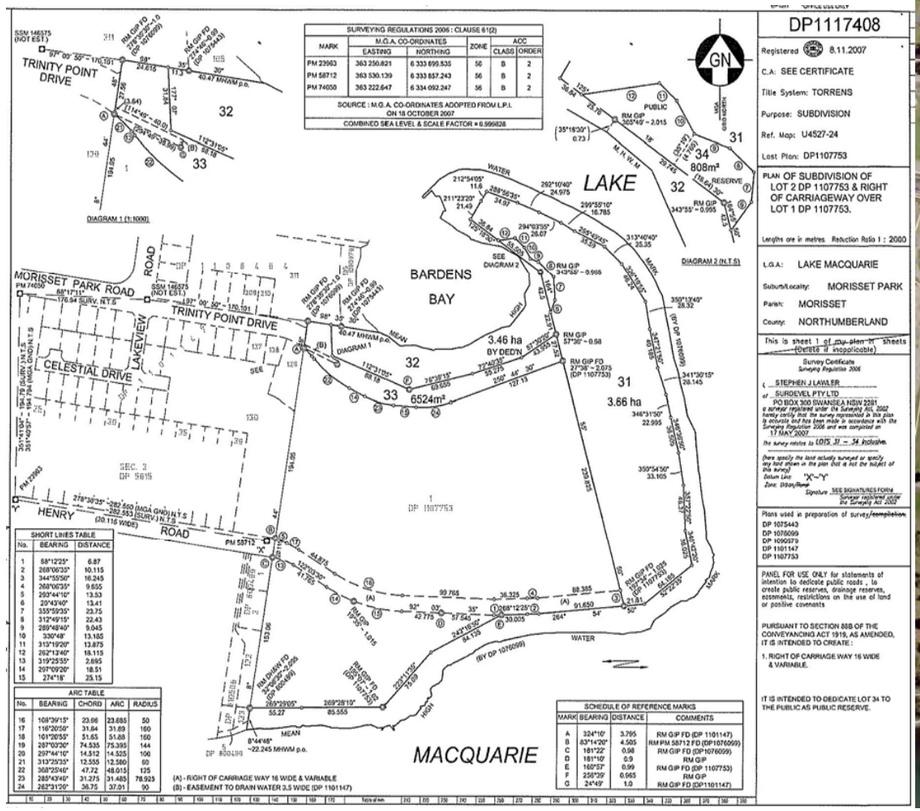
A4 THE SITE + ANALYSIS

Tourism zoned Site Area 3.66ha, primarily NS long axis of some 400m and some 85m width (variable)

Perimeter Foreshore Open Space zoned Acquisition Area 3.46ha. Foreshore edge, with variable widths - minimum 20m along southern & eastern foreshore (zoned, defined and to be acquired separate to this project). Only parts of this area are included within the site.

Site Area (excluding Crown Land) is 3.94ha.

Lake Based Marina Study Area (Crown Land) is 9.34ha



Site area and dimensions

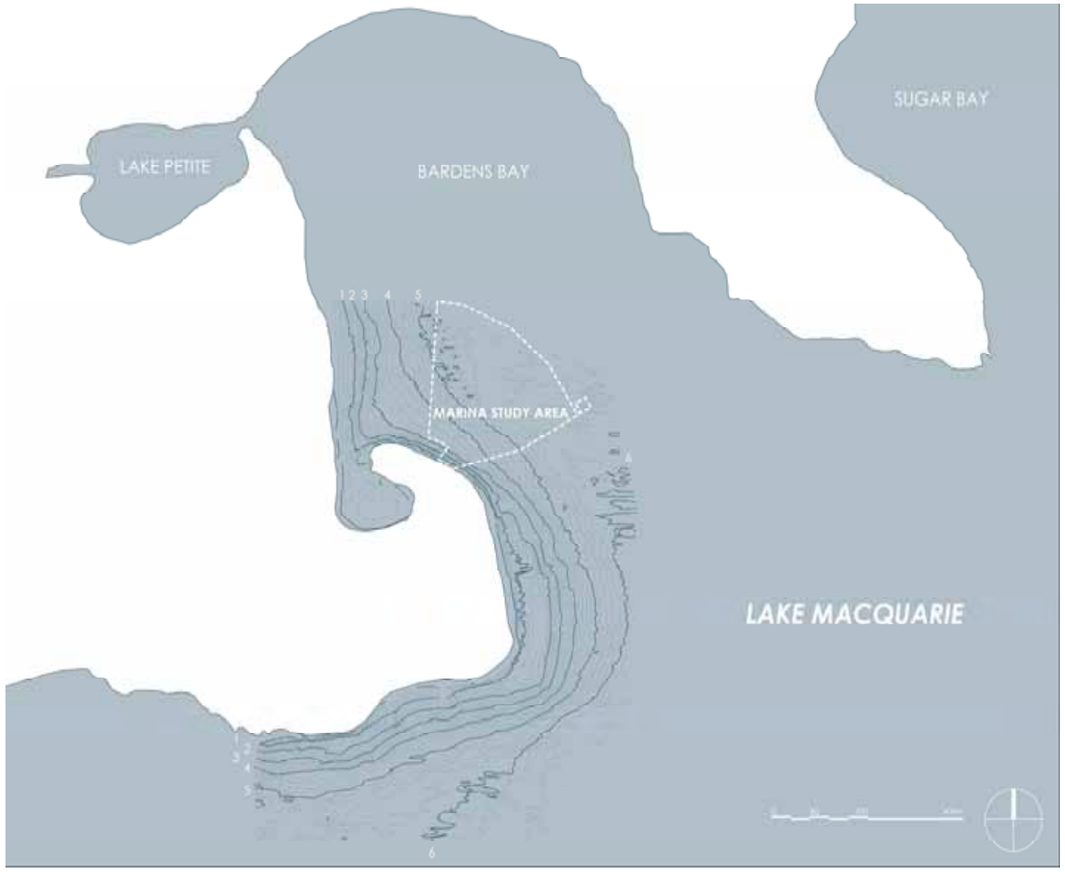
A4 THE SITE + ANALYSIS

Land falls from Bluff Point and small low ridge in south at 8.5m to low lying area in north at 0.9m, to lake water edge north, east and south;

Minimal trees on site other than fringing foreshore vegetation along eastern and southern edge, saltmarsh & mangroves around edge of Bardens Bay and cultural tree plantings in southern part of site near Bluff Point;

.

