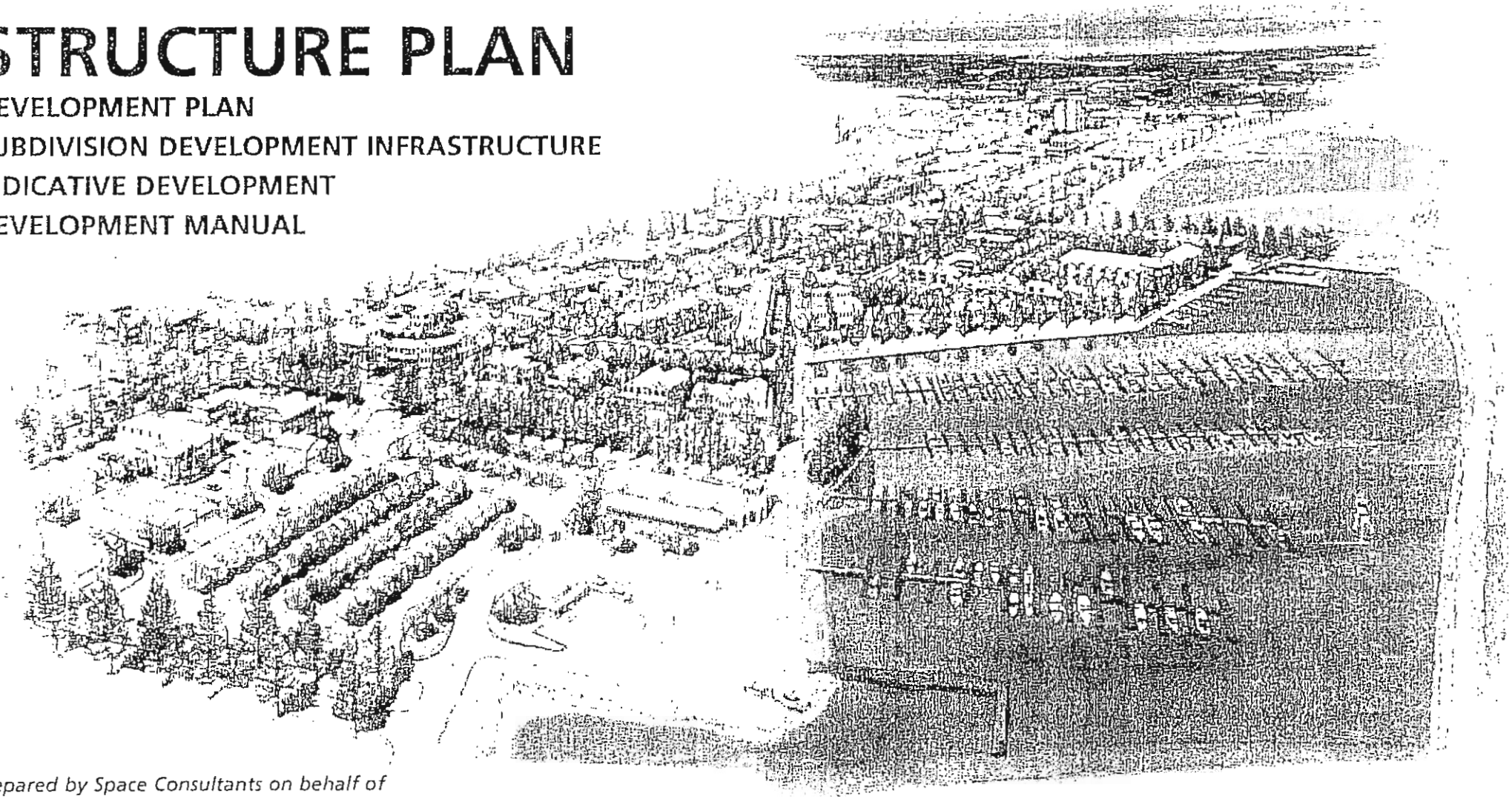
BATAVIA COAST MARINA GERALDTON

STRUCTURE PLAN

DEVELOPMENT PLAN
SUBDIVISION DEVELOPMENT INFRASTRUCTURE
INDICATIVE DEVELOPMENT
DEVELOPMENT MANUAL



Prepared by Space Consultants on behalf of

Landcorp
City of Geraldton

11 February 1999

Adopted by Council 13 July 1999

FRONTISPIECE

This document is the Deveelopment Guide Plan referred to in City of Geraldton Town Planning Scheme N°3 clause 4.9, Marina.

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STRUCTURE PLAN

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A DEVELOPMENT PLAN

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PROJECT BACKGROUND

A1.1 STAGES OF DEVELOPMENT

In the late 1980's the infrastructure for the Batavia Coast marina was developed, leading to the release of the residential land now referred to as the Abrolhos Keys development. The remaining land designated for hotel, festival retail and marina purposes remained unsold.

Turen Donaldson Development Review Plan
In 1995 the Mid West Development Commission, Department of Transport and City of Geraldton, on behalf of the stakeholders, commissioned a study by Turen Property Consulting and Donaldson Smith & Hooke to provide a complete review of the existing Marina subdivision.

The report reviewed the vision for the marina and proposed a new framework to:
- increase the marketability of the land
- integrate the marina land with the CBD
- link the CBD to the waterfront
- increase the tourist appeal of Geraldton, and
- ensure the financial feasibility of the marina.

The report took into consideration:
- alternative rail access to the port
- retention of a tourist train spurline
- the development of a foreshore drive
- links between the marina and the CBD, and
- integration of the proposed Geraldton Region Museum with the marina complex.

Project Vision
The report detailed a vision believed to be integral to the success of the marina development and its integration with the Geraldton CBD. The vision included creating comfortable and memorable places, optimising economic opportunities, enhancing Geraldton's regional role and providing clear traffic movement systems.

The urban design review focused on features such as traffic axes, public open space, carparking, railway line, beach areas, heritage issues and existing and proposed land uses in the marina complex area.

The proposed subdivision of the area addressed lot sizes and land uses on the assumption that the existing rail line would be relocated. A financial analysis of the revised subdivision has been undertaken.

The report proposed a Development Plan and Design Guidelines to be integrated into the City of Geraldton Town Planning Scheme. This provided the mechanism to facilitate development of the marina area.

Planning and Urban Design Objectives
The Turen/Donaldson Plan highlighted a number of urban design features which would add to the success of the redevelopment. The planning objectives and the design issue responses included:

Strategically link the Marina to the CBD
- create a clearly defined traffic movement pattern
- improve road access into the marina from the CBD by way of a natural extension of the grid
- preserve and create vistas
- create a natural extension of the CBD and the resolve the marina's current isolation
- provide the CBD with a waterfront focus.

Ensure the economic success of the marina area
- provide medium density housing to complement the existing housing providing new residential opportunities for Geraldton residents
- allow commercial development which complements the existing Marine Terrace commercial area supplementing the central retail providing the opportunity for natural growth of retail activity as the demand grows
- provide adequate space for marine industry associated with the marina. The benefit is a marina area with a variety of land use mixes and intensities which complements the existing CBD.

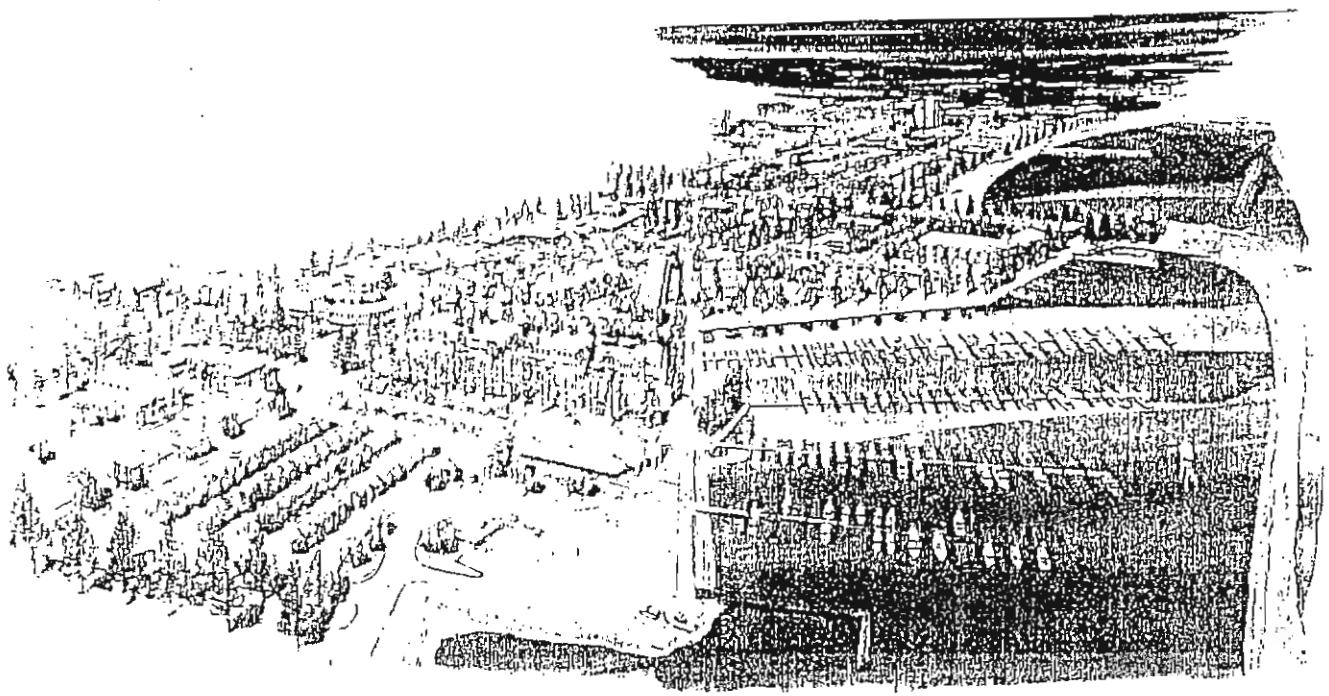
PROJECT BACKGROUND

The promotion of Geraldton as a tourist destination

- create a vibrant and unique contribution to the make-up of Geraldton
- increase tourist activity and spending through the development of new facilities complementing those existing.
- enhance existing historic buildings
- develop an appropriate landscaping theme
- provide for a hotel on the marina land
- provide other short term, centrally located accommodation for tourists.

Consolidate Geraldton's role as the social and cultural centre of the region

- create a new accessible sandy beach along the seaside frontage of the City
- create a continuous beachfront boardwalk/ dual-use-path
- link open spaces and parks
- locate the new Geraldton Region Museum on the marina waterfront
- promote complementary uses such as cafes and restaurants
- encourage greater variety and better quality services and facilities for residents and tourists.



PROJECT BACKGROUND

A1.2 BATAVIA COAST MARINA REDEVELOPMENT EVALUATION REPORT

In 1996 Landcorp, assisted by Donaldson, Smith & Hooke, prepared the Batavia Coast Marina Redevelopment Evaluation Report on behalf of the Batavia Coast Marina Management Steering Committee. The purpose of this report was to further develop planning for, and fully evaluate a proposed redevelopment of Geraldton's Marina, foreshore and CBD area.

The report developed two scenarios for the redevelopment of the marina:

- the relocation of the rail line
- the retention of the rail line.

The relocation of the rail was preferred. This achieves the greatest social and long term economic benefits.

Input into the report included consultation with 15 public interest groups. Essentially these groups supported the redevelopment of the land. Some concern was expressed by the residents from the Abrolhos Keys residential area and some business operators who have long term leases on Westrail land.

In response to design and access issues for the Museum, Foreshore Drive was extended to Bayly Street.

The report presents a number of findings which are:

- rail relocation is essential for maximum opportunities
- improvements are required early to attract people and businesses
- there is support of the plan from the City of Geraldton and the wider community
- speculative valuations of the land should not be allowed.

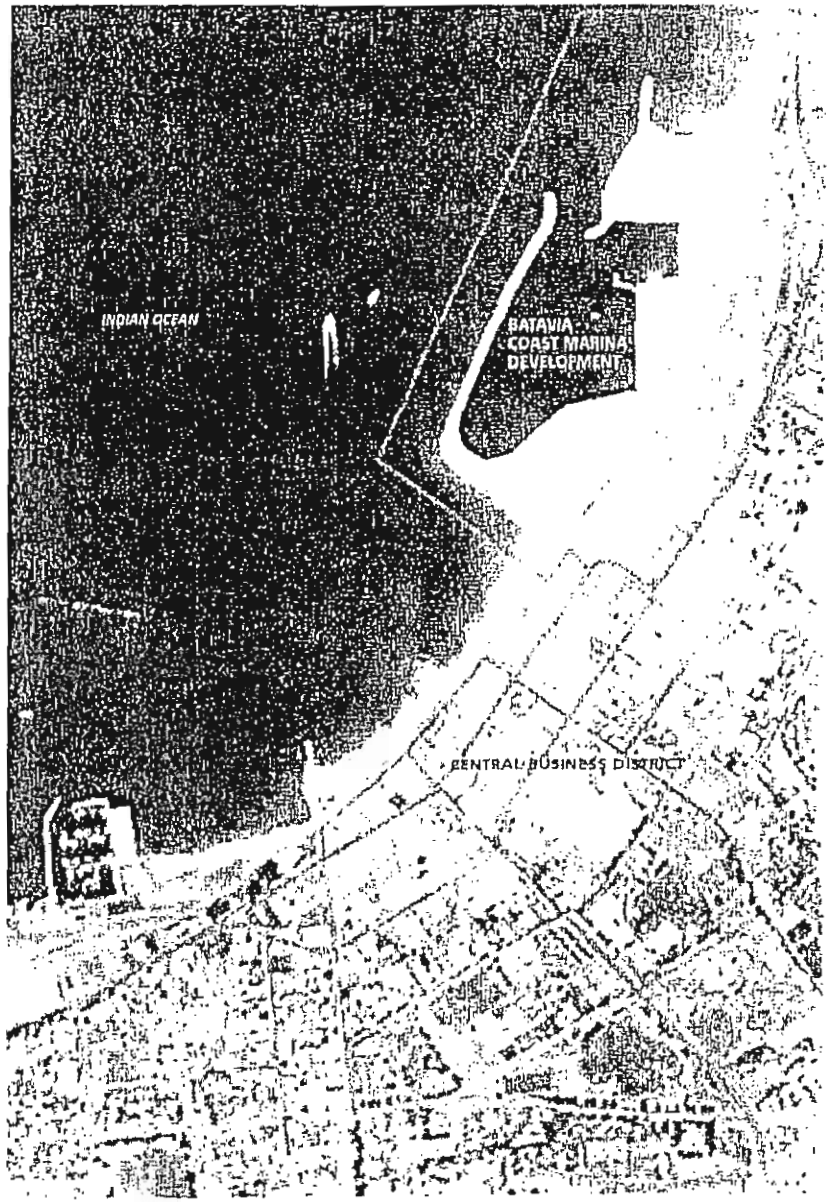
In July 1998 the City of Geraldton resolved to advertise the Structure Plan for public comment and formal adoption.

PROJECT CONTEXT

A2.1 STATUTORY CONTEXT

The City of Geraldton operates in accordance with Town Planning Scheme N°3. The Marina land is zoned "marina".

Essentially the zoning allows marina oriented tourist development which is complementary to the CBD. Assessment of Development Applications will have regard to detailed scheme requirements.



PROJECT CONTEXT

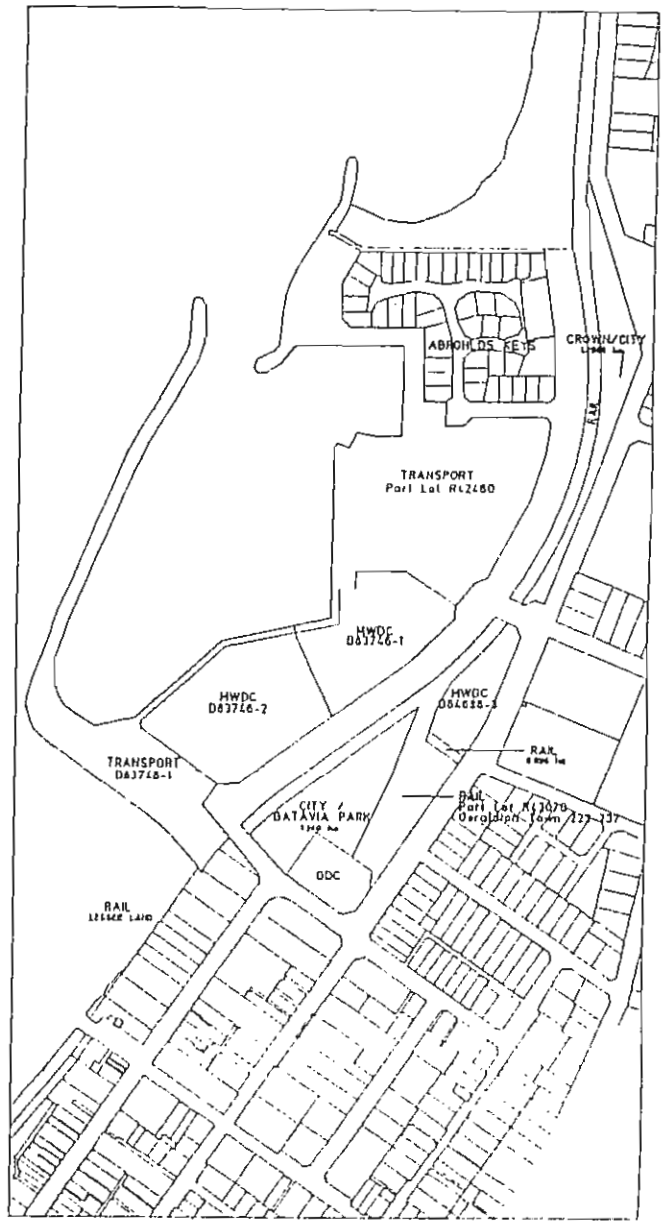
A2.2 EXISTING LAND OWNERSHIP AND TENURE

The project is substantially situated on land owned or vested in various public agencies. The accompanying table shows the land interests held by the public sector stakeholders involved.

