

Volume 1:

URBAN DESIGN PRINCIPLES
Site Analysis and Development Plan

ROYAL REHABILITATION CENTRE SYDNEY
C O N C E P T P L A N 2 0 0 5
14 DECEMBER 2005



1. **Urban Design Principles of the Site Development Plan**
2. **The Existing Site & Its' Characteristics**
3. **Site View Analysis**
4. **Site Development Plan Principles**

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RRCS CONCEPT PLAN Urban Design Principles of the Site Development Plan

1.0 Introduction

Prior to commencing the Site Development Plan, a detailed analysis was undertaken of:

- The existing site and its characteristics;
- View Analysis, both within and external to the site;
- The relationship to surrounding and adjoining existing development.

2.0 The Existing Site and its Characteristics

Mapping of the site included the following aspects:

- Existing Buildings and Roads;
- Terrain
- Hydraulics;
- Climate;
- Landscape/Mature Trees;
- Site Access/Egress;
- Public Transport;
- Site Arterial/Impacts;
- Retail/Commercial Centres;
- Composite Site Analysis.

3.0 View Analysis

Also, a thorough visual analysis of the site has been undertaken which includes:

- Views from the site to surrounding areas, both close and distant;
- Views into the site from surrounding areas;
- Adjoining Built Form;
- Existing buildings and roads on the site;

The Adjoining Built Form is characterized by:

- To the South East, along Charles Street – existing 2-3 storey (some basement/garages) residential detached houses. At the junction of Charles Street and Morrison Road, the development pattern changes to retail with the location of the Putney neighbourhood shops;
- Along Morrison Road, to the South West of the site, the pattern of development is predominantly 1-2 storey residential detached houses;
- To the North West, along Princess Street, the development is again characterized by 1-2 storey residential detached houses;
- To the North of the site, along Jirley Way, the development is duplex/attached residential housing, which terminates in a cul-de-sac adjacent to the West boundary of the site;
- The North West boundary of the site borders the adjoining Dalton Gardens Retirement Village, a series of 3-4 storey buildings in a landscaped setting;
- The North East boundary of the site is defined by the arterial Victoria Road which comprises, on the opposite side, a mix of residential and retail uses.

4.0 Site Development Plan Principles

Based upon the preceding information, mapping was undertaken to define the principles, which are summarized in the following:

- **RRCS Facility Location**
 - definition of the best location for the new RRCS;
- **Low Rise Zones**
 - for new detached houses and townhouses;
- **Medium Rise Zones**
 - for new Apartments;
- **Transition Zones**
 - along site boundaries to adjoining development to control impacts of new development;
- **Landscape Potential**
 - a range of active/passive, hard/soft, informal/formal spaces throughout the site to complement building forms;
- **Built Form: 1, 2 & 3**
 - these maps illustrate the adaptation process of new building elements within the site constraints;
- **Built Form: 4**
 - this map is the principles diagram illustrating fitting of built form to incorporate: site access points, open vs enclosure paths and road structuring;
- **Site Planning**
 - this is the final map which illustrates the process of adapting new building forms for the Concept Plan and includes:
 - **RRCS Structure Plan;**
 - **Medium Rise Development;**
 - **Low Rise Development;**
 - **Transitional Development;**
 - **Site Landscape Pattern;**
 - **Site Paths and Roads.**
- **Revised Concept Plan**

Based upon meetings and information from Department of Planning, the following additional information has been prepared:

- **Land Use;**
- **Landscaped Space;**
- **Residential Density;**
- **Development Parcels: Site Area and Floor Space;**
- **Road Hierarchy;**
- **Building Heights/Setbacks;**
- **Section 1 & 2;**
- **Development Proposal;**
- **Recreation Circle;**
- **Aerial Views 1 & 2.**

5.0 Road Network and Hierarchy

The proposed new road layout is based upon a hierarchy of roads complying with AMCORD Guidelines:

- **Minor Collector Streets**
- **Access Streets**
- **Access Places**

(refer page 15, C3HK report, July 2005)

In developing the geometry of the road network, extensive consultation and advice has been obtained from the following expert consultants:

- **Transport Planner** on traffic control measures, safety issues, site access points, gradients, parking and geometry.
- **Landscape Planner** on topography, accessibility, pedestrian/vehicle paths and movements and safety issues.
- **Civil Engineer** on topography, accessibility, locations of entry points and gradients.
- **Property Consultant** on staging of development and access to development parcels.

Based upon the Site Analysis and with inputs from the above specialist consultants, the proposed Road Network and Hierarchy has been concluded as the best solution for the Concept Plan.