Water depths vary from zero at the shoreline to approximately 6.8m near the east corner. Water depths increase from zero to 3m within approximately 30m of the shoreline.



A4 THE SITE + ANALYSIS

The site and its surrounds contain evidence of Awabakal occupation over an unknown period of time. There are various registered sites on the land and features in the adjoining foreshore land. The sites are of high significance as assessed on a cultural basis by the Aboriginal community.

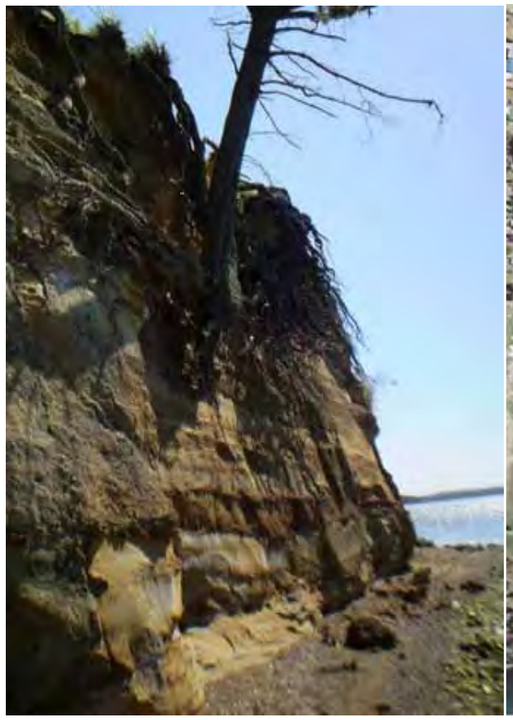
Early European use of the site was for private purposes by Mr Bert Bailey, with some agricultural activity. Early films “Dad & Dave”and “On My Selection” filmed on site.

The site passed to religious organisations, initially by a group of sisters as a rehabilitation and retirement centre for clergy, then The Brothers

It became a school for children with disabilities (known as St John of God Special School), with its focus on assisting/educating children with behavioural disabilities until its closure in 2000.

All buildings have since been demolished on site

Historic grotto, sundial and lake bathing area remain outside the site. Lake bathing area is required to be removed under previous approved conditions.