The only land in private ownership is a small portion of land under 2000 sqm belonging to the Geraldton Development Corporation along Forrest Street. This land is currently car parking for an office on the same lot. The City of Geraldton may seek complementary development on this parcel, if it is developed further.

OWNER / VESTEE	DOLA ID	Vesting Purposes	Approx Area m²
Mid West Development	D83746-1	Freehold	15,936
	D83746-2	Freehold	22,239
	D84688-3	Freehold	6,704
Westrail	Part of R42070	Rail	7,000
	Geraldton Town 222-237	Rail	8,500
Dept of Transport	Part of Lot R42460	Marina	10,000
	Part of Lot R4260	Marina	4,000
City of Geraldton		Recreation	12,390
Crown Land / City		Road Reserve	2,000

Source: Hilly, Thompson and Delfos, July 1997



PROJECT VISION

A3.1 KEY URBAN DESIGN STRATEGIES

The Batavia Coast Marina occupies a crucial site on the edge of the Geraldton CBD.

The form of its development will have a very significant impact upon the future of the City centre, not only from a commercial point of view, but also upon the image of the City for locals and visitors. It has the potential to greatly improve the sense of connection between the City and the ocean and contribute to the lifestyle amenity of Geraldton.

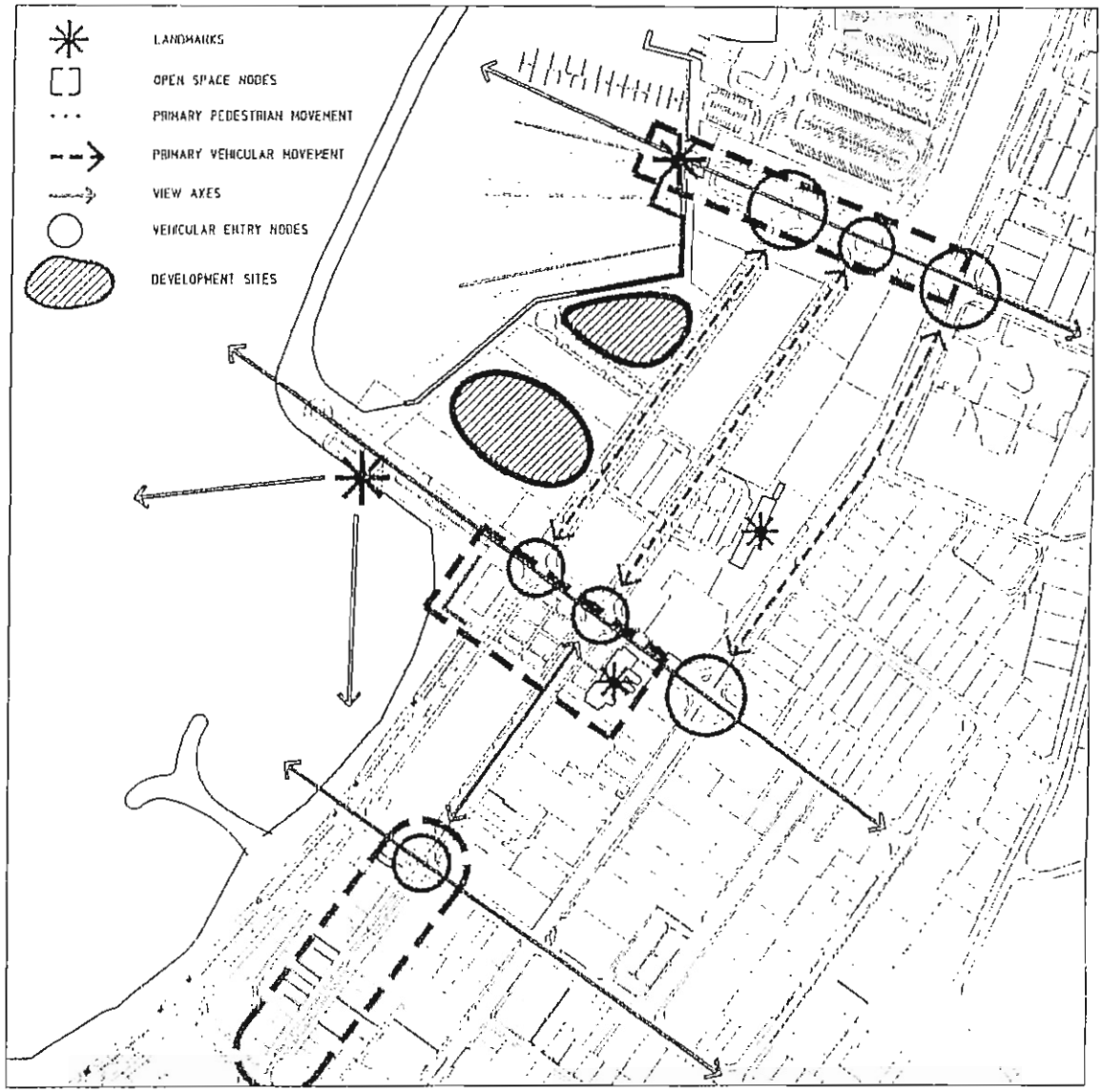
Specific design strategies to achieve these objectives include:

1 Creation of attractive, accessible sandy town beaches from Fitzgerald Street to Forrest Street with areas of grass and shady trees together with associated parking. The beachfront amenity will be sustained with appropriate Foreshore management strategy.

2 Creation of development opportunities fronting Foreshore Drive with a direct relationship to the beaches.

3 Creation of attractive high quality streetscape throughout the Marina redevelopment.

4 The extension of Marine Terrace directly into the Marina, connecting the Marina and CBD through provision of:



PROJECT VISION

- a new civic square in front of the Courthouse
- a tourist bus arrival plaza on the marina side of the Old Railway
- a new parkland on the Bayly Street extension linking Chapman road with the marina and waters edge.

5 Provide a site for the Geraldton Region Museum building located on the waterfront ideally suited to its maritime heritage focus.

6 The provision of marina based activities to complement the boat ramp, associated parking area and possible retail activity.

7 Provide new development opportunities of a scale commensurate with the town centres existing scale.

8 Direct beach connections and vistas at Fitzgerald, Cathedral, Durlacher and Forrest Streets. Bayly Street will extend to the marina waters edge through a linear park.

9 The extension of Foreshore Drive directly into the Marina connecting the proposed Geraldton Region Museum site with the CBD.

10 Optimisation of the relationship between development and the waters edge within the Marina by encouraging active frontages therefore enlivening the public and boardwalk areas.

11 Provide continuous dual-use path network from the northern beaches through the development to Cathedral Avenue.

12 Enhancement of the development opportunities in Forrest Street and Chapman Road to reflect the status of these important thoroughfares.

13 Provide parkland distributed as network of public open spaces in excess of the original Batavia Park scheme.

URBAN DESIGN PRINCIPLES

P1 URBAN FORM

VISTAS & LANDMARKS

Visually strong connections between the existing city and CBD with the marina development area is a key component of the Structure Plan. Views and vistas from the city to the foreshore and to the existing city from various parts of the new development together with clear sightlines to and from important areas within the city helps establish the marina area as an extension of the city centre. Important vistas will be created along:

- Bayly Street
- Marine Terrace
- Foreshore Drive
- Forrest Street.

Important landmarks leading the structure of the urban form are:

- the Old Railway Station
- the Courthouse
- the Marine Terrace Mall
- a new landmark element at the water's edge on the Bayly Street axis.

Through the maintenance of vistas these landmarks will assist with orientation.

SUBDIVISION

The size and location of development sites is intended to facilitate the continuation of the existing pattern of the city's CBD. Development sites may be amalgamated or subdivided following planning approval of an appropriate development proposal which satisfies the policies and guidelines established in this document. An indicative subdivision layout is shown in Appendix 1. Section C of this document shows indicative site development intended to achieve the continued development of the city.

SCALE

The strategy for the density of development is to consolidate buildings forming continuous two to three storey frontages to key roads and the foreshore promenades with carparking, generally through cross easement, grouped behind. Parking efficiencies will be provided by reciprocal usage of bays afforded through a mix of day / night activities and peak demand. Enhanced accessibility will be provided through cross-easement.

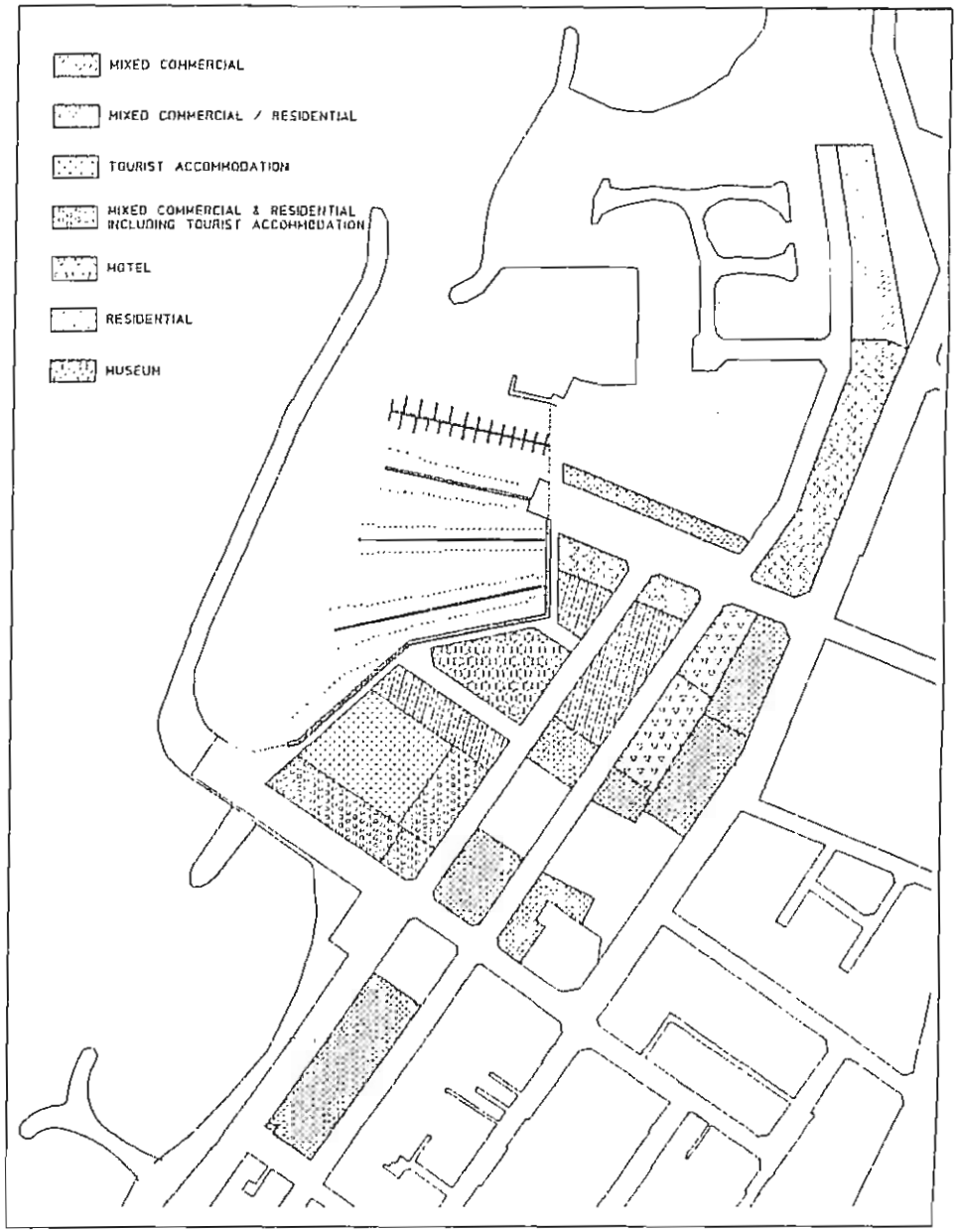
URBAN DESIGN PRINCIPLES

P2 LAND USE

CITY CENTRE INTEGRATION

Land uses for the Marina area must:

- be appropriate for the City Centre location
- allow for changing uses over time, thus
- being reactive to changing market forces
- be in keeping with the commercial makeup of the existing City Centre uses
- provide for new compatible activities supplementing the existing.



URBAN DESIGN PRINCIPLES

P3 HERITAGE & CULTURE

HERITAGE & CULTURAL ELEMENTS

The Marina precinct has two significant heritage buildings, the Courthouse and the Old Railway Station. The development plan has been strongly influenced by the presence of these two buildings and incorporates strong urban design responses which recognise their value.

Railway station
The planning has incorporated the following strategies:

- the western side will be the arrival point for buses (reflecting the original function of arrival for visitors by train) along with parking
- the internal operation of the building will continue the process of arrivals on the platform side and local residents coming from the Chapman Road approach to the building to greet visitors
- adjoining buildings on the Chapman Road frontage will be set back to ensure vistas to the Railway Station are maintained
- the zero mile peg at the southern end of the platform will be protected
- the original track lines at the platform will be retained in the new pavement treatment.

Courthouse
The old courthouse is a very prominent feature of the Geraldton cityscape especially from the ocean and the marina breakwater.

Its significance as a building and its important location in the broader scheme incorporating the marina development has led to:

- the creation of a forecourt space across Marine Terrace
- the forming of a link between the building and the beachfront
- a civic setting with retail and commercial activities fronting the space to the south and across Forrest Street
- a grassed beach front area overlooking the beach and forming the western edge.

The space created may be used for overload carparking at peak times such as festivals. Foreshore Drive will cross this space but should be designed so that the plaza is the dominant element and the road reads as being secondary.

Public Art
It is expected that public art will contribute significantly to the local identity of the public and private realm of the development. The art works will relate thematically to the history and physical context of Geraldton.

New Museum
The new Geraldton Region Museum will occupy a central place in the character and form of the marina precinct. Its location at the water's edge is appropriate given Geraldton's rich maritime history.

The building should:

- relate strongly at ground level to the public boardwalks along the marina's waterfront
- present active ground level frontages to its perimeter streets
- provide a landmark identity to its corner adjacent to Station Square on Foreshore Drive
- provide for service delivery access and where necessary storage which is not visually obtrusive from its street frontages.

URBAN DESIGN PRINCIPLES

P4 OPEN SPACE NETWORK

ORIENTATION

The system of urban design axes, nodes, landmarks and edges all combine to form the way in which the space is perceived and remembered, thus contributing to the way the space is used by people and how they orientate themselves.

Other factors such as the detailing of landscape treatments including paving, planting, street furniture and signage all contribute to the understanding of the space and its use patterns.

Axes

The plan locates vehicle access alignments on the key visual axes connecting the city and CBD with important marina locations and maintains the visual connections between these within the development. This works primarily through the extension of Bayly Street, Foreshore Drive and Marine Terrace into the development area.

Nodes

There are four open space nodes connected with the marina development:

- The Courthouse Civic Square
- The Old Railway Station Square
- Museum sitting alongside the marina itself
- The Bayly Street Parklands culminating at the water's edge plaza.

Edges

The waterfront area provides a unique opportunity for passive and active recreation for the public. The open space provided along the foreshore edge is a reserve which runs the length of the site and contains the dual-use path. Chapman Road forms the eastern landscaped edge. The southern perimeter of the development is intended to be a seamless connection with the existing CBD.

CLEAR MOVEMENT SYSTEM

It is important for the Marina to have a clear system of pathways to facilitate a logical movement through the site for pedestrians, cycles and vehicles.

Pedestrians, cycles and vehicles will share street spaces. Pedestrian spaces will predominate towards the waterfront promenade areas.

All areas within the Marina should be accessible to all users, ensuring all members of the community including those with limited mobility and the elderly are able to enjoy this significant community amenity.

Important Axes

The key strategy behind the formation of the circulation has been the extrusion of the existing town grid into the marina. Marine Terrace and Foreshore Drive (north, south streets) and Bayly Street and Forrest Street (east, west) are primary axes in this strategy.

These axes have been emphasised in creating strong physical and visual links between the Marina and the Geraldton township by extending these streets into the Marina Precinct to form the basis of the extended gridded street layout.

Thus the movement from the existing town to the new Marina precinct will be a subtle transition. The thresholds of this transition will be appreciated at the Marine Terrace and Foreshore Drive intersections with Forrest Street, and the Bayly Street crossing of Chapman Road.

Circulation

It is important that Chapman Road's primary role in traffic circulation is not diminished. Thus Marine Terrace and Foreshore Drive will be designed to control traffic movement, speed and volume to ensure a safe pedestrian environment.

Foreshore Drive at the beach front will be designed as a "parking street". Within the marina development itself, the combined effect of the width of the street, the parallel parking and zero set backs for buildings will all contribute to a traffic calming effect.

Thus the experience of an urban density quality of the development will ensure that through traffic moving northwards from the city will avoid Foreshore Drive and Marine Terrace, taking the more open and easier pathway provided by Chapman Road. South moving traffic on Chapman will naturally tend to go directly to the centre.

Urban Design Constraints

The following assumptions should be viewed as design constraints:

1. Roads within the core CBD and marina should be destination roads only, if possible. The overall CBD transportation strategy should support this.
2. It is desirable that marina roads are low speed, parking streets.
3. Street design should promote free and safe movement of pedestrians, both along and across streets.
4. Land uses and building design guidelines will promote active streets with some alfresco activity.
5. The level of alfresco activity allowed can be modified if needed to reduce footpath width.
6. Activity and building frontages should be visible across streets, encouraging the interaction from one side of the street to the other.
7. The horizontal scale of the street should be proportional to the vertical scale (generally a height limit of 2 storeys applies) width 2:1 height or as close as possible.
8. The streets should have a feel of pedestrian busy-ness.
9. Street trees should be placed so as not to clutter the footpath.
10. The scale and detail of intersections should reflect the CBD character of the streets, giving pedestrians a feeling of equal priority.
11. Impact of large vehicles such as delivery trucks and buses should be minimised.
12. Commuter cyclists should be provided with a route either on Chapman Road or the Waterfront.
13. Recreational cyclists are most likely to use waterfront pathways.
14. Boat ramp traffic is undesirable in Bayly Street west of Marine Terrace.
15. Design of streets should promote vistas and must enable lot depths which support the type of development needed to meet the urban design goals.