6.0 Site Planning Philosophy

Given the unique varied topography, views and access points of the existing RRCS site, the Concept Plan has as its objectives:

- To create a series of elegant built forms which vary in height and plan form to both define landscaped spaces and create a rich and varied experience for residents and visitors, moving through the site;
- To create a series of transitional "low-rise" residential zones, detached and townhouse forms, which integrate seamlessly with adjoining residential development;
- To provide the opportunity for the creation of new residential built forms which have as the precedent John Woods Royal Crescent and Circus in Bath. These housing developments in England, introduced a new type of public space, where the "architecture and the landscape are so integrated that they balance each other and neither one prevails over the other". Paul Zucker, Town and Square – From the Agora to the Village Green;
- To create a central RRCS circle as the focus for both community and rehabilitation activities. This circular form creates a powerful statement of the importance of activities such as basketball, swimming, meeting and childcare as linkages between active and passive residents of the site. The circular form also provides the setting for the "History Walk" experience which will record important events and people who have contributed to making RRCS;
- To create an environment of built and landscaped forms which accommodate the new RRCS in its quest as a "world leader" in the provision of rehabilitator services. In conjunction with the RRCS circle, the new health care facilities will define this site as an "International Icon" for the delivery of health care services.

7.0 In Summary

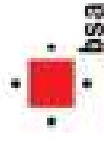
As a result of the planning and Urban Design work undertaken for this Concept Plan submission, it is concluded that a Plan which has as its philosophy the objectives outlined in Section 5.0 above is an appropriate response to this location. This Urban Design philosophy stands in contrast to the stated philosophy of Ryde Council which would impose a dull grid pattern of streets and blocks, derived from the surrounding built pattern, more fitting a central CBD location. Such a development plan would deny the unique topography and characteristics of this site.

The Concept Plan design does relate to the surrounding street system by utilizing the 4 existing entry points to the site which have been in existence for many years. In addition, the Concept Plan responds in a creative process to utilize the topography, views, landscape and new built form in an Urban Design solution, fitting for this iconic site.

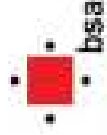
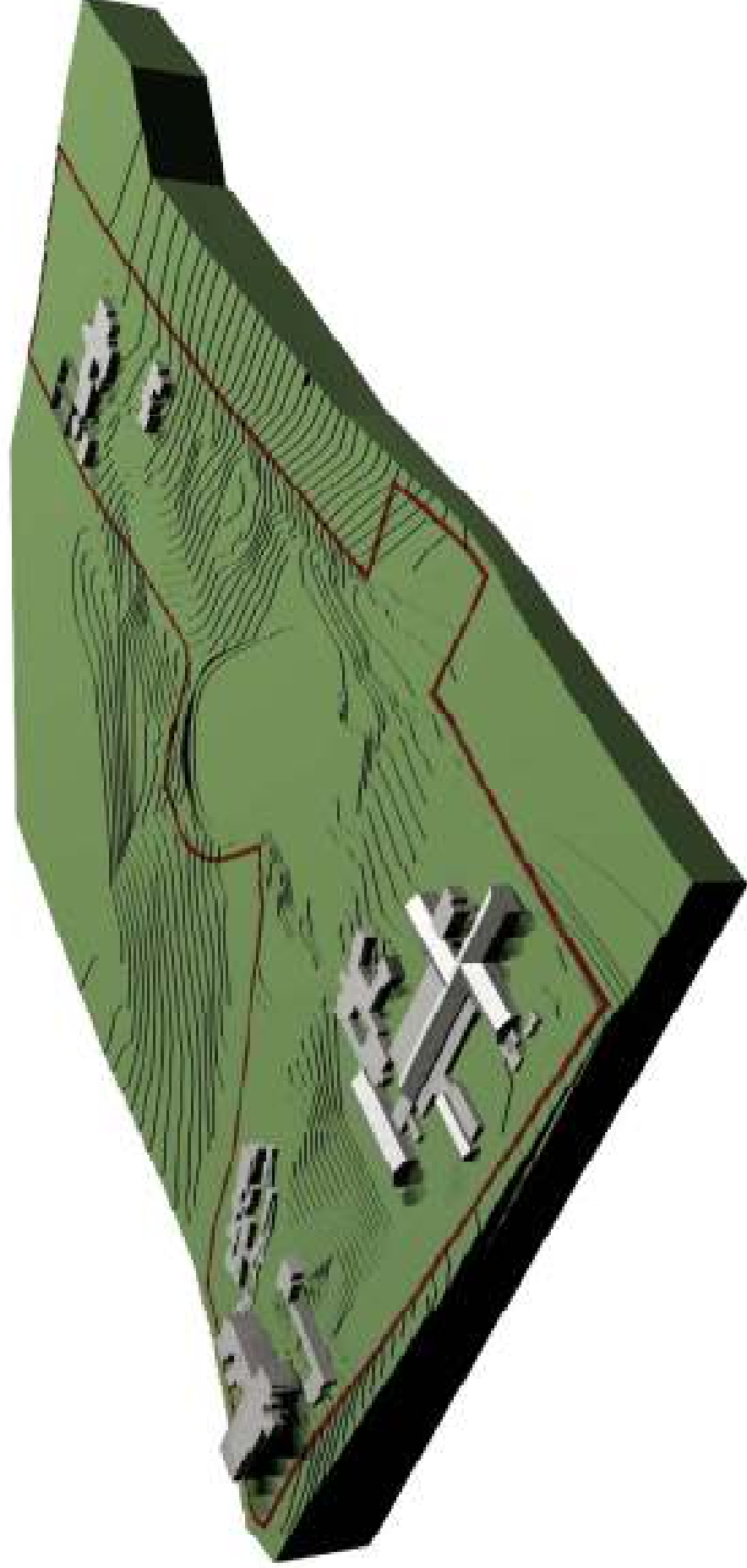
Bruce Swahwell, Urban Designer
BSA & Associates Pty Ltd