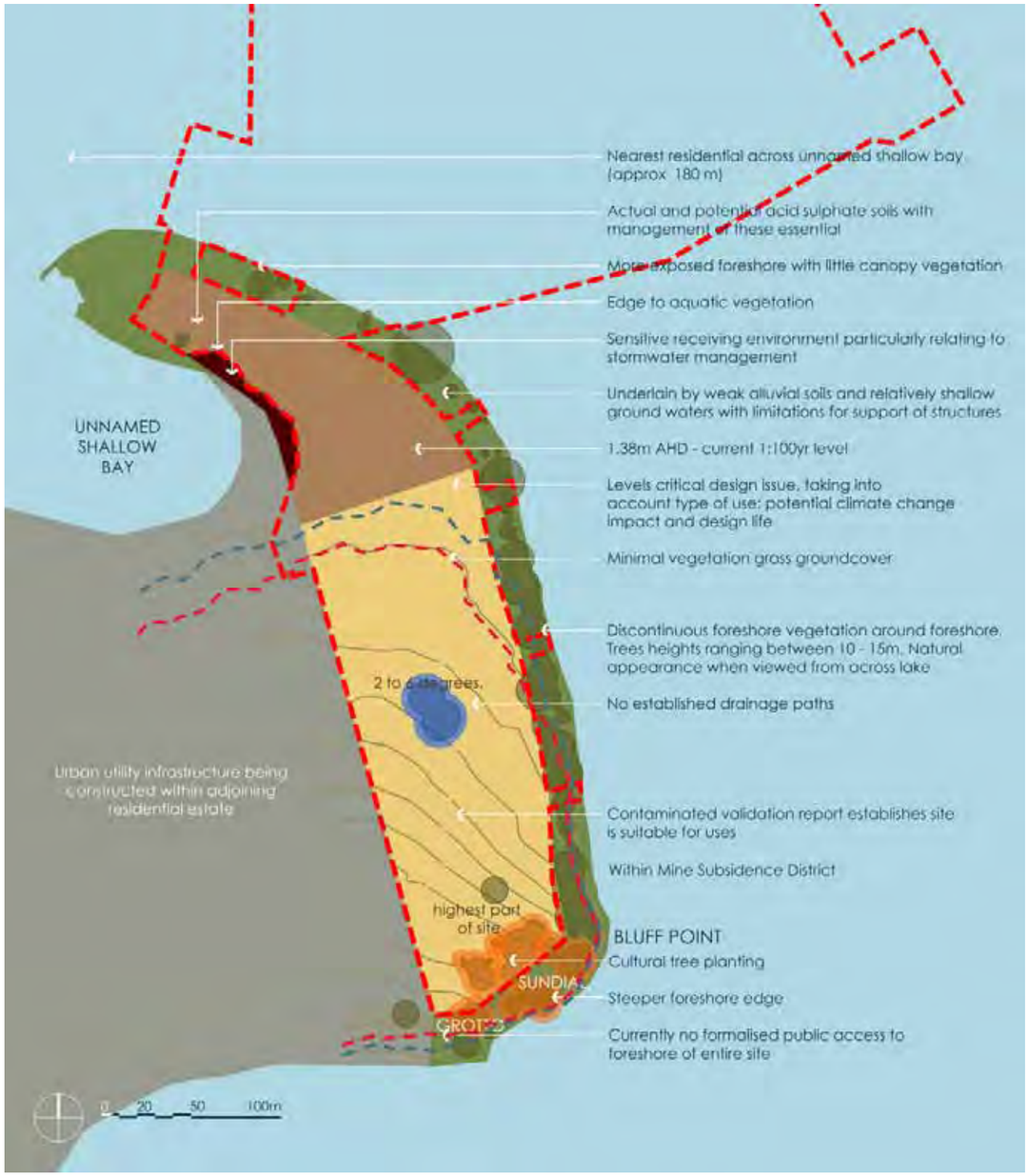


History of Site

A4 THE SITE + ANALYSIS

features around site

A4 THE SITE + ANALYSIS



features on site

A4 THE SITE + ANALYSIS

The highest point of the site is 8.62mAHD back from Bluff Point. Within the southern elevation, in addition to foreshore vegetation there is a grouping of cultural tree plantings within the site. Combined, the dominant tree canopy from the south varies between15-30m AHD. On this elevation, the combined profile generally is higher in the centre and drops away slightly east and west.

From analysis, it is desirable to predominantly set back built form to ensure retention of the cultural tree planting. With that retained, there is likely to be visual capacity for a small 2-3 storey built form to sit close to the highest topographical point on site.

Within the eastern elevation, the canopy largely consists of foreshore vegetation. There are three existing 25m high trees located in the central part of the site, where ground level is 3.6-3.8m AHD. The dominant tree canopy is variable along the elevation through to the lower parts of the site. Generally the canopy could be represented by understorey 0-15m AHD, - 15 to 30m AHD + highest 40m AHD, with topography dropping down from 8.6m AHD through to 1m AHD at the northernmost point.

From analysis, this indicates a visual capacity for variable building heights of 2-4 storeys in the southern + central parts of the elevation, with some components of 5 storeys.

topography + tree analysis

A5 CONSTRAINTS + OPPORTUNITIES

CONSTRAINTS

Urban Design
1. Existing Residential development across Bardens Bay
2. Approved Master Plan for adjoining Trinity Point. Residential establishes street pattern & views across site to east including pedestrian cycle, street planting and access

Access
3. Increased traffic at Bonnells Bay / Morrisset

Visual
4. Marina + breakwater structure and views from the lake and Brightwaters South West & South and across Bardens Bay
5. Limited North-South public views from site
6. Extend public view across site to lake edge
7. Open aspect toward residential northern shoreline of Bardens Bay + Brightwaters

Cultural
8. Identify and conserve Indigenous culture
9. Existing cultural tree planting within site

Landscape
10. Future use of open space zoned land for a pedestrian lake edge link include any impacts on endangered ecological vegetation, steep topography around Bluff Point and indigenous cultural heritage values. There is also limited ability to provide linkage around edge of lake that would cater for all public eg. cyclists, disabled, aged (steeper and eroded edges)
11. Erosion control + landscaping

Heritage
12. Retain Cultural Planting
13. Restore & Conserve European Sundial + Grotto

Vegetation
14. Rehabilitation of foreshore edge & plant communities
15. Maintain + rehabilitate remnant forest edge
16. Lake edge erosion & vegetation impact

Ecological
17. Conserve Salt Marsh and Casuarina Forest
18. Erosion of Land edge increasing
19. Sea grass beds to be conserved

Biophysical
20. Acid Sulphate Soils – Minimise disturbance and manage

Hydrological
21. 1:100 Flood level limits type of buildings and usage
22. Maintain SW regime to lake + foreshore

Marine
23. Maintain navigable area from Bardens Bay to broader lake

Architecture
24. Within Mine Subsidence District
25. Urban utility infrastructure being constructed within adjoining residential estate
26. SEPP65 responses

Climate
27. Strong afternoon NE summer breezes & S/SW gales & storms
28. Maritime conditions

Environment
29. Climate change responses

A5 CONSTRAINTS + OPPORTUNITIES

OPPORTUNITIES

Urban Design
1. Urban + landscape interface to the existing and future residential development + street grid
2. Lower building heights on higher parts of site and predominant built form profile to be contained within existing or future tree canopy line
3. Taller buildings to mark "Port / Village Centre"

Access
4. Site is linked to an emerging sub regional centre predominantly via a collector road or higher road hierarchy, meaning limited reliance on access and traffic via local roads. Trinity Point Drive access via Fishery Point Road to Morisset
then F3
5. Given constraints to active use of the open space zoned land, opportunity exists to design and incorporate an alternative pedestrian system within the tourism zoned land for all public
6. Invite all public through and around site to facilitate activity and appreciation of lakeside location

Visual
7. Potential future public viewing position and open space
8. Opportunity for a high quality public domain + scenic quality of the site landscape
9. Potential exposure of high point of site on south east margin. Increased landscaped and access setback from open space zoned edge to create 'lookout' and additional space on south east, cliff top area
10. Port / Village with excellent lake views and activity overview
11. Relate building heights to lake edge tree screens

Cultural
12. Public Art at key node points - Village, Bluff + public street extensions

Landscape
13. Gently sloping land to Northern part of site - access + Solar + views
14. Retain cultural plantings

Heritage
15. Information & demonstration of heritage area & vegetation

Vegetation
16. Weed infestations replace with native landscaping
17. Opportunity to ensure minimal tree loss and maximise natural regeneration of foreshore edge. Regeneration may improve discontinuous + thin existing lake shore tree canopy and its variable height + form