P6 CARPARKING

CARPARKING STRATEGY

The key goal in carparking is to achieve the efficiencies of a public carparking configuration within the rich and varied built form comprised of larger scale developments such as a hotel and smaller scale mixed-use development.

The proposed carparking strategy is to optimise the efficiencies of carparking by utilising reciprocal parking and cross easements of private properties.

Reciprocal Parking
Planning for reciprocal rights of access from one property to another allows for peak parking demand to be shared between properties.

The overall carparking capacity of the marina precinct can therefore be assessed independent of the location of specific landuses.

In addition, the three key areas of public carparking are at the new Courthouse Civic Square and the Forrest Street extension; the Railway Station Square; and the Civic Parkland on the Bayly Street extension.

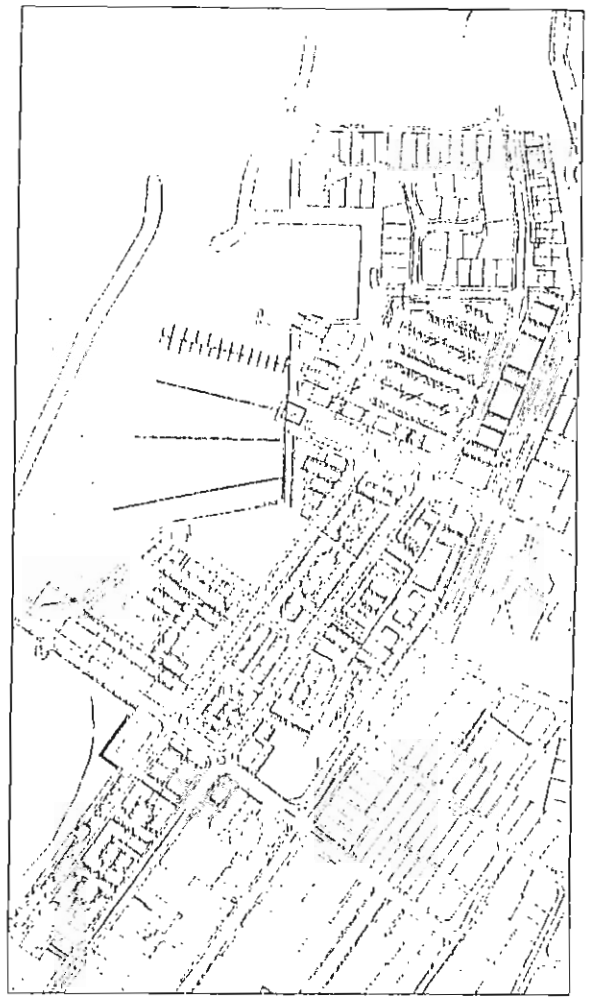
Cross - Easement
The mixed use nature of the marina development will mean that peak demand times on car parking will vary with the different activities. This will enable the system of reciprocal parking to be effective.

The system will combine public carparking areas along with cross easement rights-of-access to the rear of some properties. Properties fronting Chapman Road will have cross-eased access on the street frontage to accommodate restricted access requirements. For such sites, private and visitor/customer carparking would be integrated into a continuous access through the cross easements.

The concept has been formulated on the basis of providing the appropriate number and location of parking to efficiently serve the Marina development. It is not intended to compensate for CBD parking and thus risk detracting from the quality of the streetscape or to draw trade away from the CBD.

Additional parking for the CBD will be provided with the proposed parking provision along Foreshore Drive adjacent to the CBD.

Thus the proposed rationale will adequately cater for Marina focussed activity without undermining the existing CBD.



Public parking
Based on the development plan configuration, the kerbside and public parking is estimated to be:

Commercial Off-Site

Parking lot between Foreshore Drive and Marine Terrace	88
Railway Building Parking	66
Courthouse Square (south of Forrest Street)	33
Forrest Street	59
Foreshore Drive	66
Marine Terrace	62
Museum site side road	19
Bayly Street	11
Total Commercial Off-Site:	404
Residential On-Site	141
Commercial On-Site	715

Private parking
The proposed private carparking provisions have been based on the assumption of cross-eased access to commercial/retail properties. This system produces greater carparking efficiency, similar to that of public parking.

The proposed land use mix and the actual layout pattern of uses will generate significant levels of reciprocal carparking use of public carparking areas. This combined with the cross-easement approach to commercial and mixed use sites will create a generous level of carparking provision.

Note: The total required carparking for the Marina is 1260 bays. The Uloth Report, *Geraldton CBD and Batavia Coast Marina Transportation Study* (September 1997), calculates a total of 1296 bays. This was derived from area wide targets of 3.3 bays/100m^2 GFA (years 1997 to 2011) and 3.17 bays/100m^2 (year 2011 and beyond).

	PROPOSED
Retail	3 bays per 100m^2
Commercial	2 bays per 100m^2
Restaurant	3 bays per 100 m^2
Residential	1 bay per residence and 0.5 for visitors
Residential mixed use	1 bay per residence
Hotel	1 bay for two rooms, 1 bays for every 10m^2 public areas

BUILT FORM GUIDELINES

The built form and landscape of the Marina should be directed to enable all areas of the development to be safe and secure for residents and visitors for day and night use.

Heritage buildings located within or adjacent to the Marina precinct should provide a focus within the urban fabric.

Quality open spaces should be integrated to form part of the urban context and development should be of an appropriate human scale.

Optimisation of micro-climate
This will be achieved through the orientation of buildings to provide protection from unpleasant winds and allowing winter sun penetration.

Enhancement of Heritage Buildings
Where appropriate the heritage significance of these elements will be enhanced through the development of appropriate settings for the buildings.

Streetscape
In keeping with the philosophy of extending the town centre character into the Marina precinct and strengthening the integration of one with the other, the building developments within the Marina should be guided to ensure:

- continuity of the commercial and retail building facades at the front property line with zero front and side set backs
- an encouragement of mixed use development throughout the precinct
- continuity of residential building facades at ground level with zero side set backs and with generally up to 1.5m front set backs on Marine Terrace and Foreshore Drive
- development which in general, is between 2 and 3 storeys with the exception of the hotel development, which may be up to five storeys
- wherever possible the Museum presents an active frontage, particularly to Foreshore Drive and contributes to continuity of the streetscape alignment.

GENERAL

A major requirement of the proposed redevelopment of the land within the Marina precinct is the relocation of public utilities. These are as follows:

- Stormwater Drainage
- Sewer Reticulation
- Water Supply Reticulation
- Electricity supply mains
- Telephone supply mains
- Gas mains
- Roads.

The proposed road network layout for Stage 1 Redevelopment (prior to railway line removal) is substantially different from that which exists now except for the existing residential zone (Abrolhos Keys Estate) which will largely remain unchanged.

A strategy for the relocation of services will take into consideration that existing services are operational and that the railway line will remain during the course of Stage 1 Works.

EXISTING ARRANGEMENT

The major carriageway for existing services between Forrest Street and Abrolhos Keys Residential Estate follows Stella Maris Road Reserve. It is likely that all of these services will need to be relocated to correlate with new road alignments in the Stage 1 Works phase.

Other services are located along the Railway Reserve (Sewer Rising Main), Forrest Street, the Bayly Street extension into the Marina and also through Westrail land adjacent to Foreshore Drive. Each of these areas may require partial or total relocation of services to facilitate the new subdivision of land.

A more detailed description associated with each service is as follows:

- *Stormwater Drainage*
  The catchment area for the stormwater system which passes through the Marina covers an extensive area to the east of Chapman Road. This catchment is segregated into four zones.

  One zone picks up on storm water discharge from the Abrolhos Keys Estate and part of the existing Marina carpark and discharges through the northern most breakwater into the ocean.

  The other three zones pick up catchment from Bayly Street up to Durlacher Street and also stormwater drainage along Stella Maris Drive before discharging through the southern breakwater into the ocean.

  The main trunk runs parallel to and between Stella Maris Drive and the Railway reserve.

  Major links across to this trunk from the catchments east of Chapman Road are at Bayly Street just north of the existing Railway Station and Forrest Street all passing under the railway line.

  Further south of Forrest Street other catchments discharge across Foreshore Drive directly into the ocean.

- *Sewerage Reticulation*
  As with the Stormwater System, the sewerage system has an extensive catchment to the east of Chapman Road.

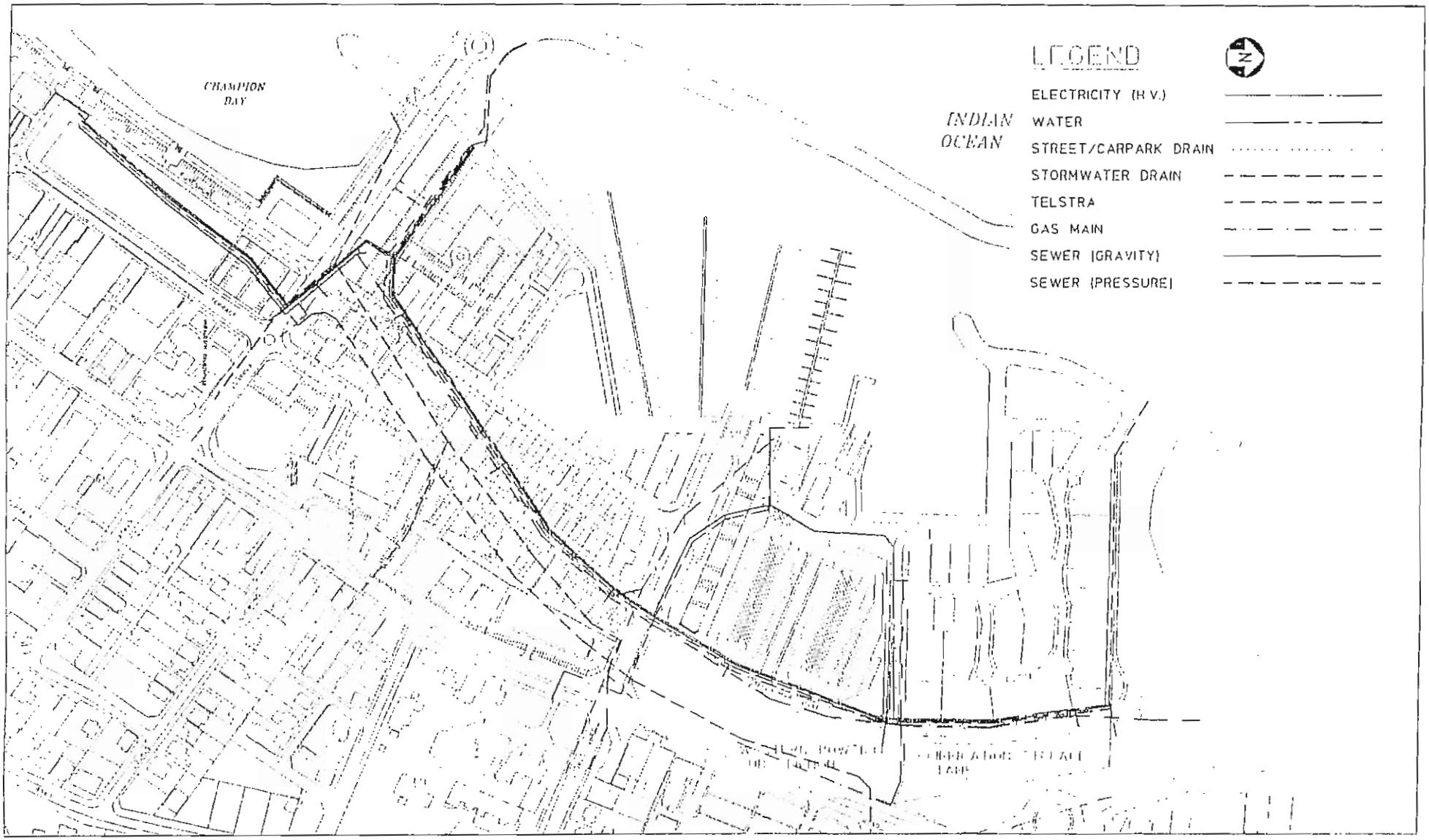
  The gravity main enters the Marina precinct at Bayly Street passing under the railway and along Stella Maris Drive, across Forrest Street and up to a pumping station on the corner of Durlacher Street and Foreshore Drive.

  Branches off this main service a temporary ablution block near the boat ramp area and adjoining allotments on both sides of the railway line.

  From the pump station a pressure main heads northward along the railway reserve before cutting across Chapman Road near View Street. A secondary main running along Stella Maris Drive services Abrolhos Keys and is directed to a pumping station to the north of the Marina.

URBAN DESIGN PRINCIPLES

P8 SERVICES



- *Water Supply Reticulation*
  The water supply mains likewise generally follows Foreshore Drive and Stella Maris Drive providing hydrant points and branches to Abrolhos Keys Estate, the Services Wharf and proposed Partial Over Water Structure location.

- *Electricity Supply*
  Power supplies consist of high voltage underground mains following Forrest Street into Stella Maris Drive up to Abrolhos Keys Estate. Underground street lighting mains also run parallel with these.

- *Gas Supply*
  Gas supply to the Marina cuts across the Railway reserve opposite Bayly Street, branching northwards and southwards on the west side of Stella Maris Drive and extending to Abrolhos Keys and Forrest Street respectively.

- *Telstra*
  The Telstra network enters the Marina at Bayly Street and, as with the gas supply, branches northwards and southwards along Stella Maris Drive.

  Extensions branch off at Bayly Street to the existing Service Wharf area and at Forrest Street to a point in the vicinity of the proposed Partial Over Water Structure.

PROPOSED SYSTEMS

- *Stormwater Drainage*
  The proposed realignment of the trunk drainage system will follow the new main road alignments extending from Bayly Street up to and along Foreshore Drive and connecting back into the existing system near Forrest Street. The main passing to the north of the existing Railway Station will be redirected along Marine Terrace and return through the proposed Station Square carpark passing under the railway line and linking up to the new Foreshore Drive main.

  Due to its size, the existing system which becomes redundant must be removed except for the existing trunk main under the railway. This shall remain until the railway is ultimately removed (Stage 2).

  Street drainage shall feed into the new trunk drainage system whilst drainage from allotments will be contained on site by soakwells.

  Existing stormwater drainage near the boat ramp and Marina carpark shall remain unchanged except where Bayly Street and adjoining tourist accommodation allotments curtail the carpark.

- *Sewerage Reticulation*
  It is proposed where possible to retain existing mains. New gravity mains will follow the major road reserves, ie. Bayly Street, Foreshore Drive and Marine Terrace, servicing allotments on both sides and providing branches into side roads between the Museum site and the Forrest Street extension into the Marina.

  An additional sewer main will be required to service the mixed Commercial/Motel area on Chapman Road. This main will follow the existing stormwater easement up to and along Marine Terrace linking into the existing mains in Forrest Street.

  Development of Westrail land between Forrest Street and Durlacher Street will require the relocation of the gravity and pressure mains in the area to a new alignment on the ocean side of the railway line.

  The existing pressure main from Forrest Street northward can remain serviceable in its present alignment until Stage 2 Works (railway removed) if required. However, the final alignment will be along Foreshore Drive up to and along Bayly Street to Chapman Road and extending up to where it meets the existing main at View Street. It is recommended this main be installed in Stage 1 Works.

  Mains which are no longer required are likely to be abandoned or removed as required.

- *Other Services*

Other services include water reticulation, high voltage electricity including street light mains, telephone and gas mains.

A water supply ring main follows an easement along Bayly Street, through the carpark linking into Beagle Place. Retention of part of this easement will be required where it crosses proposed mixed commercial allotments in Bayly Street.

All other services will need to be relocated once again to proposed roadways; Foreshore Drive, Marine Terrace and Bayly Street.

Extensive reticulation is present in existing landscaped areas along the railway reserve and Stella Maris Drive as well as a storage tank located adjacent to Beagle Place and Stella Maris Drive. The storage tank may need to be relocated in the final stage. Its final position needs to be allowed for probably within the existing public carpark area if it cannot be accommodated in its existing position within the final subdivision plan.

Existing power reticulation along the railway reserve and Stella Maris Drive reserves shall be retained until Stage 2 Works. New reticulation service mains will be required in all new road reserves and along Foreshore Drive up to Fitzgerald Street where landscaping will be installed in Stage 1 Works.

The existing substation building adjacent to Beagle Place should remain on its own allotment allocated in the Stage 2 subdivision. Existing high voltage mains need to be relocated to main road alignments.

It is anticipated that additional padmount or in-built substations will be required throughout the Marina site. Individual large site developments such as the Museum and the Hotel site will require their own substations. Other sites may be supplied from shared substation padmounts depending upon Design Load Demand likely from any proposed new developments.

Gas mains and telephone mains will also need relocation to proposed new road reserves.

SITE WORKS

Land within the Marina site consists of dredged fill between the railway and the existing boardwalk. The existing levels range from 2.2m near the boardwalk to 3.0m near Forrest Street and 2.5m near Beagle Place (Abrolhos Keys Estate).

The Department of Transport has previously confirmed that a finished surface level of 2.5 AHD is sufficient to allow for a storm surge of 1 in 100 years.

Recent geotechnical investigations (June 1997) have qualified the sites as generally uncontrolled fill with recommended treatments required to give the site a classification in accordance with the Australian Standard AS2870-1996 Residential Slabs and Footings. Treatments will involve selective or bulk earthworks to remove deleterious materials encountered, replacement with controlled fill and proof compaction of the site.

Earthworks may be required in Stage 2 when the railway is removed to provide additional fill and blend the former reserve into the surrounding levels.