THE EXISTING SITE & ITS CHARACTERISTICS :

- **3D of Existing Site**
- **Existing Site Plan**
- **Existing Land Use Plan**
- **Terrain**
- **Hydraulics**
- **Climate**
- **Mature Trees**
- **Site Access/Egress**
- **Public Transport**
- **Site Amenity Impacts**
- **Retail/Commercial Centres**
- **Proposal Development Zones**



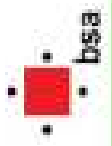
THE EXISTING SITE : 3D VIEW



THE EXISTING SITE PLAN



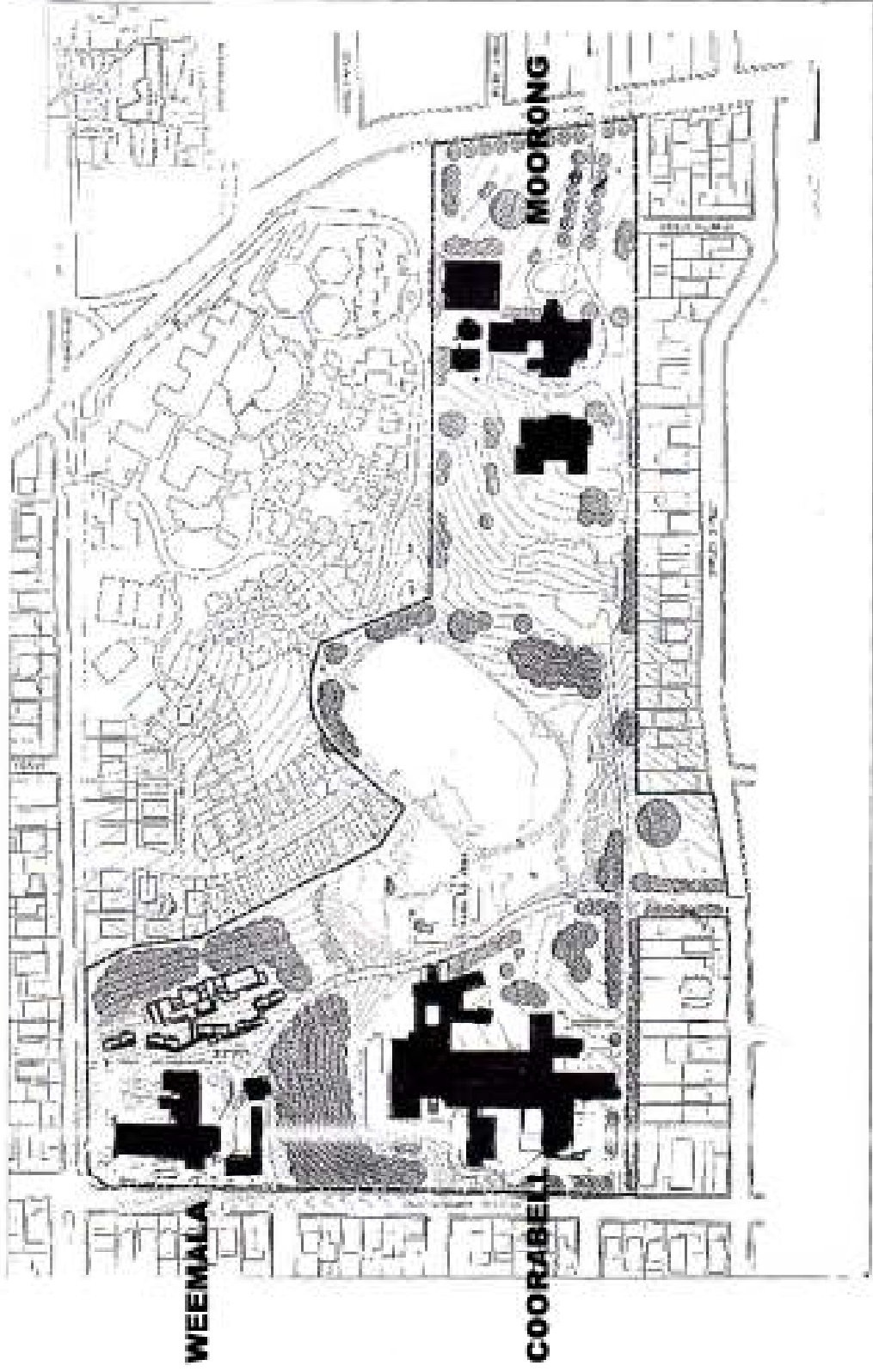
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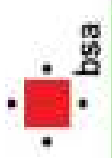
RRCS CONCEPT PLAN