Ecological
18. Conserve saltmarsh casuarina lake edge

Biophysical
19. Increase native species plantings

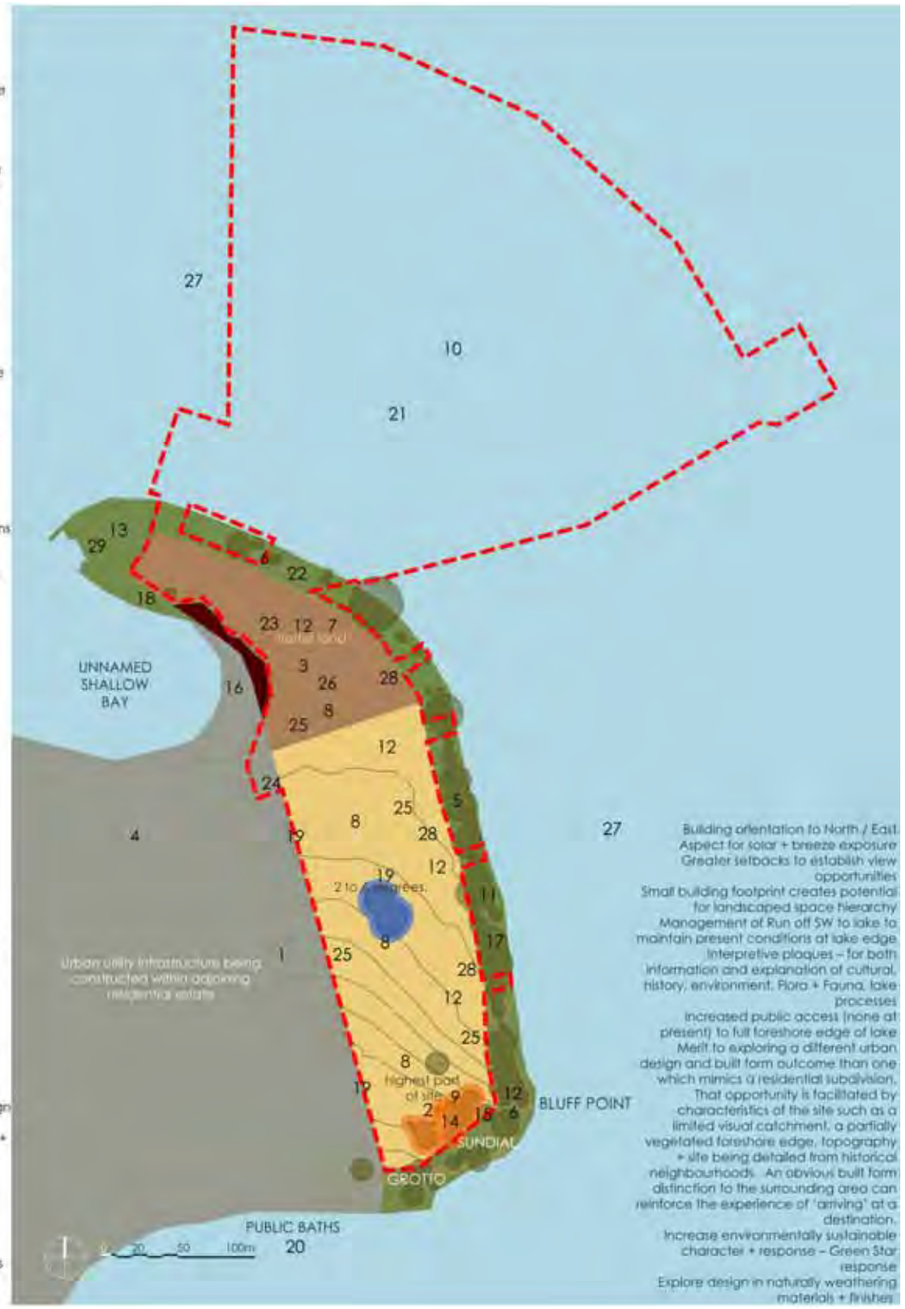
Hydrological
20. Minimise interference with Water Tables

Marine
21. Deep water with good shore access and limited aquatic ecology constraints in this area provides best opportunity for a marina. Marina design to account for coastal processes and provide best practice environmental facilities and management
22. Marina access from adjacent lower level land

Architecture
23. Create Destination on Lake Macquarie with social & economic activities responding to Tourism Land-Use Zoning
24. Public Access / Place at termination of Trinity Point Drive
25. Built form rises from edges - screened by landscape edge to East and residential development to West. Opportunity for integrated design themes, form, colour & materials drawing on natural environment
26. Range of accommodation & plans responding to unique regional + local context

Climate
27. Site is well exposed to gain good solar access Northern + Eastern light and for winds aiding cooling & ventilation

Environment
28. Potential future ability to extend managed public foreshore access sensitively – boardwalk suspended over critical habitats
29. A future foreshore reserve with existing natural attributes, including intimate north western bay and saltmarsh environment



A6 DESIGN EVOLUTION + ARCHITECTS SUMMARY

Introduction
The design intent, principles + urban design guidelines for which Concept Plan approval are sought have been developed over a long time. It is not based on pre-conceived ideas about the outcome – but is a product of evolution. The concept design is based on many hundreds of decisions based on multiple interacting streams of information + study collected + undertaken by the Architect from many sources. As new information was available, the design evolved.