The proposed realignment of Forrest Street in Stage 1 will involve the relocation of the flashing lights protecting the railway crossing. Due to the likely increase in pedestrian traffic with the development of the Marina, consideration should be given to screening or fencing the rail reserve on both sides. During the construction phase of Stage 1 it is anticipated that the flashing lights will be installed at Bayly Street and the level crossing commissioned with Forrest Street retained for construction access only.

FURTHER CONSIDERATIONS

Facilities for disposal of waste sullage from boats using the Marina need to comply with Water Corporation requirements for disposal into the gravity reserves. A single discharge point on the main wharf will be provided. Refuelling facilities if required will also need to follow strict EPA guidelines.

URBAN DESIGN PRINCIPLES

P9 ENVIRONMENT

ORIGINAL MARINA DEVELOPMENT

An environmental assessment was undertaken prior to construction of the existing marina. Continued development of the site must meet the outstanding conditions and commitments set at that time.

The following section details the environmental assessment and approvals process of the marina development and the requirements for the proposed development.

ENVIRONMENTAL ASSESSMENT

In May 1988 a Notice of Intent (NOI) for redevelopment of the seafront site in Geraldton was submitted to the Environmental Protection Authority for assessment. The NOI was submitted by the Department of Marine and Harbours (DMH) in association with the Town of Geraldton, Westrail and the Geraldton Mid-West Development Authority (GMWDA). It addressed the environmental implications of the proposed development of the site including a new marina, commercial hotel and residential apartments.

In July 1988 the Environmental Protection Authority released Bulletin No 339, *Geraldton Foreshore Redevelopment: Report and Recommendations of the Environmental Protection Authority*. This Bulletin made recommendations for the redevelopment on the following issues:

- adhering to commitments made in the NOI
- water quality of marina and surrounding waters
- details of refuelling facilities, stormwater and run-off containment
- soil contamination of redevelopment area
- monitoring programme of environmental impact during construction
- long term monitoring programme of environmental impact.

Following the Bulletin a number of ministerial conditions were set covering the above recommendations.

CURRENT STATUS

Even though the Marina was constructed in 1989 the ministerial conditions and commitments still apply to the proponent until the proposed redevelopment (as detailed in the NOI) is complete. The outstanding issues covered by the commitments and conditions are:

A1 Submit an annual report throughout the life of the project

M3 Submit details of refuelling facilities.

M5.2 Submit Beach Profiles Report

M5.3 Monitor heavy metal concentration in sediments for an initial period of 5 years.

M5.5 Submit annual reports on monitoring for an initial period of 5 years.

M5.6 Report on monitoring and management program after 5 years of operation.

P9 Prevent pollution of the marina for the life of project.

P10 Remove wrack (seaweed) if necessary from the marina throughout life of project.

P11.2 Renourish beaches on either side of Marina if monitoring shows shoreline stability is threatened.

P17 Prepare a plan and provide equipment to deal with fuel spills, fires, stratification of water mass and impact of storms.

P20 The proponent must manage the entire development before handover of project to a site manager.

CURRENT REQUIREMENTS

Provided the proposed development resembles the original marina development plan then the environmental requirements will not change. The present structure plan is slightly different from that proposed in the NOI. This includes the revision of the layout of landuses within the development and removal of the railway line. These changes do not impact on the conditions and commitments set for the original redevelopment. Hence the revised redevelopment plan can be approved under the existing conditions and commitments. New works proposed for the Marina that relate to completed conditions and commitments may have to be referred to the DEP. For example sediment plumes from rock dumping, beach erosion, dust levels during construction and impact of turbidity on seagrasses. It is not proposed that new works will impact on these issues.

In conclusion, the existing outstanding environmental conditions and commitments set for the original redevelopment plan should be adhered to in the proposed development of the Marina.

URBAN DESIGN PRINCIPLES

P10 GEOTECHNICAL

A full site assessment and report was undertaken by Soil & Rock Engineering P/L in July 1997 and is available from the City of Geraldton.

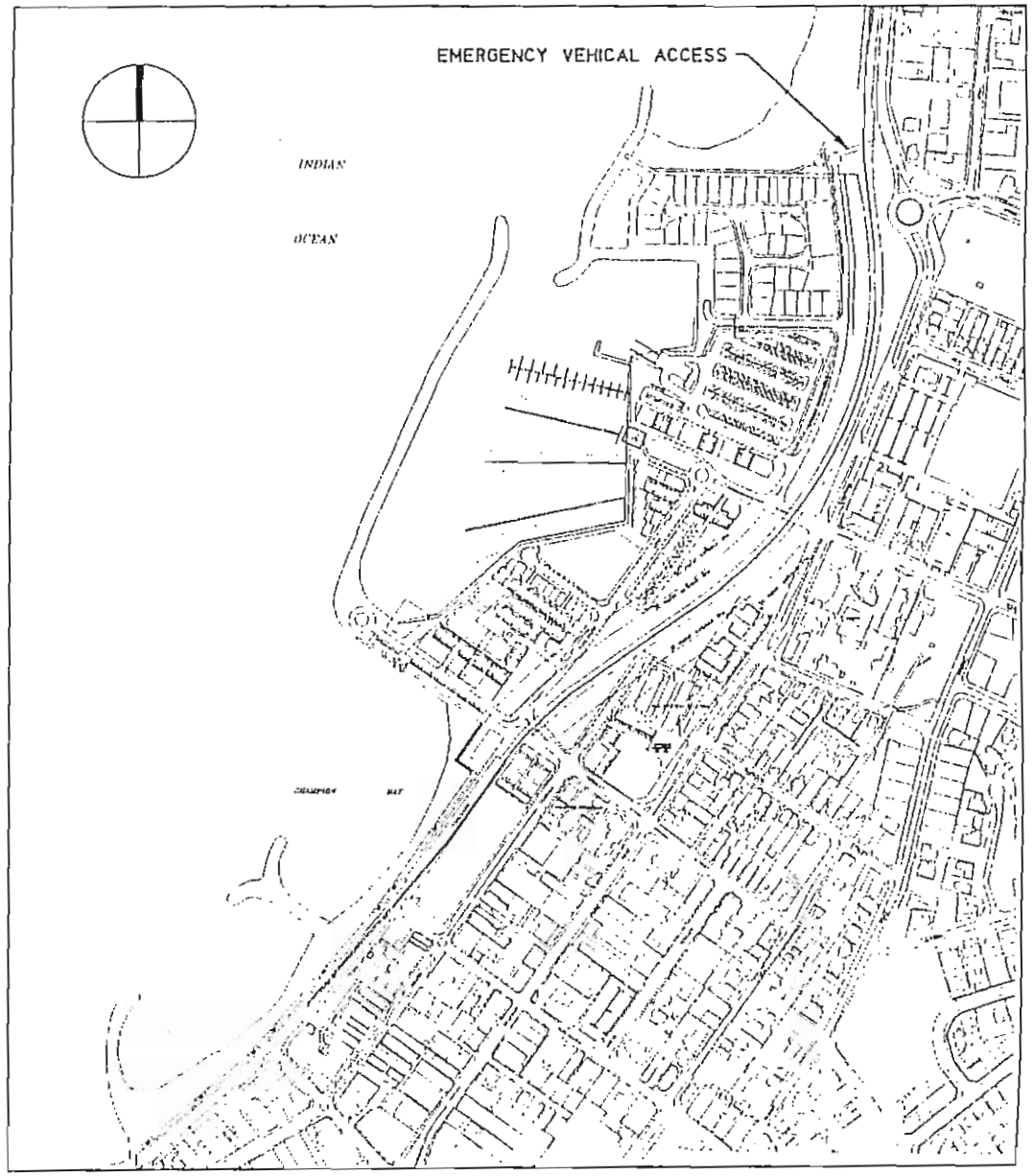
IMPLEMENTATION STAGING

5.1 STAGE 1

First stage of the implementation allows for the retention of the railway line. This will require a 50m setback from the rail alignment to any residential development and a 30m setback to any other building type.

The new Foreshore Drive alignment will be created between Bayly Street and a railway crossing at Forrest Street. Lots fronting the future Foreshore Drive alignment at this point will be developed after the rail is removed.

The future removal of the rail would also allow the extension of Marine Terrace could provide for access to the Railway Station Square, the provision for bus arrival and the development of the lots to the east of Marine Terrace and the south of Station Square.



BATAVIA COAST MARINA GERALDTON

B SUB-DIVISION DEVELOPMENT INFRASTRUCTURE

CONTENTS

ENGINEERING SERVICES

B1.1 SERVICES INFRASTRUCTURE

The services between Forrest and Bayly Streets along Stella Maris Drive are proposed to be relocated to the road alignment of the extended Foreshore Drive within the road reserve. Reticulation of services along the Marine Terrace extension shall serve the lots on this street.

The existing service lines will be extended along Forrest and Bayly Streets to the new alignment along Foreshore Drive.

Stormwater

- Access should be provided for cleaning purposes
- stormwater detention systems to be installed within drainage network to reduce nutrient and pollution transmission from urban development to the ocean, and
- baffle systems to be installed to minimise road spillage entering the marina.

Water Supply

The proposed lots will be reticulated from the existing and relocated water mains.

Sewerage

New soil drains are to be connected to the existing main sewer and its proposed extensions.

Power & Gas

All power and gas is to be underground. The existing city system will be extended as for the other services.

LANDSCAPE OPEN SPACE

B2.1 COURTHOUSE CIVIC SQUARE

A civic square is proposed to acknowledge the significance of the stately Court House building.

The square incorporates additional public parking for peak times in a hard landscaped setting which would support the proposed commercial uses in this location. The foreshore treatment at the junction of Foreshore Drive and Forrest Street, in combination with the proposed civic square, completes a connection between the Courthouse and the beachfront.

B2.2 RAILWAY STATION SQUARE

A forecourt arrival plaza is located to the west of the Old Railway Station. This will provide an appropriate open space setting for this important heritage building and also function as the tourist bus arrival concourse, whilst maintaining vehicular arrival on the east side of the building.

The enclosed nature of the space and the relationship with the parking between Marine Terrace and the extended Foreshore Drive makes the site suitable for weekend markets.

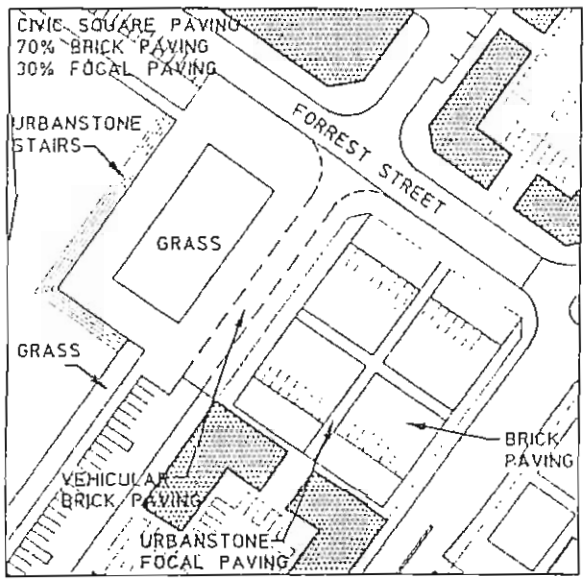
Detailed design of the square will accommodate designated bus embayments.

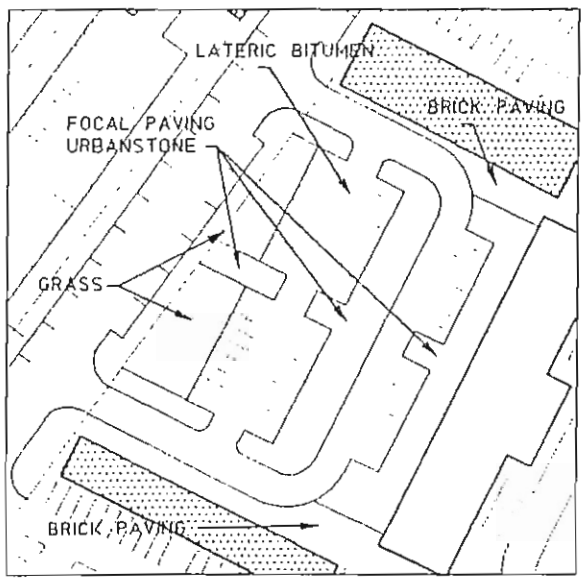
B2.3 MARINA BOARDWALK

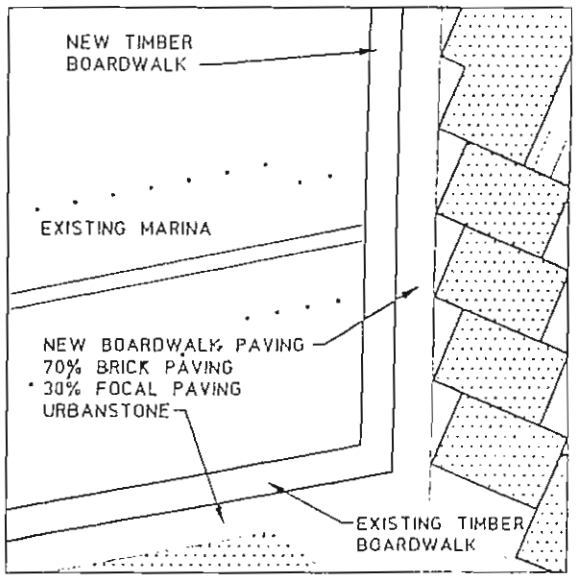
Continuous public access around the Marina waterfront, along with active ground level frontages opening on to a tree lined promenade are the crucial elements in this key public space.

This is intended to create the appropriate balance between a vibrant active commercial frontage on private land and the creation of a truly public urban waterfront.

NOTE: lot configurations are indicative only and subject to the final approved sub-division plan







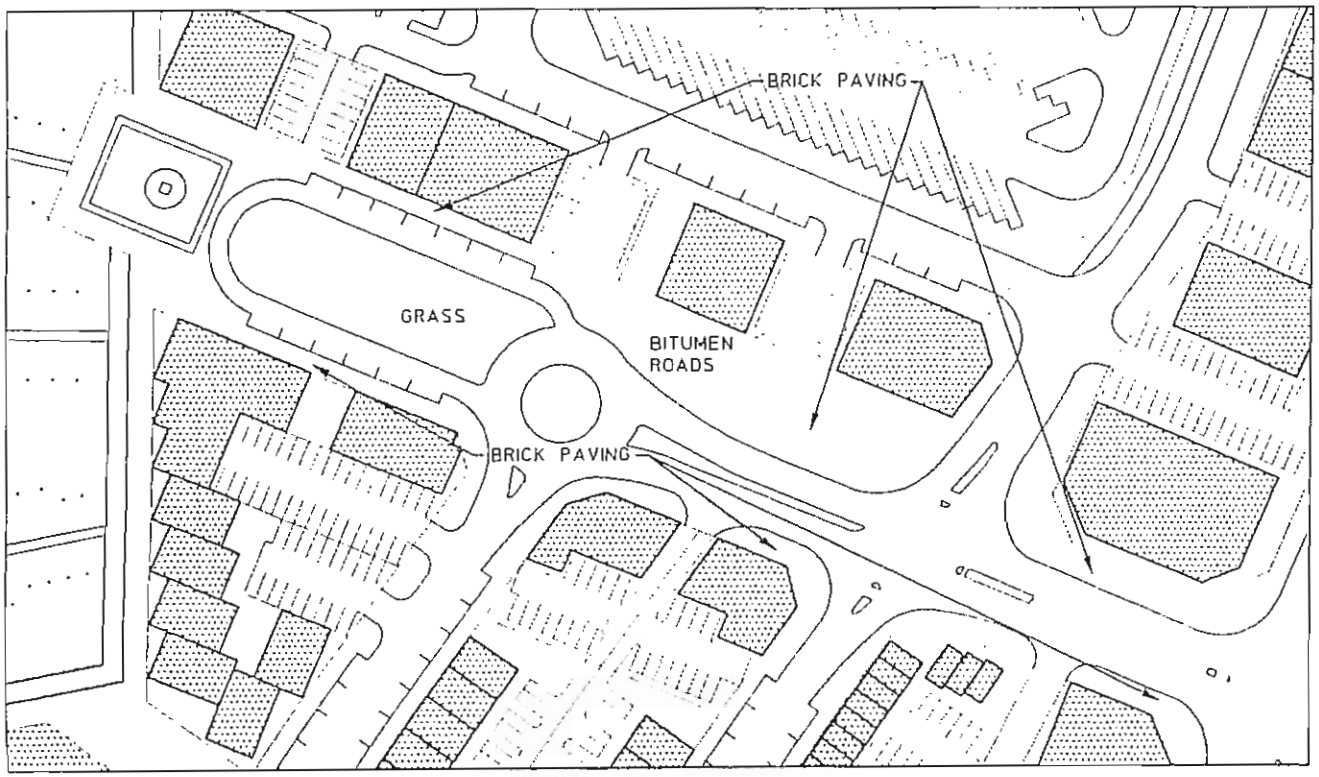
LANDSCAPE OPEN SPACE

B2.4 BAYLY STREET PARK

The extension of Bayly Street through the marina development right to the waters edge provides an integration of the actual marina water body with the existing town fabric on the hill behind.

A broadening of the road reserve has allowed for the creation of a tree-lined park from the boardwalk to the Marine Terrace roundabout.

