservation to channel stormwater in a westerly direction from the Noble Lands to the head wall outlet of the existing drainage channel in Geering Street;
- (iii) Provide water quality treatment in the form of at-source capture of solid pollutants with filter inserts on all stormwater pits;
- (iv) Provide water quality treatment for road runoff through a pit and infiltration pipe system to capture road first flush;
- (v) Maximise pervious areas on site in accordance with the Landscaped Areas Objectives and Controls in Section 6.5 of this Master Plan;
- (vi) Provide for the detention of peak flows through the use of raintanks and infiltration trenches;
- (vii) Provide 10kL raintanks to detached dwellings with re-use for toilet flushing, hot water, laundry and irrigation. (Hot water re-use subject to confirmation by relevant regulatory bodies). Raintanks should be located in private garden areas and be screened from the public domain.

*Stormwater Initiatives provided by STORM Consulting Pty Ltd, from report prepared for Cowman Stoddart Pty Ltd entitled "Stormwater Master Plan for the Proposed Gerringong Headland Subdivision" July 2003.*