Some of the key components informing the design process include:
- Review of previous Masterplan Documents + LMCC tourism + other controls;
- A detailed understanding + analysis of the broad sub-region, locality + site context;
- Establishment of the site opportunities + constraints such as topography, environment, ecology, coastal processes, landscape, indigenous + european heritage, views + visual, linkages to existing / approved development – involving specialists issue consultant team;
- Determination of land use + mix of land use;
- Market considerations + how to create a successful tourism outcome rather than a failure

Vision
JPG articulated a vision for the project from its earliest design considerations with a unique tourism outcome for the lakeshore site. This vision embraced a sense that the site would become a special experience of both local and regional importance. This clear vision sought a unique public lakeshore 'place' with good public foreshore access in a landscape built upon the foreshore edge landscape and "lake" experience. A solution that both embrace the potentials for a unique 'lake lifestyle' design that was embedded in environmentally responsible principles to create a 'model' and much used and appreciated facilities – an enlightened and unique vision that would set a new 'experience' at a world class destination

Development of the Vision
With a full understanding of the site, context, opportunities, constraints + market demand, essential vision components was formulated, including:
- A marina linked to a land based marina + mixed use tourist facility, backed by the security of residential occupation as a component;
- The need to create a destination not just another tourist facility. The need to be a point of difference to others to ensure the project can compete, be known + instantly recognised as a positive part of tourism in and on Lake Macquarie
- A decision to create a high level of public amenity for general public, visitors + occupants by provision of greater levels + higher quality of ground level open space achieved through a taller built form than had originally been envisaged by some
- The absolute need to create a place for the public, public access + a site that interacts with the existing community. This is not just important, it is necessary for success – mix of uses, public access + built form strategies combine in a way similar to strategies employed for town centres around the lake - to generate vibrancy, dynamics + activity all year round

Design Evolution Overview
- Multiple interacting stream of information study & concept
- Studies of Region Locality + Site
- Demand surveys
- Review of Masterplan Documents, LMCC & Dept of Planning Plans
- Development of Vision
- Conceptual exploration
- Site & Tourism Studies progressed
- Expanding specialist consultant team
- Site analysis, visits, photography, geotechnical studies
- Opportunities & constraints

Design Evolution Process
With a full understanding of the site, context, opportunities, constraints, market demand + a clear understanding of the essential vision, the design evolution process began.

A number of elements become immediately clear:

- The marina had to be located in the north, where no large seagrass beds would be impacted, where no dredging of the lake was required (with its associated potential damage to the lake bed) + where the topography of the site allowed for the best linkage between land + water based marina components, and interaction with mix of land uses;

- Greater open space + viable floor space meant taller buildings than that envisaged by the Kendall Grange Master Plan;

- The topography meant that the taller 'destination' buildings should be located in the north (corresponding also with the activity area of the marina location) + lower forms in the south as the land rises – integrated predominantly into existing + future tree canopy of the lake edge;

- The cultural plantings, topography + other historical elements meant Bluff Point should be well setback from and a public space created at that point, providing a strong viewing location of the lake;

- The treed lake edge + important vegetation around the shallow bay should be maintained;

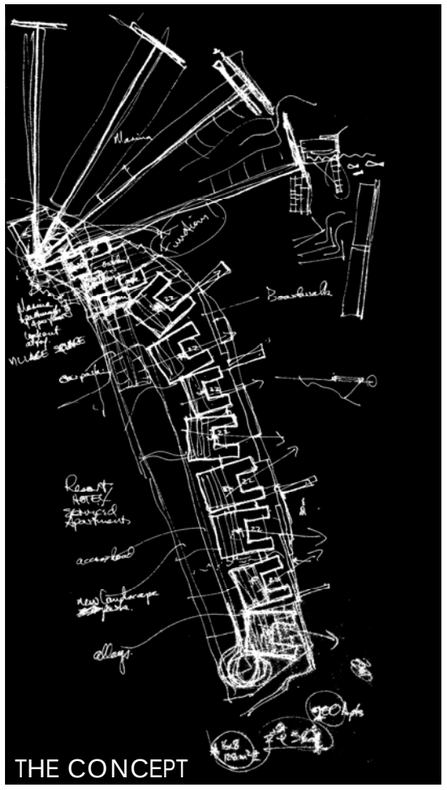
- Success was based on mixed land use + public access

Initial concepts explored Port / Village Destination, with more dense + higher building forms to maximise landscape as lineal parks of re-created littoral forest + lake edge elements. A varied lineal arrangement of courtyard / terraced built form in eight blocks + marina / village area ran north-south. 4-7 storey heights across the built form blocks cascaded down to a boardwalk promenade + lake edge, providing a stepped profile, fantastic lake views + open sun filled cross ventilated living. Unique marina plan form was identified to radiate out from the port / village centre + village square.

Issues raised with this initial concept included lack of connection to existing street system + concern about western park creating a "barrier", poor east / west permeability, lack of east / west thru site vistas; impact on Bluff Point; concern about appropriateness of cascading form; reduced setbacks to lake edge, lack of separation between buildings and concern on distribution of heights across the site.

A6 DESIGN EVOLUTION + ARCHITECTS SUMMARY

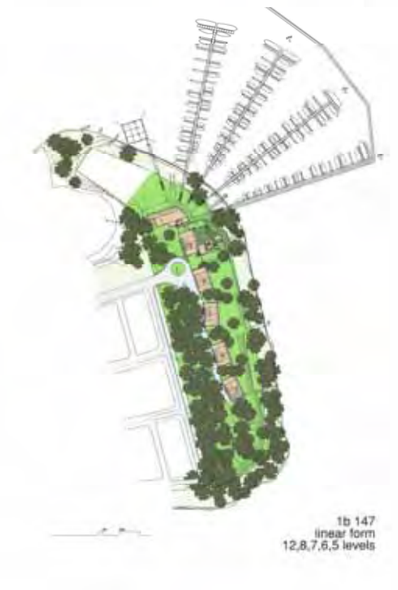
Initial concepts explored Port/Village with more dense building forms to maximise landscape as linear parks of recreated littoral forest/lakes edge elements.



Built Form + Building Height Considerations
After lengthy consideration + general design reviews, the design evolution then focused on exploration of a range of alternative built form footprints – relying on a mix of uses including up to 75 tourist apartments + 75 residential apartments.
A multitude of ideas were developed not as design proposals, but to explore different approaches + to crystalise what was positive elements for inclusion in an evolved concept.