NOTE: lot configurations are indicative only and subject to the final approved sub-division plan



SPACE CONSULTANTS

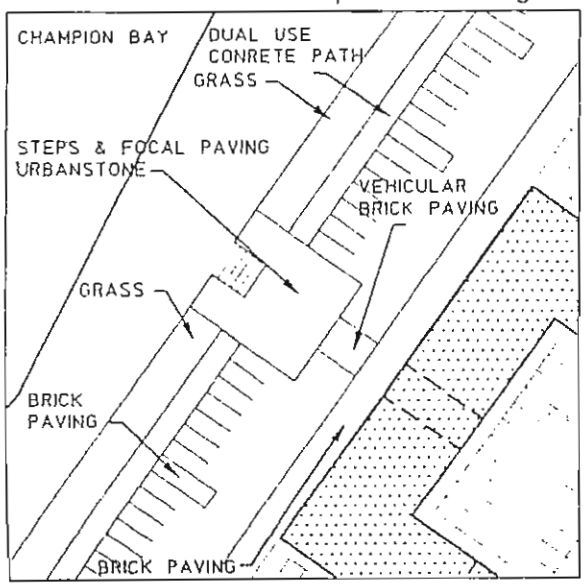
STREETSCAPE

B3.1 FORESHORE DRIVE BEACHFRONT

The removal of the railway line creates the opportunity to establish a very significant relationship between the CBD and the beach.

It is important for this beachfront to:

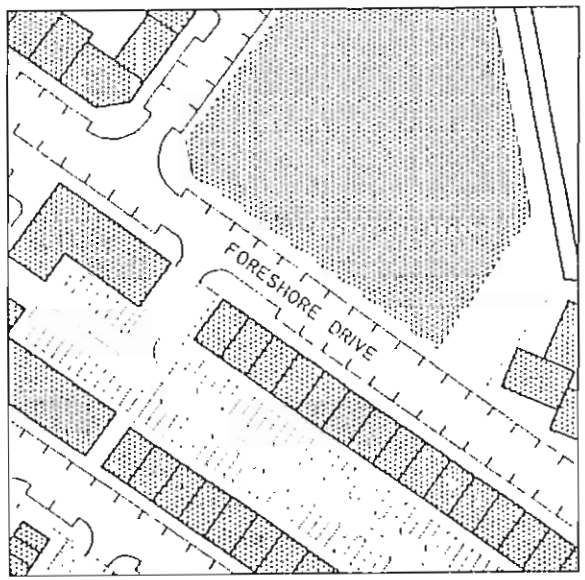
- maximise the accessibility from the town centre.
- provide adequate parking distributed along its length.
- maintain a strong connection for pedestrians, cyclists and vehicular traffic with the Marina area.
- discourage the creation of a thoroughfare for vehicles from areas north of the Marina area.
- optimise the quality of the public amenity of the beach and its parkland frontage.



B3.2 FORESHORE DRIVE EXTENSION

The new beach front parking along Foreshore Drive is connected with the marina development by a crossing of the beachfront plaza in front of the Courthouse building. This is intended to be a pedestrian priority area with cars entering and leaving the beachfront parking area slowly through the plaza.

The extended Foreshore Drive provides the crucial link between Forrest Street and Bayly Street creating a strong visual and pedestrian link between the Marina and the Town's beach. In doing so it also provides the prime location for the new Geraldton Region Museum with both a presence on the water and an active street frontage integrated with the remainder of the Town Centre and enabling convenient service delivery.



It is important that an appropriate scale and feel to the streetscape is created and to ensure that it does not become an alternative route to Chapman Road for through traffic. The road reserve is 20.0m including carriageway, parallel parking and kerbside planting.

NOTE: lot configurations are indicative only and subject to the final approved sub-division plan

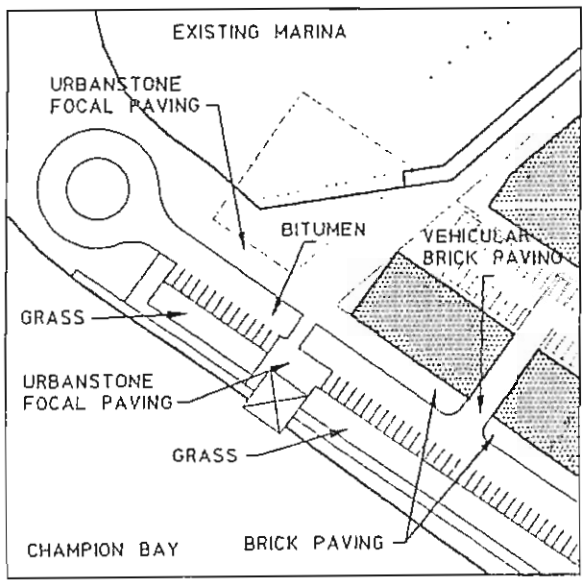
STREETSCAPE

B3.3 FORREST STREET EXTENSION

Forrest Street represents an extremely important element in the strengthening of the integration of the Marina areas with the CBD. It is the transition zone from one to the other.

It has been extended westward to create a frontage between the Marina area and the beach bringing both the CBD and the Marina to one common focal point.

It is important that this frontage is active and therefore of mixed use, with an emphasis on ground level activity which enlivens the frontage, such as cafes and restaurants.



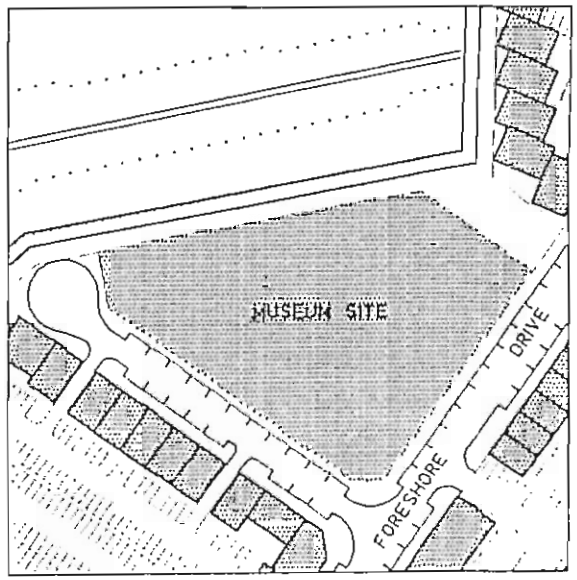
B3.4 GERALDTON REGION MUSEUM

The intention of the Geraldton Region Museum is to establish a strong emphasis on the maritime heritage of the region. In this context, it is appropriate to achieve a direct link with the water's edge while at the same time acknowledging other important criteria for this amenity, such as good visibility, ease of parking, a strong sense of place and sufficient land area to accommodate a building of the desired size.

The proposed integration of the Museum within an urban parkland setting, framed by residential, mixed use and marina activities, creates the opportunity for a very significant urban design contribution by this amenity to the City of Geraldton and the Marina Precinct. There will also be opportunities for outdoor Museum related displays.

The Museum site's close relationship with the adjoining Station Square further creates an opportunity to gain the efficiency of a reciprocal carparking arrangement and close proximity to the bus arrival point.

NOTE: lot configurations are indicative only and subject to the final approved sub-division plan

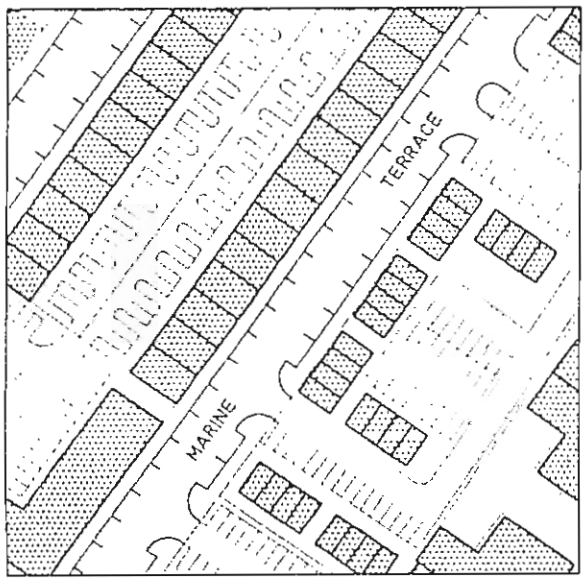


STREETSCAPE

B3.5 MARINE TERRACE EXTENSION

The extension of Marine Terrace into the heart of the Marina precinct has always been a central strategy to ensure that the area is strongly integrated with the Town Centre proper. This will not only help keep a clear structure to the Town Centre but also help to ensure that a separate commercial precinct is not established in competition with the existing CBD.

Like Foreshore Drive it is important that an appropriate scale and feel to the streetscape is created and to ensure that it does not become an alternative route to Chapman Road for through traffic. The road reserve is 20.0m including carriageway, parallel parking and kerbside planting.



B3.6 BAYLY STREET EXTENSION

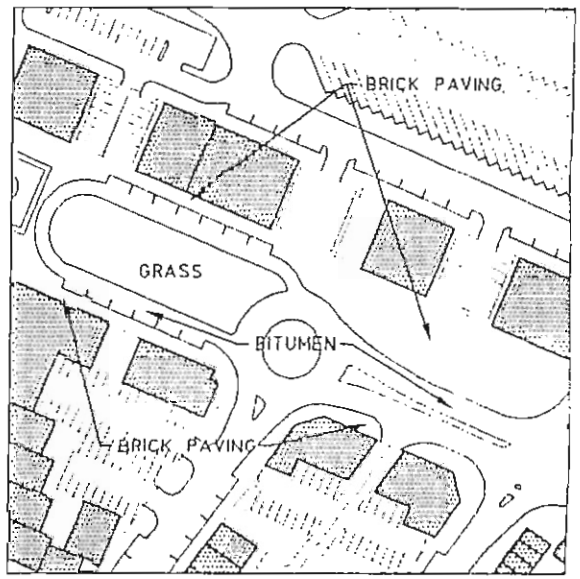
The Civic Parkland terminates the Bayly Street axis at the waters edge and serves as the arrival point at the heart of the boat harbour itself. This park will have commercial development fronting on to an open grassed area with shady trees providing a relaxing environment for local people and visitors.

The principle features of the Bayly Street Parklands are:

- A water vista to the marina through an avenue of Norfolk Island Pines
- An elevated view from the hill on Bayly Street accentuated by the conical shape of pines
- As the divider between the marina carpark and balance of urban development, it marks the northern edge of the CBD
- The mixture of grass, trees and carparking in the park invites people to the waters edge and encourages pedestrian and passive use of the spaces
- The exit from Foreshore Drive turning towards Chapman is achieved without affecting the quality of space of western end of Bayly Street.

Maritime service industry is located away from eastern edge of the existing boat ramp carpark to Chapman Road. The boat ramp carpark is to be extended eastward when the extra parking is required.

NOTE: lot configurations are indicative only and subject to the final approved sub-division plan



STREETSCAPE

B3.7 CHAPMAN ROAD

Chapman Road is an important entry to the centre of the Geraldton townsite. In essence, once the Marina development is implemented, the experienced entry point to the CBD will begin at Phelps Street.

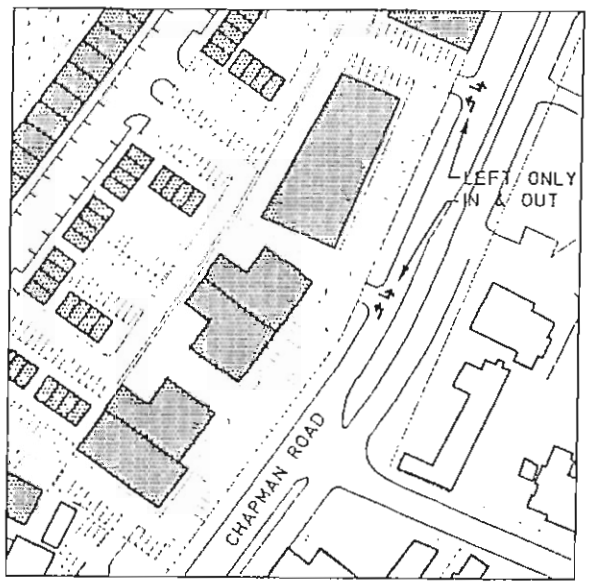
The streetscape from Phelps to Bayly Street is conceived as a tree lined parkland, with substantial planting together with the level change forming a strong transition zone from the northern approach to the arrival at Bayly Street marking the commencement of the CBD.

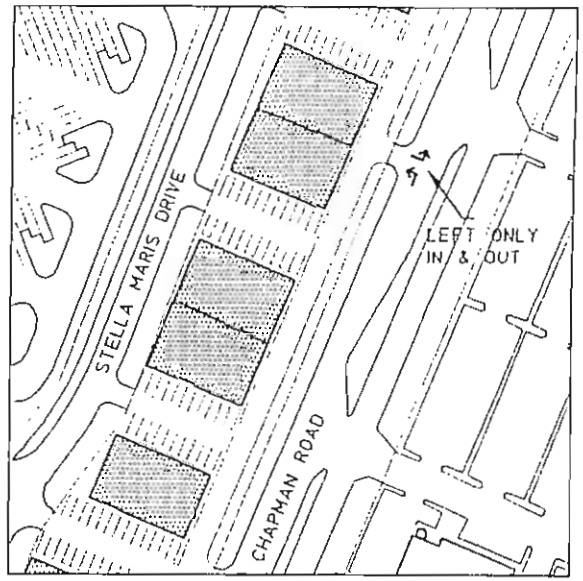
The combined effect of the level difference between Chapman Road and the residential area to the west (Abrolhos Keys), together with the landscape treatment, will provide strong visual separation between Chapman Road and the residences.

Due to the importance of Chapman Road as a distributor and the relatively high traffic levels, there will be limited access to the sites fronting it between Phelps Street and Forrest Street. Thus only left-in left-out turning will be available to north bound traffic.

Building setbacks along Chapman Road provide long vistas to the Railway Station which has significant heritage value within the Town.

NOTE: lot configurations are indicative only and subject to the final approved sub-division plan





BATAVIA COAST MARINA GERALDTON

C INDICATIVE DEVELOPMENT

CONTENTS

CHAPMAN ROAD - STELLA MARIS DRIVE

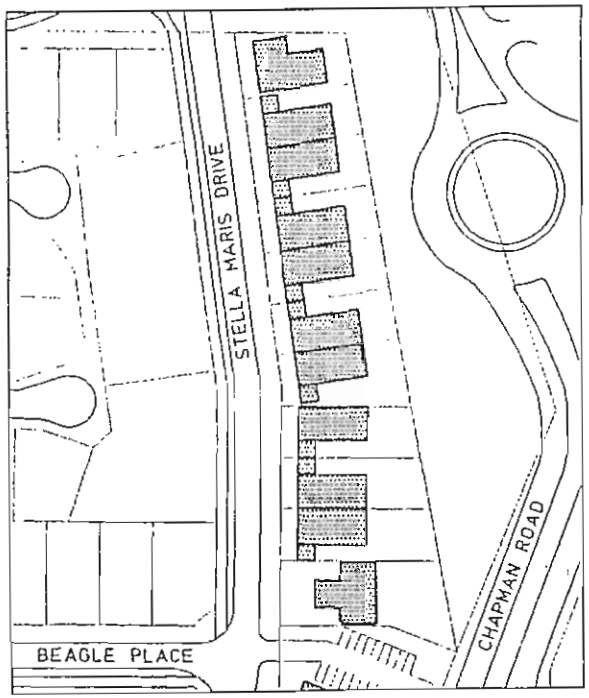
C1.1 ABROLHOS KEYS RESIDENTIAL

Land use Residential

Set backs Ground level residential may have a front set back of 1.5m

Height A two storey height limit shall apply with the option of a third level within the roof space for residential development

Parking Carparking shall be determined by the CBD Carparking Policy.



C1.2 CHAPMAN ROAD NORTH OF BAYLY STREET

Land use Mixed commercial and residential

Set backs Set backs to the Chapman Road frontage shall provide for a cross eased carparking access road for properties north of Bayly Street

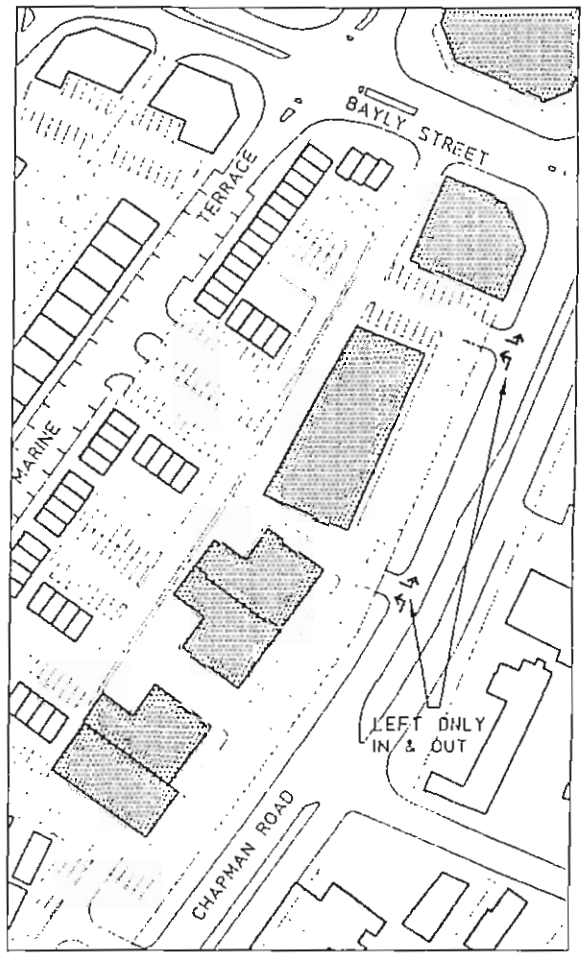
Height A two storey height limit shall apply

Parking Carparking shall be determined by the CBD Carparking Policy.

Parking for properties north of Bayly Street shall be located mid-block as shown on the indicative development drawing

Active Frontages Development to provide active frontages to streets and to both frontages on corners.

NOTE: Existing Abrolhos Keys area Development Controls are subject to Batavia Coast Marina Residential Precinct in City of Geraldton Town Planning Scheme N°3.