Idea 1a + 1b – Linear Form
provided a more rectilinear form, setback from Bluff Point, existing street system + lake edge, with 1b including a reduced number of blocks, but with higher
12 storey village building. Issues with this included lack of connection to existing street system + concern about western park creating a barrier, poor east/west permeability if not in space, in design; concern over crime prevention design strategies + surveillance and concern over block built form heights

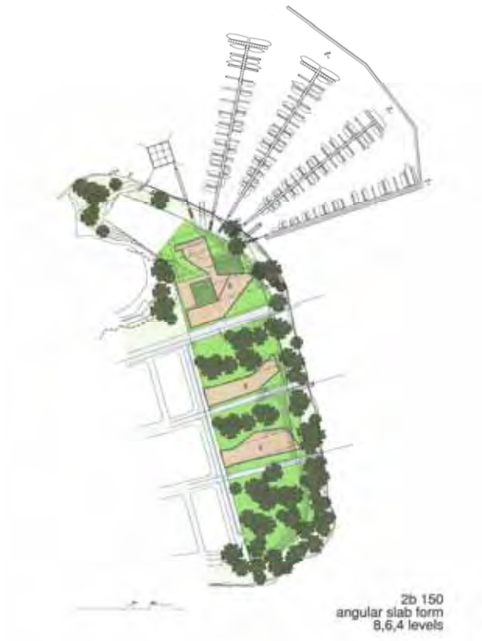
Idea 2a – Block Form on Street
reoriented building form to extensions of the external street system in block form. Issues with this included repetitive block form + arrangement lacking visual interest + appeal; lack of appropriate presentation + scale to existing western street; strong east/west orientations reduced strength of a north/south boardwalk; did not maximise view opportunities + connectivity to the lake for all



JOHNSON PROPERTY GROUP
Creating living communities

A6 DESIGN EVOLUTION + ARCHITECTS SUMMARY

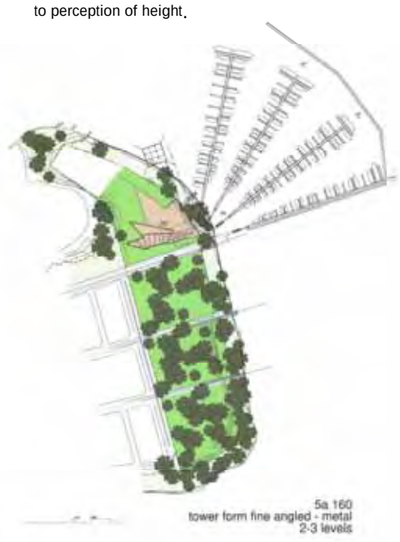
Idea 2b – Angular Slab Form
created large angular slab form, oriented east/west with extension to the external street system. Issues with this included large building mass + reduced modulation + articulation + SEPP 65 design concerns; did not maximise view opportunities + connectivity to the lake for all; reduced strength of a north/south boardwalk; concern over crime prevention design strategies; lack of appropriate presentation + scale to existing western street

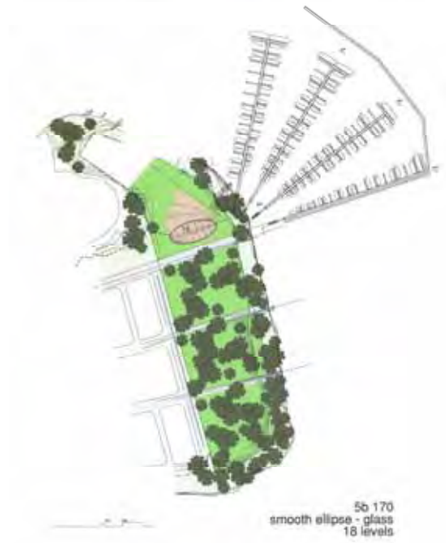


Idea 4 – Angled for View + Aspect
a modified version of block form, angled to improve view opportunities. Issues with this included large building mass; lack of setback from Bluff Point; SEPP 65 design concerns; not strong north/south boardwalk; lack of appropriate presentation to existing western street

Idea 5a + 5b
the ultimate purist outcome of creating a true destination with large areas of open space by proposing a single landmark building of significant height as either a fine angled metal tower form or smooth glass ellipse. Discounted predominantly due to perception of height.

Idea 3 – Low Scale Village
a low scale village, not dissimilar to the Kendall Grange Master Plan. Issues with this included a weaker sense of permeability (visual, if not real); no distinction in built form to provide 'destination' + point of difference; reduced meaningful open space; not a strong north/south boardwalk; not necessarily subject to high quality design control; did not maximise view opportunities + connectivity to the lake for all





A6 DESIGN EVOLUTION + ARCHITECTS SUMMARY

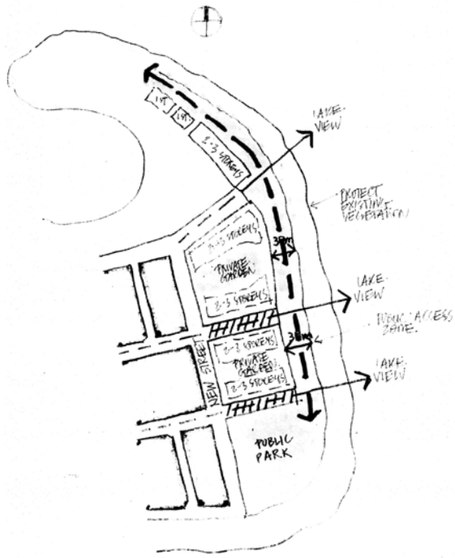
After lengthy consideration and general design reviews; exploration of a range of alternative footprints was studied with senior DoP and Urban Design Group within DoP (also involving Lake Macquarie City Council) to arrive at a preferred position of courtyards between buildings at right angle to lake with extended view corridors across site from existing street pattern.
Residential Apartment Numbers (75) and Tourism Apartments (75) = Total (150)

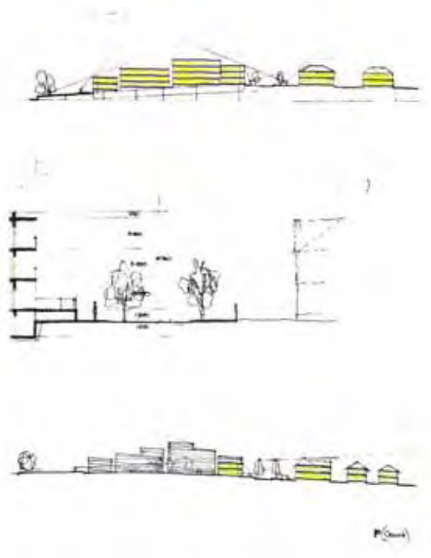
Zoning issues explored with LMCC + DoP

Key positive features adapted into the resulting built form footprint from the DoP sketch included:
- Additional building setback from eastern lake edge to create additional linkage around edge of site
- Provision of east-west visual + access connections through the site connecting the alignment of the external road network through to public open space zoned land + lake edge;
- Alignment of Built Form along east-west connections to form private gardens in between rows of built form
- Protection of Bluff Point

Adaptions – Refinements
Evolutions to the DoP sketch included:

- Varying the physical distance of the building setback from the lake edge so as not to present a 'uniform' setback, whilst evolving the design, intent + performance on the space between built form edge + lake edge, including evolution of boardwalk for public access + space, quality + style of landscape
- Enclosing the private gardens to create modulated perimeter block/open court form to better define a street edge interface along Trinity Point Drive + give greater strength in emphasis to the east-west linkages through to the lake edge + evolve intent of space, quality + style of courtyards + linkages
- Extending built form closer to Bluff Point, whilst retaining adequate space for cultural landscape + features to be retained + to promote use of Bluff Point for all as viewing + space + connection into a pedestrian system
- Revisited design + height + form of village area, proposing three individually tall buildings as marker/destination elements. Evolution of tall building concept significantly reliant on unique use of a dominant external material to each building, the buildings relationship to the village square + marina + options on proportions/heights of those buildings
- In evolving the design for the destination element of the project a number of design issues were considered. A taller small footprint building of 8-10 storeys initially considered an expressive response to the destination marker however in the lake context (whilst recognising the dominant Power Station reference) taller "buildings" rather than structures was not considered reasonable.





A group of small footprint well-proportioned lower height buildings offered both a destination marker element with a more articulated and unusual 'Village" place surround. Carefully proportioned and with a tilted 'attitude' they both were interesting and part of the 'Place' definition.
- Ensured the practical provision of marina related space + built form
- Revisited the provision of a homogenous height across the remaining site + developed height principles linked to existing characteristics + urban design features of the footprints. Heights of 2-5 storeys evolved outside the village square foci, generally sited lower height as topography rises to the south and generally lower on the eastern (2 storey) and western (2-3 storey, some 4 storey at corners) external edges.
- Evolution of heights + built form were tested against how the combined built form would be viewed from neighbourhoods to the north (eg. to ensure that a 'wall' of heights up the slope of the land along the long length of the U shaped form did not result); in relationship to the western residential edge; to a pedestrian walking along proposed boardwalks + using public domain; + to existing + future tree canopy (eg. against the principle that other than the village area, built form predominantly contained by that canopy when viewed from east + south). Model at built form 1:1000.
- Internal testing of the built form arrangement for Architects to generally satisfy themselves of the ability to comply with SEPP 65 principles.

Built Form Development related to adjacent settlement pattern with higher elements towards centre of site and as marker elements at Village/Tourism focus. Relocated Helipad to eastern side of Marina breakwater.

The Principles, Objectives + Guidelines presented in the next section of this document have been iteratively developed out of the Design Evolution process + seek to establish the framework for ongoing design evolution. These have been modified to incorporate feedback received during an initial SEPP 65 Design Review Panel discussion + workshops with LMCC. Design Evolution does not stop on lodgment of the Concept Plan - the opportunity exists for further refinement to the framework during the Concept Plan assessment + approval process. Evolution of the design + its detail will by necessity continue beyond approval of the Concept Plan.
Note: This design evolution section focuses specifically on the evolution of the land based built form outcomes. It is appropriate to note that the marina + helipad has similarly evolved in its design + detail relative to coastal process, aquatic ecology, construction considerations + operational considerations + impact assessment

A6 DESIGN EVOLUTION + ARCHITECTS SUMMARY

A6 DESIGN EVOLUTION + ARCHITECTS SUMMARY

The following is an Architectural Summary of what has evolved out of the design process to date and for which the more technical planning framework of the Concept Plan is based.

Lake Macquarie - named after the first governor of NSW, Lachlan Macquarie is 120 kms from **Sydney** (1 hour and 15 mins) and 50 kms from **Newcastle)**.

This **proximity to major cities** with good local and state **rail and road infrastructure** ensures simple direct access to this destination site. With major international airports at Sydney and Newcastle, the site is fully accessible for international visitors to Australia.

Located 8 kilometres east from the proposed major **Regional centre of Morisset**, the site of **3.66 hectares** is a peninsula on the **SW shore** of **Lake Macquarie**.

Rising approximately 8m from an open flat area at **Bardens Bay** the site slopes gently to **Bluff Point** on the southern extremity affording **extensive views** to N, NE, SE and S through a forest, lake-edge landscape.

The site has a long North-South axis of variable dimension in the order of 350-400m and a short East-West axis of variable dimensions in the order of 70-80m.