MARINE TERRACE - CHAPMAN ROAD

C2.1 CHAPMAN ROAD FRONTAGE SOUTH OF BAYLY STREET

Land use Mixed commercial

Set backs Set backs to the Chapman Road frontage south of Bayly Street frontage shall provide for a cross eased carparking access

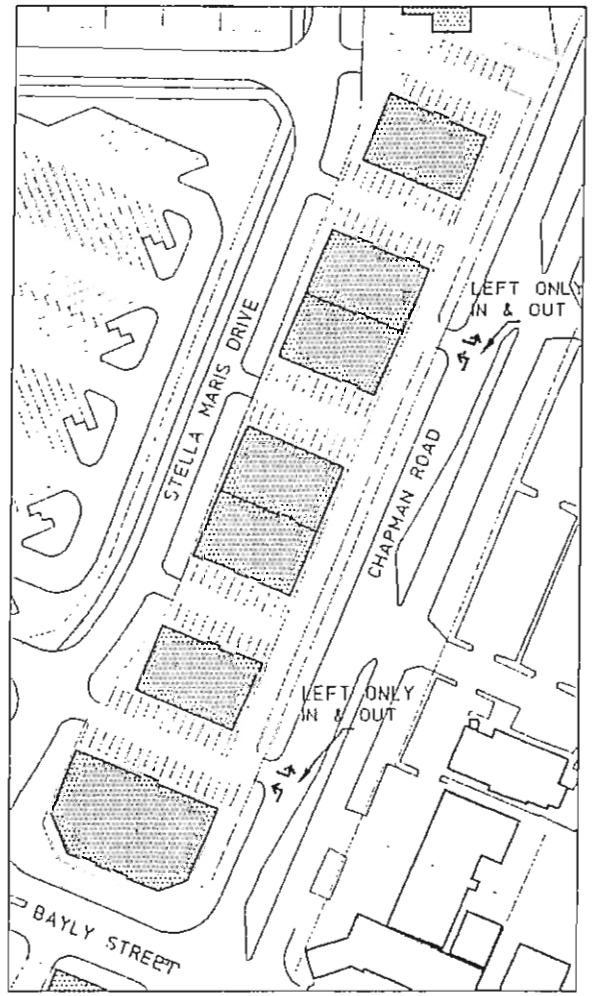
Nil setback to Station Square shall apply

Height A two storey height limit shall apply

Parking Carparking shall be determined by the CBD Carparking Policy.

Parking for properties south of Bayly Street shall be located on the Chapman Road frontage

Active Frontages Development to provide active frontages to streets and to both frontages on corners.



C2.2 MARINE TERRACE FRONTAGE

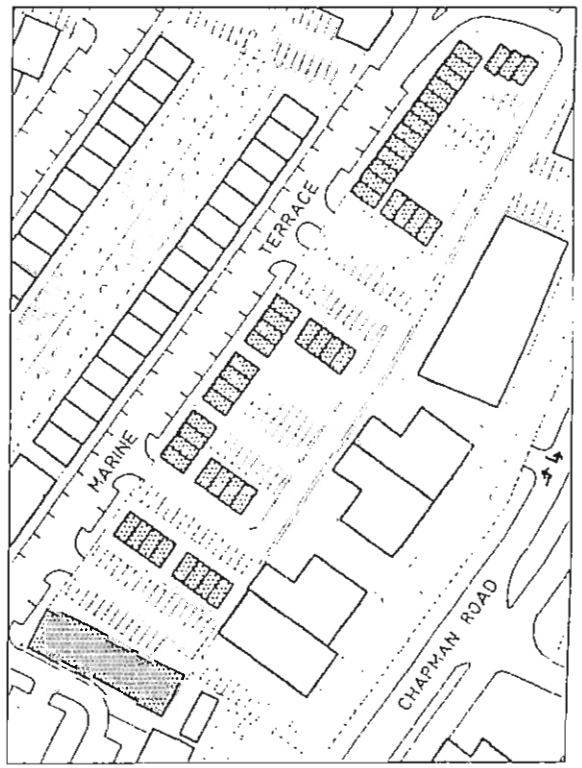
Land use Motel - tourist accommodation

Set backs Nil front and side setback shall apply.

Location of carparking to front of development at Bayly Street is not precluded

Height A two storey height limit shall apply

Parking Carparking shall be determined by the CBD Carparking Policy.



BAYLY STREET

C3.1 BAYLY STREET

Land use Shop, Office, Restaurant to the north of Bayly Street

Shop, Office, Restaurant, Multiple Dwelling south of Bayly Street

Set backs Nil setback to any street frontage (mandatory)

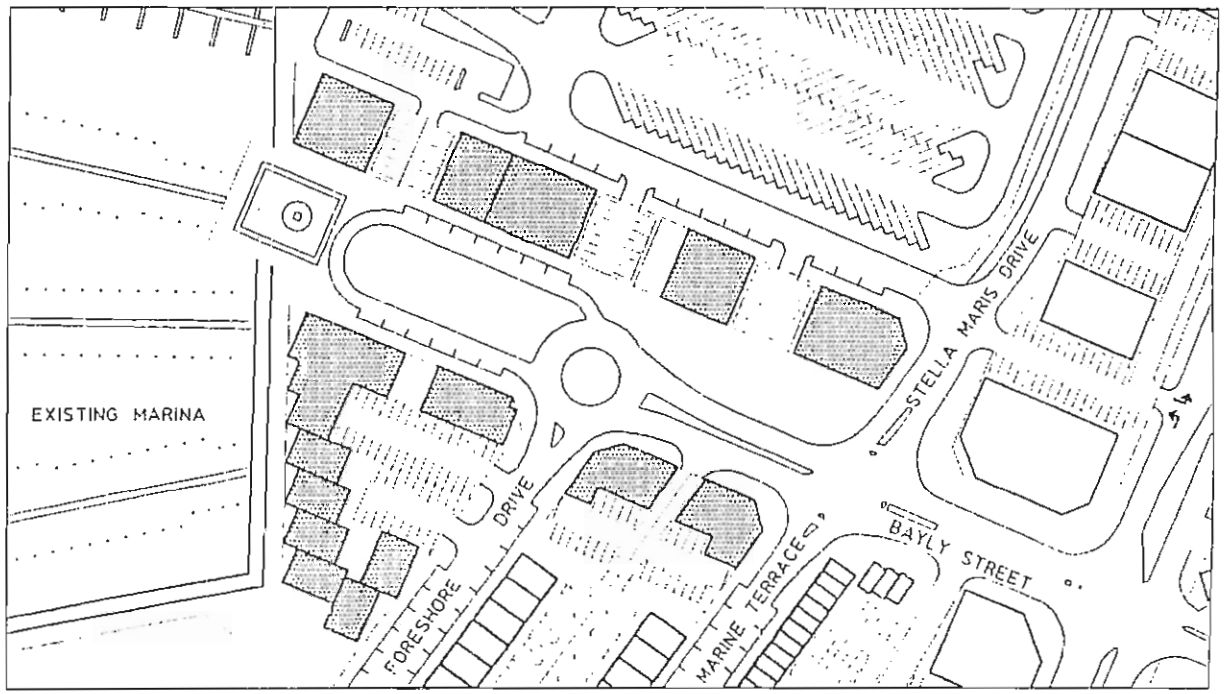
Nil side setback (non-mandatory)

Height A two storey height limit shall apply. A third level within the roof space for residential development may be approved.

Parking Carparking shall be determined by the CBD Carparking Policy.

Active Frontages Development to provide active frontages to streets and to both frontages on corners.

Bayly Street is primary frontage and service road on northern side provides on site parking access.



MARINE TERRACE - FORESHORE DRIVE

C4.1 MARINE TERRACE - FORESHORE DRIVE

Land use — Shop, Office, Restaurant, Multiple Dwelling

Set backs — Nil setback to any street and side boundary

Ground level residential shall have a front set back to between 1.5m and 3.0m

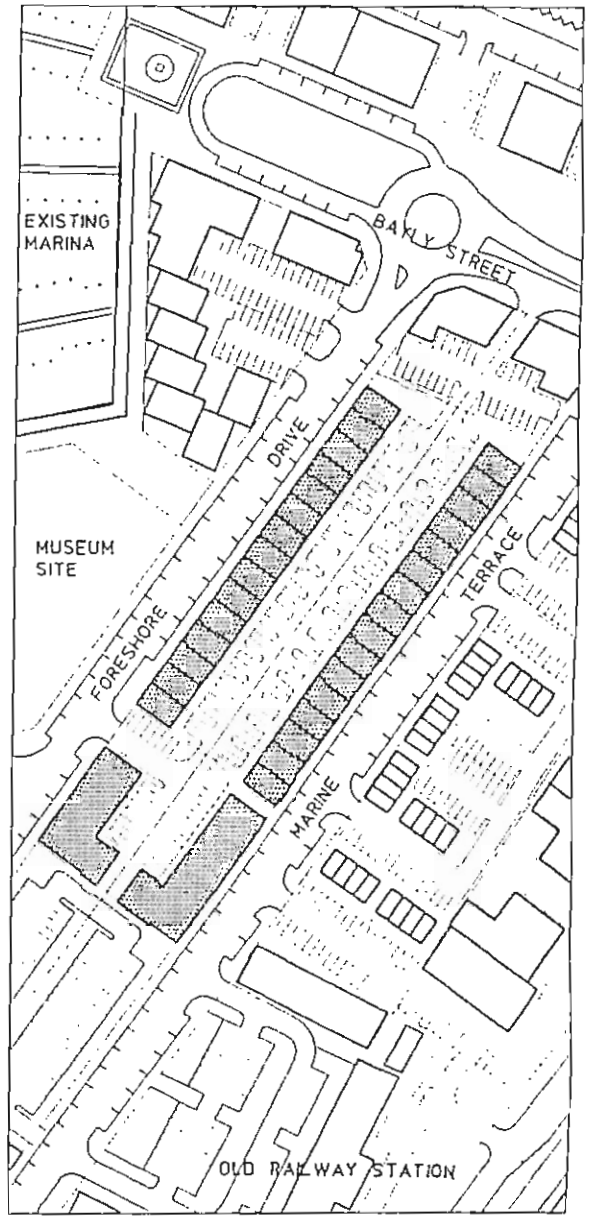
Buildings fronting Station Square shall have a nil setback to that frontage and shall provide an active frontage to the Square at ground level

Height — A two storey height limit shall apply. A third level within the roof space for residential development may be approved.

Parking — Carparking shall be determined by the CBD Carparking Policy.

Parking to properties fronting the Station Square shall be behind the Square frontage, accessed via cross-easement from Marine Terrace

Active Frontages — Development to provide active frontages to streets and to both frontages on corners.



MUSEUM

C5.1 GERALDTON REGION MUSEUM

Land use Museum with shop, office and restaurant

Set backs Nil to any street boundaries (variable upon justification).

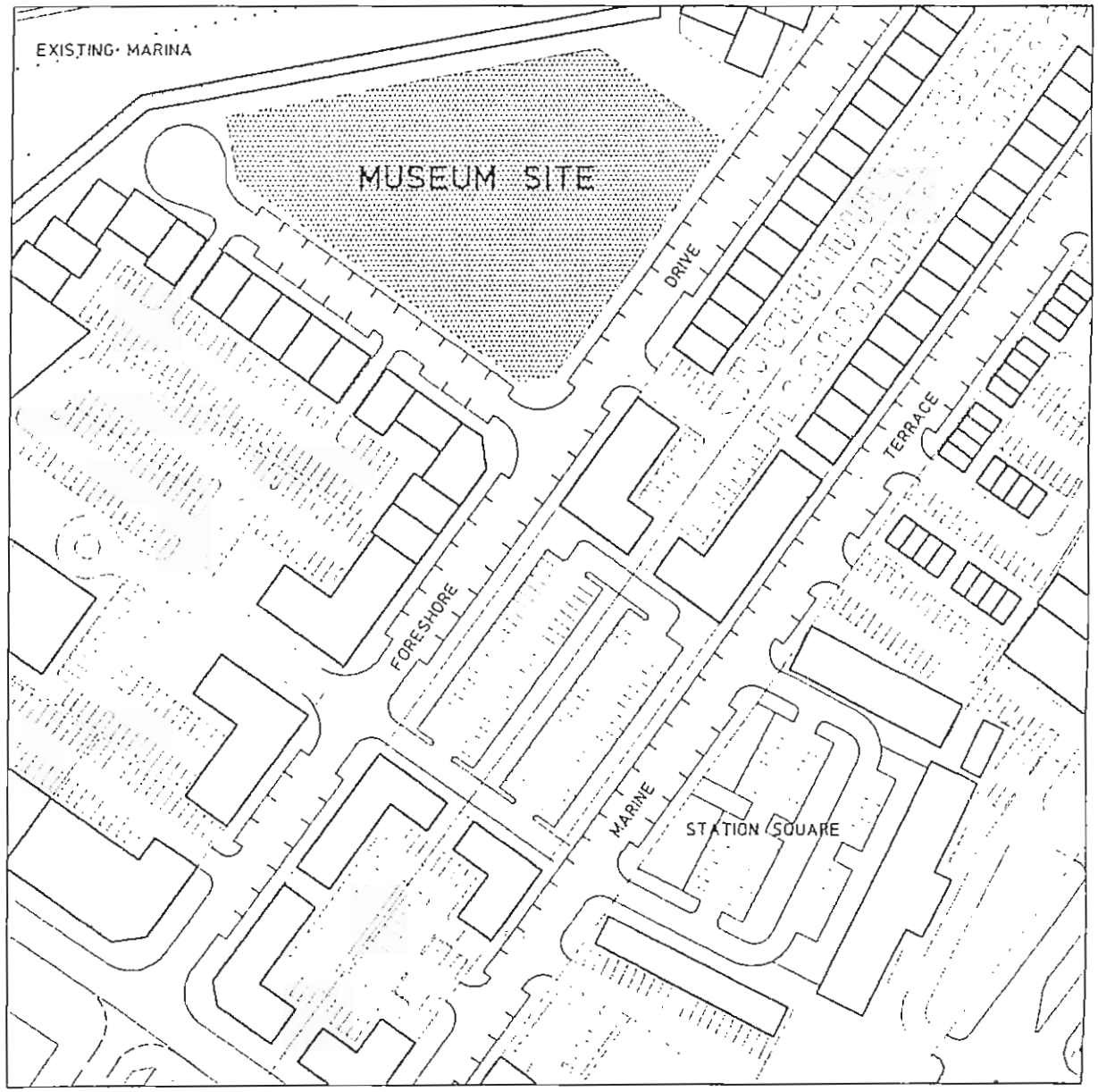
All Museum frontages should be sympathetic to respective surrounding development.

Height A three storey height limit shall apply. Parts of the building may be higher to enhance the buildings civic importance and landmark location.

Parking There shall be no public parking on site.

Staff parking only shall be provided on site in accordance with the CBD Carparking Policy.

Service delivery parking and service dock shall be obscured from view



HOTEL

C6.1 HOTEL

Land use Tourist accommodation, shop, office, restaurant

Set backs Nil to any street and side boundary.

Properties fronting Station Square shall have nil set back to that frontage.

An active street frontage on all sides of the hotel site is required even if occupied by a single development.

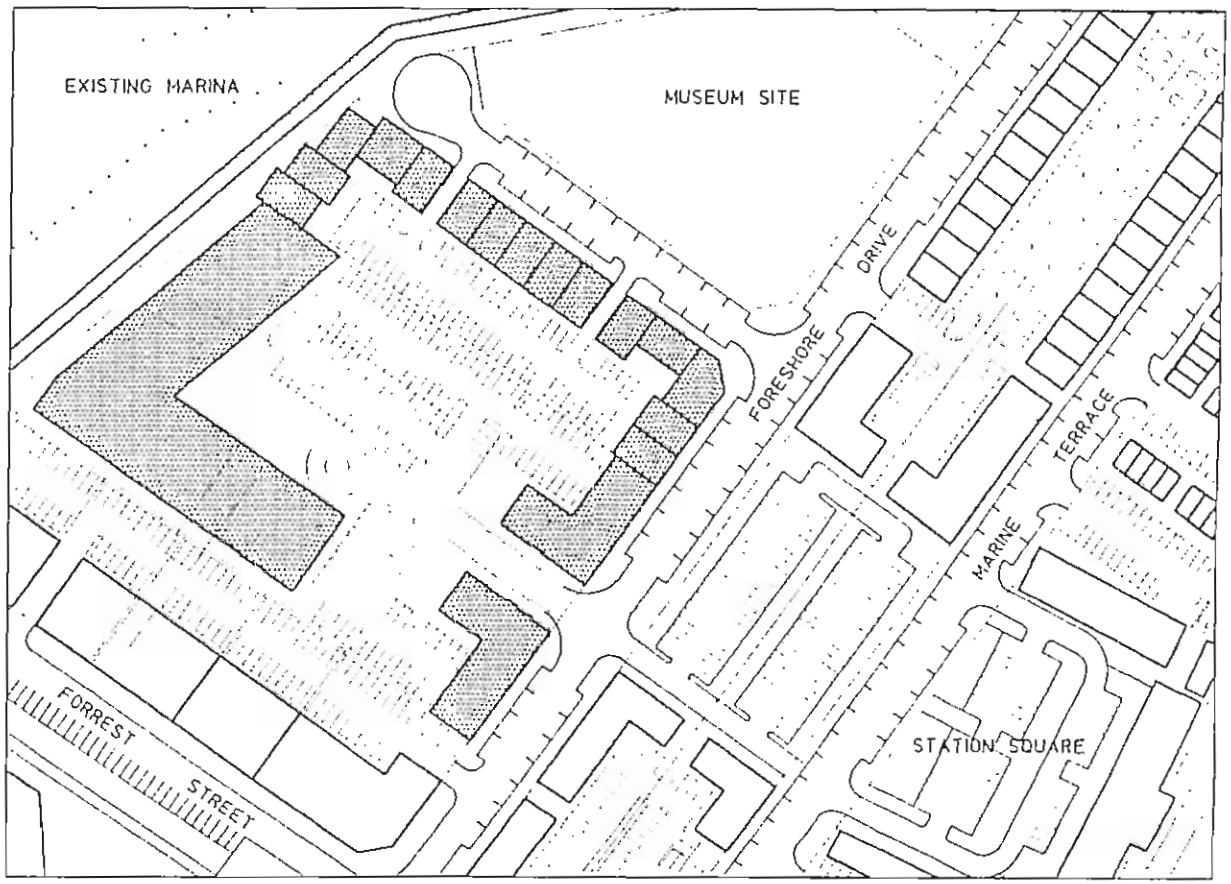
Height A five storey height limit shall apply for the Hotel

A two storey height limit shall apply with the option of a third level within the roof space for residential development.