The **Johnson Property Group** propose for the **Trinity Point site** a new **mixed use destination – Marina**, **Tourism** and **residential** project set in a **large publicly accessible foreshore landscape**.

The solution explores a layered approach that incorporate a number of key design aspirations including a new lake shore public "place" – the Village – with a Marina and Tourism focus. This vibrant, active public element will give a new lake edge focus for both local and regional use.

The Marina proposal for a **staged 308 berths** extends over the NE section of the Lake from the northern end of the site where conditions are best suited for this **much-in-demand** marine facility.

Shore based elements include **Workshop, hardstand apron areas + amenities and operational facilities** with a **publicly accessible protective breakwater** arcing around the SE and E of the marina pens.

Adjacent to the marina element is located a small **lakeside village element** that will form the **important public focus** and climax and centrepiece of the development.

The vibrant lakeside 'Village' will provide an elevated **public "place"** with **café, restaurant, shop, conference, health & fitness and amenities** where a vibrant, active public space with extensive views over marina and splendid lake views offering an attractive lakeside lifestyle.

The site, whilst long and narrow, has associated with this "Village Square" element an extensive North-South **Public "Boardwalk" traversing the lake shore perimeter** behind the **primary existing forest foreshore edge** and a further **landscaped linear, lake edge park.**

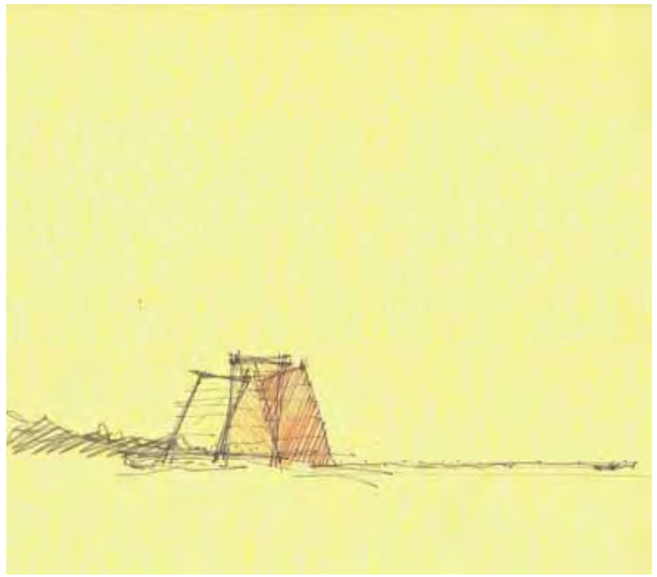
Along the **Boardwalk** the public will access extensive eastern lake prospects, **interpretive** and **explanatory** guides at strategic points providing information on **local history, culture, site and environment** – this **promenade** element will allow **visitors, locals, and residents** to enjoy the unique location and the 'lifestyle' facilities available at the Village and Marina.

The balance of the site carefully places **residential and tourist apartment buildings** articulated in smaller scaled buildings linked by **courtyards** and **landscaped corridors** extended from the emerging housing development to the west. Each **Court** that embraces the lake shore position has unique **water gardens** and **landscaped grounds with resort pools**, pergola and shade elements for residents and tourists.

At the Village three landmark buildings are proposed as part of the tourism element marking both the village and site destination.

All residential **carparking** is in **basement** structures hidden from general view but directly linked to all the facilities. At the Village Centre the parking is located at grade with the large publicly accessible Village Place and boardwalk level over. This solution avoids excavating in a sensitive geological area, affords views over the lake from the public "place" and screens the required marina carparking.

To the west of the Boardwalk the residential elements will be arranged in **carefully articulated fragmented buildings** around **courts** with **extensively landscaped water gardens with native flora**. At the existing street access points, **public access landscaped footpaths** will be extended across the site to the foreshore boardwalk giving both public access and views to the lake from the NS street edging the existing Trinity Point subdivision.



A6 DESIGN EVOLUTION + ARCHITECTS SUMMARY

Each **residential** building will be planned around a **lift/stair core** accessing the various building levels with **foyers at street level**.

Ground floor garden apartments will have small private courts.

This approach allows **the street and court form** to give an **articulated carefully scaled height and street elevation** – lively, interesting and varied, breaking down the scale and dimension of the development to that of the adjacent residential scales with **2 and 3 storey elements on the west** and **2 storey elements on the Eastern Lake Edge**.

A **mix** of apartment types is planned all with generous open luxury "resort" interiors.

Balconies face North or East with extensive street, court and lake views.

Reinforced concrete **structures** founded on concrete piling systems will resolve complex mine and geological conditions.

The articulated **form** ensures **good view** and **solar access** with **wind protection** on balconies allowing a full enjoyment of the great site position for all.

Finishes proposed for the complex include a range of distinctive materials exhibiting natural patinas as they weather. This character will blend with the **extensive Native landscapes** proposed in the **foreshore setbacks, courts and street edges**. These materials include for the village:

* **Natural timber finishes**
* **solar low E glass**
* **metal striped pitched roof forms**

The **landmark tourism** buildings have distinctive weathered finishes of **Austen steel**, **timber, copper and glass**.

The **primary Residential material** will be a trowelled texture finish of light ochre **Granostone** with accent elements of **natural timber, glass and aluminium**.

A **public art** program will provide a range of **sculptural** elements in various locations including the **Village, Boardwalk and Courts**.

Each quality residential and tourist building will **incorporate environmentally sustainable responses** that investigates design for:

- good **solar** access
- **cross**-ventilation
- **S.W.** management
- **Gas** energy
- Roof **Xeriscape** gardens
- Quality fitments and appliance
- **Eco** lifts
- **Rainwater** reuse
- **Waste** recycling
- **Reverse cycle** heating & cooling
- **Wind energy** generation
- **Solar** HW
- **Lighting** efficiency
- Low maintenance **native** garden
- Passive **solar** design
- **Natural** materials palette