Parking hotel and other uses:
Carparking shall be determined by the CBD Carparking Policy.

All parking shall be to the rear of both the boardwalk and Foreshore Drive frontages.

Parking to properties fronting the Station Square shall be behind the Square frontage.



FORREST STREET

C7.1 FORREST STREET

Land use

Mixed commercial between Foreshore Drive and Marine Terrace

Mixed commercial and residential, including tourist accommodation, west of Foreshore Drive

This area could be incorporated with the adjacent major tourist accommodation site (see C6.1)

Set backs

Nil front and side set back is mandatory

Properties fronting Station Square shall have nil set back to that frontage and shall provide an active frontage to the Square at ground level

Height

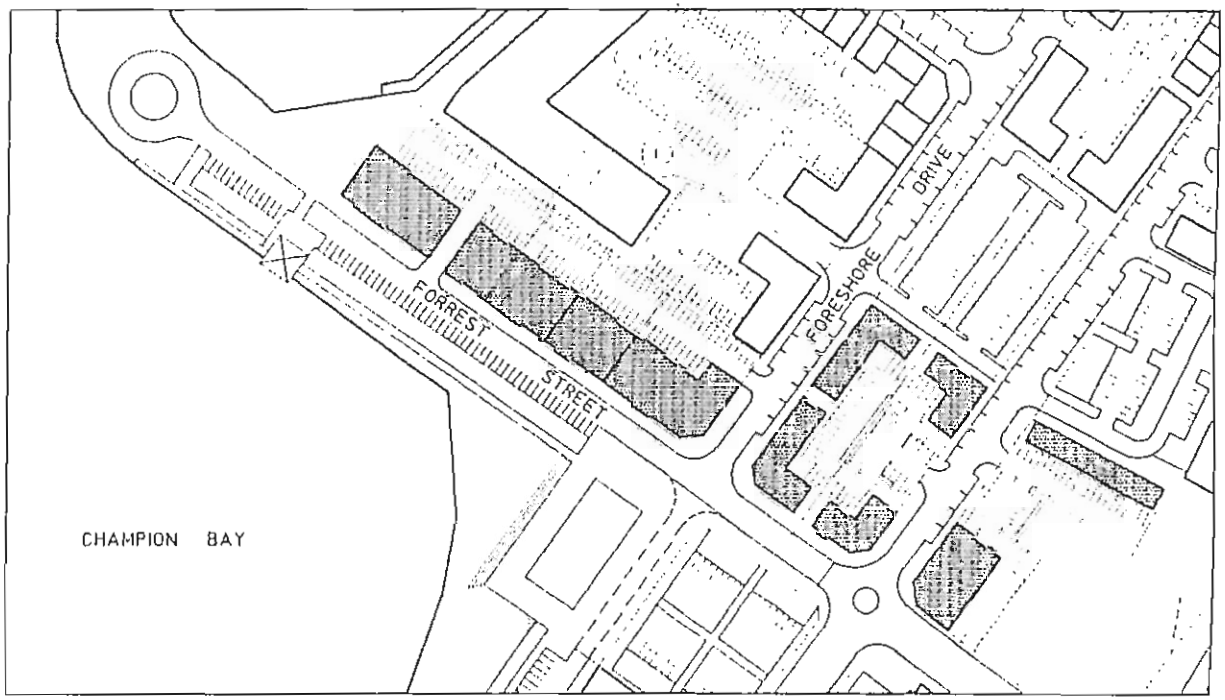
A two storey height limit shall apply with the option of a third level within the roof space for residential development

Parking

Carparking shall be determined by the CBD Carparking Policy.

All parking shall be to the rear of properties fronting Forrest Street west and accessed through a rear common (cross-eased) laneway

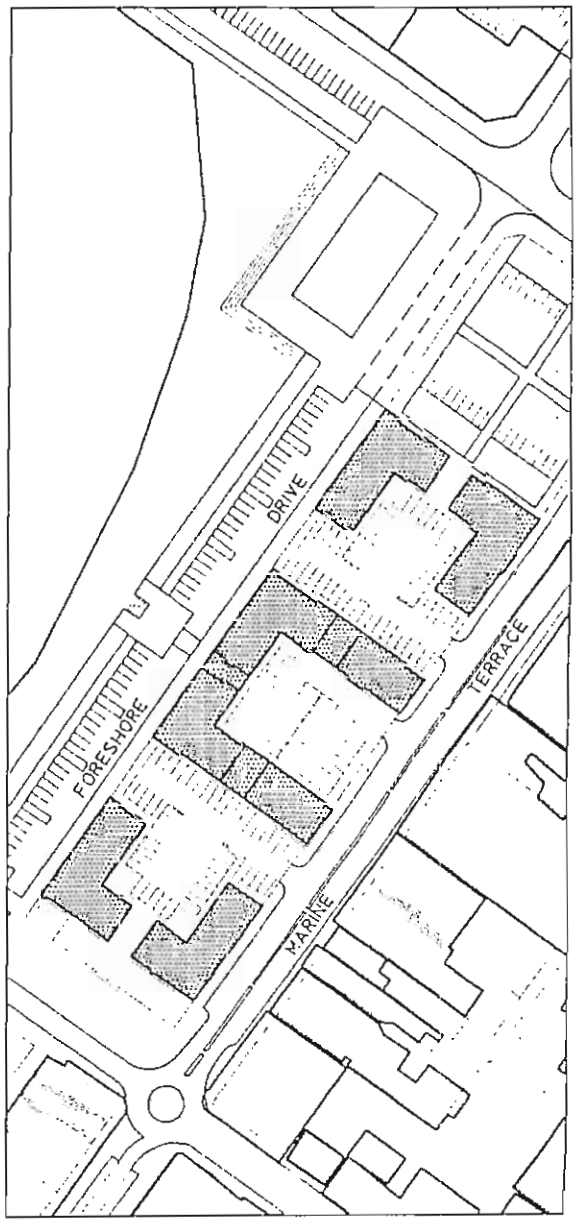
Parking to properties fronting the Station Square shall be behind the Square frontage, accessed via cross-easement from Marine Terrace



FORESHORE DRIVE SOUTH

C8.1 FORESHORE DRIVE SOUTH

Land use	As defined in Table 1 of Town Planning Scheme No 3.
Set backs	Nil to any street and side boundary (variable to accommodate access for car parking).
Height	A two storey height limit shall apply.
Parking	Carparking shall be determined by the CBD Carparking Policy.
Active Frontages	Development to provide active frontages to streets and to both frontages on corners, especially to Courthouse Square.
Note	The development footprint illustrated is indicative only. Alternative development scenarios may have continuous street frontages with all parking internalised with cross eased carparking access (similar to C4).



BATAVIA COAST MARINA GERALDTON

D DEVELOPMENT MANUAL

CONTENTS

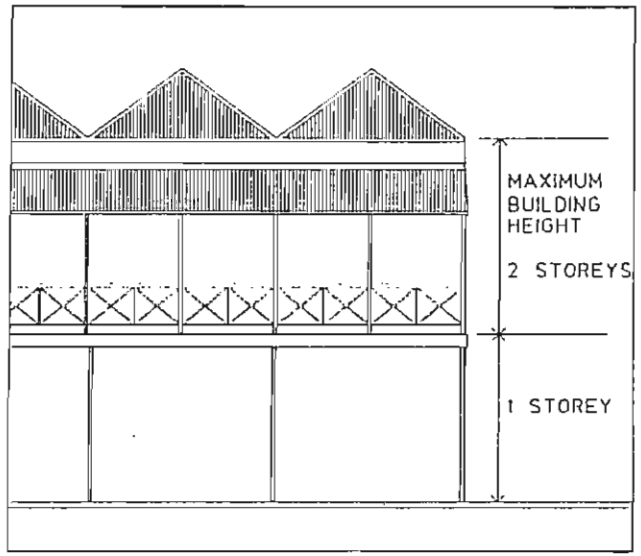
HEIGHT & DENSITY

D1.1 GENERAL

No plot ratio applies to the marina precinct. Density of development will be determined by height limits, carparking requirements and setbacks. There are no limits on the percentage of site cover and there is no landscaping requirement.

A two storey height restriction applies generally. A third level is permitted within the roof space. Higher landmark elements (including towers) may be permitted at Council's discretion. In applying its discretion, Council may give consideration to matters such as architectural consistency with, and amenity impacts upon, surrounding development.

Parapet height for flat roofs should be 8.0m. Eaves height for pitched roofs should be 7.5m. Overall minimum roof height will be determined by D4.



D1.2 HOTEL

Development on the designated Hotel Site may be up to five storeys.

D1.3 MUSEUM

The museum may be up to three storeys with higher landmark elements being permitted.

SETBACKS

D2.1 GENERAL

The definition of setbacks are intended to generally:

- assist in defining the streetscape, particularly its edges
- preserve adequate opportunities and space for streetscape and landscaping improvements
- assist in the process of achieving legible built form
- assist in defining clear spaces for pedestrian movement, circulation and activity
- assist in maintaining the safety of streets by maximising opportunities for surveillance
- accommodate on-site vehicle circulation and carparking as necessary, and
- provide for the most efficient use of development sites.

Setbacks may be varied from those described below (unless they are nominated as mandatory). In considering any applications for setback dispensation, Council shall have regard to the objectives described above, and shall ensure that any variation is not contrary to the general objectives described above, and the specific objectives described below.

D2.2 COMMERCIAL DEVELOPMENT

Development with ground level commercial or retail uses shall generally have a nil setback from the street property boundary. Recesses and truncations to accommodate entries alfresco and forecourts may be favourably considered where they do not exceed more than 40% of the built frontage of the development.

The specific objectives of the commercial setback described here include:

- the clear definition of the street edge with built form
- the achievement of a unified built streetscape, and
- the concentration and focussing of pedestrian activity within sidewalk environments.

D2.3 RESIDENTIAL DEVELOPMENT

Ground level residential development shall be set back no less than 1.5m and no more than 3.0m from the street boundary.

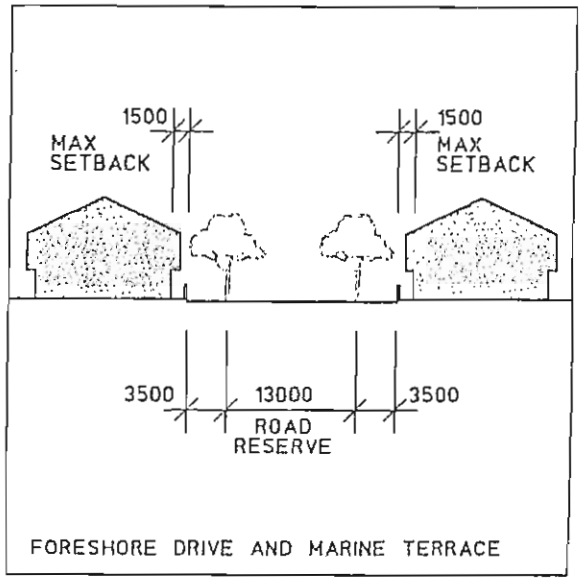
Where commercial development sits above ground floor residential, there may be a nil upper level set back to enclosed rooms or balconies.

The specific objectives of the residential street setback include:

- the definition of semi-public space between the building and the street
- the improvement of safety and security through spatial separation
- the accommodation of reasonable opportunities for the use of the semi-public spaces (eg seating, tables)
- allow opportunities for social interaction between the semi-public space within the front setback and pedestrian in the public street, and
- allow opportunities for landscaping of the semi-public space.

D2.4 CHAPMAN ROAD

Development fronting Chapman Road shall be set back to allow cross-eased carparking from Chapman Road and a landscape strip in accordance with Sections C1. and C2.



PARKING

D3.1 GENERAL

Parking should be generally located behind buildings within central courtyards or to the rear of lots.

Parking shall be generally in those locations indicated in the Indicative Development Plan.

D3.2 CROSS-EASED PARKING ACCESS

Wherever possible cross-eased parking access shall be promoted in accordance with diagram D3.1

D3.3 RETAIL

Parking for retail uses should be provided on site in accordance with the CBD Carparking Policy.

D3.4 COMMERCIAL

Parking for commercial and associated land uses to be determined by the CBD Carparking Policy.

D3.5 RESTAURANT/EATING HOUSE

Parking for restaurant and associated land uses should be provided on site at the rate prescribed by the City of Geraldton Town Planning Scheme No 3.

D3.6 RESIDENTIAL

Parking for mixed use residential and residential use only should be provided in accordance with the CBD Carparking Policy. This parking may be provided undercover provided that the parking bay is incorporated into the building design.

D3.7 HOTEL

Parking shall be provided at the rate prescribed by the City of Geraldton Town Planning Scheme No 3.

D3.8 PARKING DISPENSATION

Council may approve a reduction in carparking requirements specified herein, where it can be demonstrated that actual need for carparking for a particular development will be less than that prescribed under the Scheme or in this document.

D3.9 PARKING CASH IN LIEU

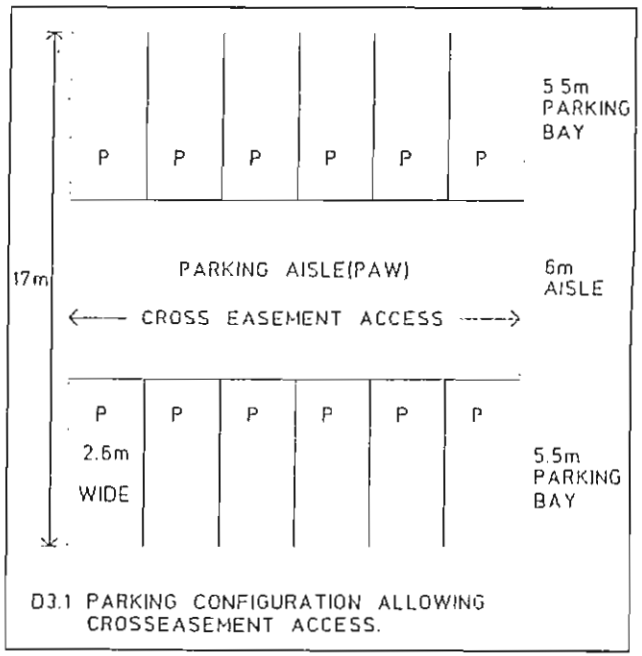
Council may agree to reducing the provision for "in kind" car parking on-site, but will require that the balance of any carparking due will be provided for by a cash-in-lieu payment to the City of Geraldton.

D3.10 DESIGN CRITERIA

Car parking facilities should serve users by:

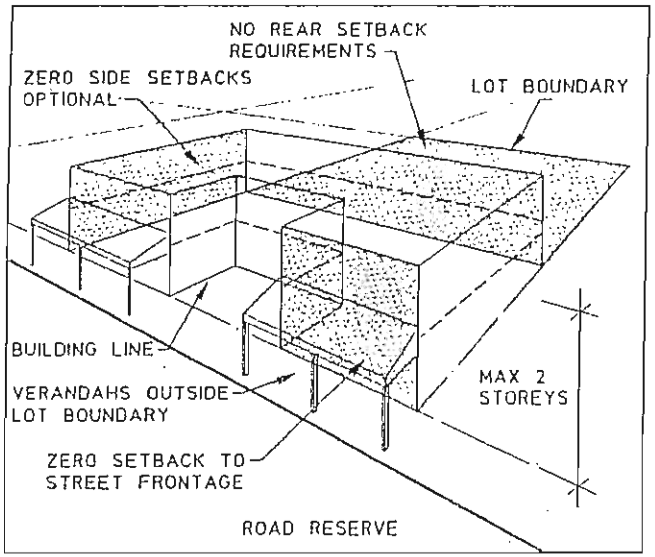
- Being reasonably close and convenient
- Being secure, and allowing surveillance from dwellings and businesses
- Not obscuring the view of the street from main front windows of dwellings and businesses
- Minimising the reflection of car headlights to adjacent dwellings
- Clearly defining visitor parking, including any required disabled parking.

Parking areas should be designed, surfaced and sloped to facilitate stormwater infiltration on-site, and landscaped with shade trees and screening vegetation where possible. Provisions should be made to enable efficient management of all carparking spaces not reserved for exclusive use. Council may require that arrangements are made to the satisfaction of the City of Geraldton at the time of subdivision, for the construction of cross eased parking aisles.



D3.1 PARKING CONFIGURATION ALLOWING CROSSEASEMENT ACCESS.

SETBACKS



D2.5 MUSEUM

Development within the museum site shall have a nil setback to any street boundary.

The specific objectives of the museum site setbacks include:

- the clear definition of a street edge, and
- the protection of opportunities to establish a landmark element at the street corner.

Council may consider any variation to the setback where it can be demonstrated that the general and specific objectives for the site have been met and where it can be demonstrated that the increased setbacks shall allow improved civic and public use of external building spaces.

D2.6 HOTEL

Development within the hotel site shall have a nil setback to the marina boardwalk and street property lines. The specific objectives of the setback include:

- the clear definition of the street and boardwalk edge
- the focussing and concentration of pedestrian movement and activity within the sidewalk and boardwalk environment, and
- the maximisation of an active frontage to the boardwalk in particular.

Council may consider variations to this setback where it can be demonstrated that the general and specific objectives can be met.

D2.7 OTHER BOUNDARIES

Side and rear setbacks may be reduced to nil for any development, except where a greater setback is required to accommodate:

- vehicular access
- vehicular parking
- pedestrian access, and
- servicing or landscaping areas.

ROOFSCAPE

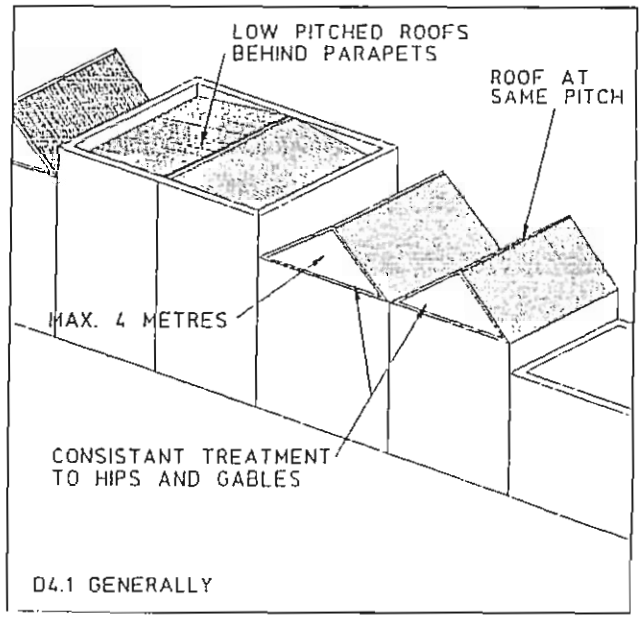
D4.1 GENERAL

All visible roofs should be pitched within the range of 26.5-45 degrees or roofs pitched less than 5 degrees shall be parapeted..

From eaves level to ridge level, vertical roof heights should not exceed four metres.

D4.2 AERIALS, COLLECTORS

Structures and appurtenance such as radio masts and TV aerials, antennas, masts, dishes, solar collectors, air conditioners, plant and equipment which are normally roof mounted should be concealed from view from surrounding streets and public areas unless the developer can demonstrate that these appurtenances are an integral part of the design and contribute to the character and visual interest of the development.



D4.1 GENERALLY

BUILDING ELEVATIONS

D5.1 GENERAL

Walls should be of masonry or timber construction with openings for windows and doors not exceeding 50 percent of the wall area per storey. Exceptions to this shall include:

- ground level retail frontages under verandahs or awnings, where the proportion of openings/windows to solid walls may increase, and
- where it can be demonstrated that a greater proportion of windows are required to maintain adequate surveillance and public safety in public areas.

Walls should be horizontally articulated (or visually divided) into a base, middle and capping. Walls should be vertically articulated (or visually divided) into bays not exceeding seven metres in length.

D5.2 GARDEN WALLS/SERVICE AREAS

The design of garden walls and service area enclosures associated with development should:

- Be transparent to enable outlook from buildings to the street
- Highlight entrances and create a sense of identity
- Provide visual interest to the streetscape
- Be constructed of materials compatible with surrounding buildings, and
- Be compatible with the use of adjoining streets and open space areas.

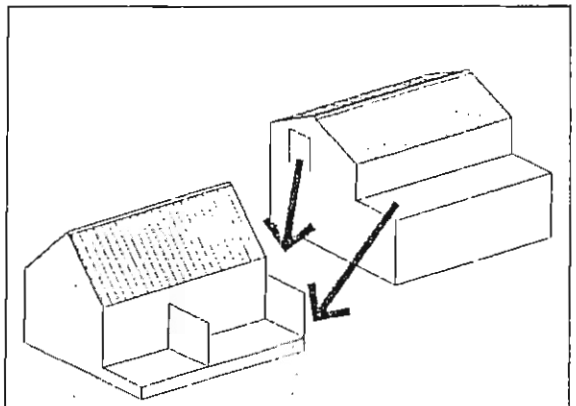
D5.3 PRIVACY

Windows should not be positioned where they may compromise the privacy of adjoining residential accommodation or private outdoor areas. Anticipate the need for and ensure self privacy using screen walls, pergolas, lattice, landscaping etc. between lots.

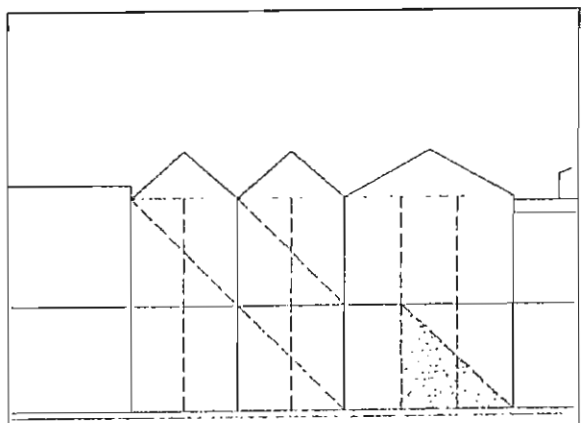
D5.4 ACTIVE FRONTAGES

Development should provide active frontages to streets and to both frontages on corners.

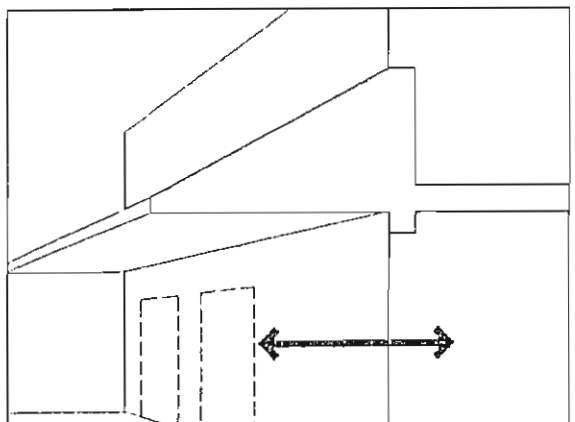
The building form should be predominantly glazed at ground floor and extensive blank walls should be avoided.



D5.3 PRIVACY



D5.1 CONSISTANCY OF STREETSCAPE SCALE AND ARTICULATION



D5.4 ACTIVE FRONTAGES

PEDESTRIAN SHELTER

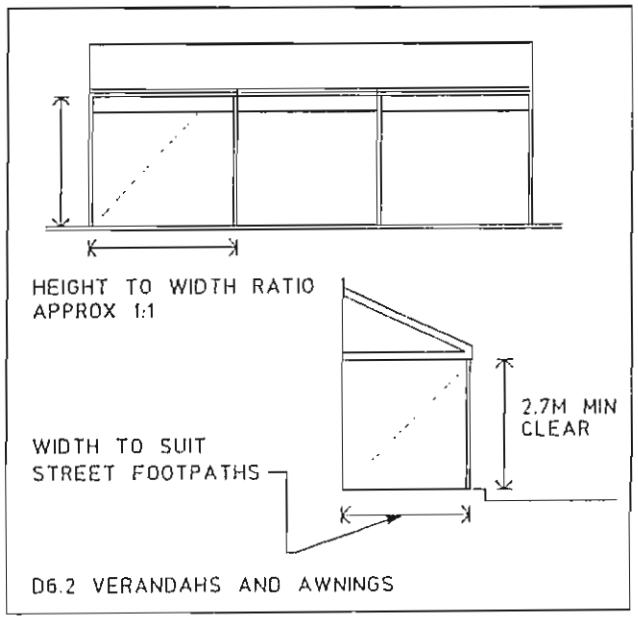
D6.1 GENERAL

Continuous pedestrian shelter along streets, using verandahs and canopies, should be provided wherever possible.

D6.2 VERANDAHS AND AWNINGS

These should comply with the dimensions shown in the illustration.

As far as possible there shall be continuity of shelter for pedestrian movement provided by verandahs and awnings in appropriate areas.



D6.2 VERANDAHS AND AWNINGS

BUILDING SIGNAGE

D7.1 GENERAL

Exterior identification signage should consist of painted signs with any illumination being external to the sign and be integral with the construction of the building. Appropriately detailed backlit or neon signs will also be permitted.

D7.2 LOCATION

Exterior signage should be confined to locations such as:

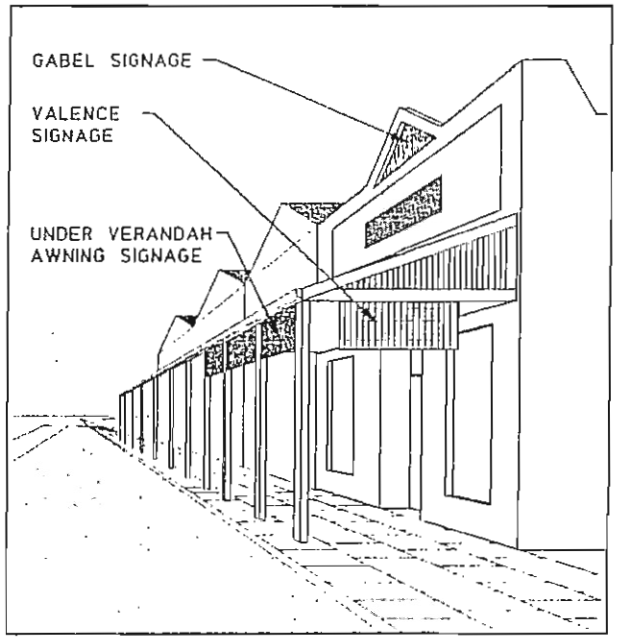
- Flush parapet signs
- Projected hung signs from the upper facade - valance signs
- Under awning signs
- Sandwich boards and other forms of portable signage should comply with existing council policy.

All signage must be approved by the City of Geraldton, and comply with Council's By-Laws and Policies.

D7.3 AREA

Signs should:

- Not occupy more than 10% of the building facade/wall to which it is fixed or painted
- Generally be designed and constructed in keeping with the architecture of the building.



SERVICE ACCESS

D8.1 GENERAL

On street servicing should be from designated kerb side loading bays only.

D8.2 ACCESS

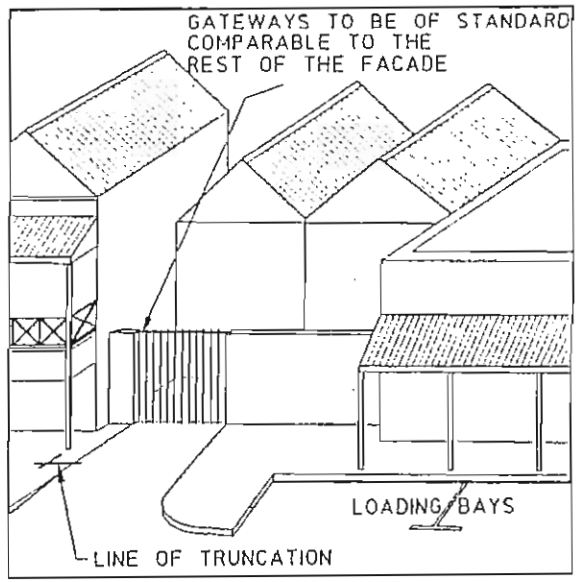
Off street servicing to properties should be walled from public view and should be compatible with the surrounding streetscape. Vehicular crossing points should also be readily visible with adequate sightlines for pedestrian and vehicular safety.

D8.3 SERVICE ENCLOSURE

Service areas such as store rooms, refuse areas, etc should be provided within the building envelope, and should be in keeping with the overall design of the building and the precinct. The design of service areas should be to the satisfaction of the City of Geraldton and in particular should make provision for adequate access to service areas.

D8.4 RUBBISH DISPOSAL

At least one common bin store shall be provided on each development site accessible for service vehicles. The store should be incorporated into the design of the development and easily accessible to all occupiers.



ENVIRONMENT

D9.1 ENERGY EFFICIENCY

Council shall have regard to, and preferences for, the use of building materials whose manufacture required low or moderate energy consumption. Excessive use of materials requiring high grade energy for production (eg glass, steel) is discouraged.

The design of buildings should seek to minimise the use of non-renewable energy through:

- maximum use of daylight for lighting
- maximum use of solar radiation for heating, and
- use of insulation.

The design and construction of buildings should be carried out to optimise the consumption of energy and bring economies to both the construction and operation costs of buildings.

D9.2 GROUNDWATER

No bores or extraction of groundwater is to occur unless permitted by DEP/Water Corporation.

D9.3 GEOTECHNICAL REQUIREMENTS

Shallow footing systems can generally be used for low-rise developments (structures with 1 or 2 floors). However, the existing uncontrolled fill in the vicinity of the former railway marshalling yard is considered suitable to support conventional shallow foundation systems provided the report (Soil & Rock Engineering) recommendations are adopted. The presence of deleterious materials (railway sleepers, disused services, and other building debris) was also noted during site investigations. The outcome of further testing and recommended actions regarding removal can be found in the Soil & Rock Engineering report available from the City of Geraldton.

D9.4 CLIMATE

All buildings should be designed to ensure that appropriate protection is provided from adverse climatic conditions such as the winter and summer south westerly winds and the summer easterly winds.

Buildings should be designed to promote northern solar access to interior spaces in winter and to protect interiors from heat gain in the summer.

D9.5 DEVELOPMENT RISKS

Much of the Batavia Coast Marina development was reclaimed and filled by the developers as part of the project. As with any project of this type, there may be development risks such as storm surge, coastal erosion, wave overtopping and ground subsidence. In addition the proximity of lots to the railway line may result in noise or vibration issues.

It is important that prospective purchasers and developers obtain their own advice on these and any other risks before purchasing or developing land with the Marina.

Storm Surge

Storm surge is due to a cyclone or high wind induced increase in shore line water level and when added to a naturally occurring high tide may cause inundation of low lying coastal land.

Coastal Erosion

The problems of potential coastal erosion need to be addressed by ensuring that there are adequate barriers and an adequate buffer zone between the shoreline and building development.

Wave Overtopping

Wave overtopping, accompanied by the effects of wind driven spray may present problems for pedestrian and vehicle safety as well as for structures and facilities in the immediate vicinity. A recent report on this matter has been prepared by MP Rogers & Associates Pty Ltd, Coastal Engineers.

Ground Subsidence

All dwellings constructed within the Marina complex to date have engineer designed footings. The City will require that the foundations for all residential and commercial developments are designed by a suitably qualified structural engineer. This procedure will also ensure that land owners do not build until they have appropriate advice as to the risks associated with possible subsidence in the area.

For residential construction, substantive certification must be provided by a suitably qualified structural engineer experienced in residential construction. AS 2870-1996 Residential Slabs and Footings - Construction is to be the minimum acceptable standard.

For commercial development substantive certification is also to be provided by a suitably qualified structural engineer experienced in commercial construction.

In addition, before issuing a Building Licence, the City will require the owner to acknowledge in writing that he or she is aware that the property may be subject to development risks.

Copies of Reports

To assist owners and developers to identify and assess the possible development risks, the City has available the following reports:

- Report by Department of Marine and Hilsons, Engineering Division No. DMH 4/88;
- A geotechnical soils report prepared by Golder & Associates, Soil Engineers dated;
- Report by Australian Civil and Structural Pty Ltd dated 1 April 1998;
- Reports by MP Rogers & Associates Pty Ltd, Coastal Engineers dated 25 February 1998 and 10 March 1998;
- Reports by Soil & Rock Engineering Pty Ltd, consulting geotechnical engineers and geologist, dated 2 December 1997, 30 April 1998 and 14 May 1998;

Copies of each of these reports are available for inspection at the City's offices or may be purchased at a cost which cover the City's photocopying expenses.

However, as the City will not be responsible for any loss or damage arising from these or any other development risks, prospective owners and developers are strongly encourage to obtain their own advice before purchasing or developing land within the Marina.

PUBLIC ART

D10.1 FORM

Public art may be of a permanent or temporary nature and may take the form of:

- Freestanding (or free flowing) objects located on the grounds, on a support structure, on a wall or suspended in the air, or
- Elements integrated into the surfaces of a building facade and internal or external paving.

D10.2 CONTEXT

Public artworks should be site specific, relating thematically to the use and identity of the building or public open space within the broader context of Geraldton.

D10.3 MATERIALS

Where the artwork is intended to be permanent, the materials used should be durable and appropriate for use in an urban public space.

Where the artwork is intended to be of a temporary nature, the materials should be appropriate for the anticipated life of the artwork in an urban public space.

D10.4 PUBLIC SAFETY

The design and construction of the artwork, permanent and temporary, should be appropriate to the need for public safety.

D10.5 MAINTENANCE

Maintenance responsibility for the artwork should be establish at the time of commissioning. A conservation and maintenance repair report should be completed by the artist following the completion of the artwork and lodged with the responsible party.

D10.6 PROVISION

Council requires the provision of public art for each development in accordance with the AFEA and Ministry for the Arts "Percent for Arts" guidelines.

Council may consider dispensation to this requirement, but in so doing, shall have regard to:

- the suitability (or lack of suitability) of any space available for the work(s) in terms of accessibility, exposure and size
- the degree of ornamentation and presentation already incorporated within the development
- whether any other dispensations have already been granted for the development, and
- the participation of he project in any broader public art or cultural project in the Marina Precinct.

This provision does not apply for residential development.

LANDSCAPE & OPEN SPACE

D11.1 OPEN SPACE NETWORK

The desire to strengthen functional and perceptual links with the Town Centre has determined orientation of streets and open spaces within the development. Each one has been located to correspond to a key vista or an axis with an existing street and thereby reinforcing the street structure and relating the development strongly back to the town.

Organisation of buildings and landscape treatments should:

- Reinforce and enhance this structure through appropriate site planning.
- Ensure tree planting allows for full growth canopies maintaining openness of the key vistas identified P1 Urban Form

D11.2 MATERIALS AND PLANTING

Where landscape treatments abut existing public open space and street paving and planting, private space landscaping should either match in with or be compatible with those in the public space.

D11.3 PUBLIC SAFETY

In order to encourage activity throughout the public space the maintenance of public safety is a high priority.

- Avoid obscured corners and dead-end alleys.
- Public spaces must create a network with a high level of visual exposure.
- Do not create spaces with blank walls which are not overlooked from occupied space.
- Security and safety lighting must be provided throughout.

D11.4 MAINTENANCE

Landscape treatment to public areas should be sustainable and have a net lo-maintenance demand. Landscaping treatments should be to the satisfaction of the City of Geraldton and be capable of ultimate maintenance by the City.