bsa

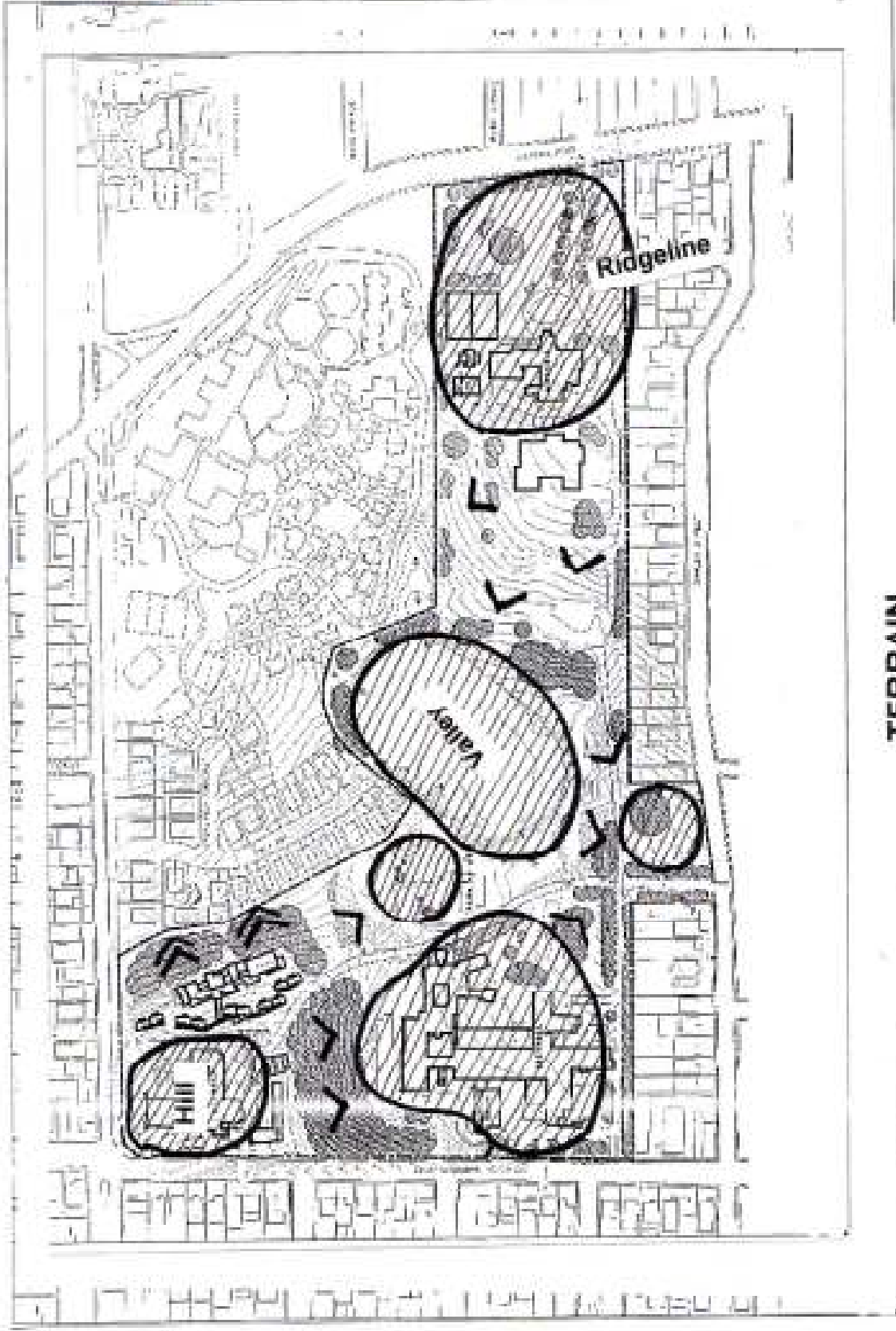
THE EXISTING SITE : LAND USE




LAND USE



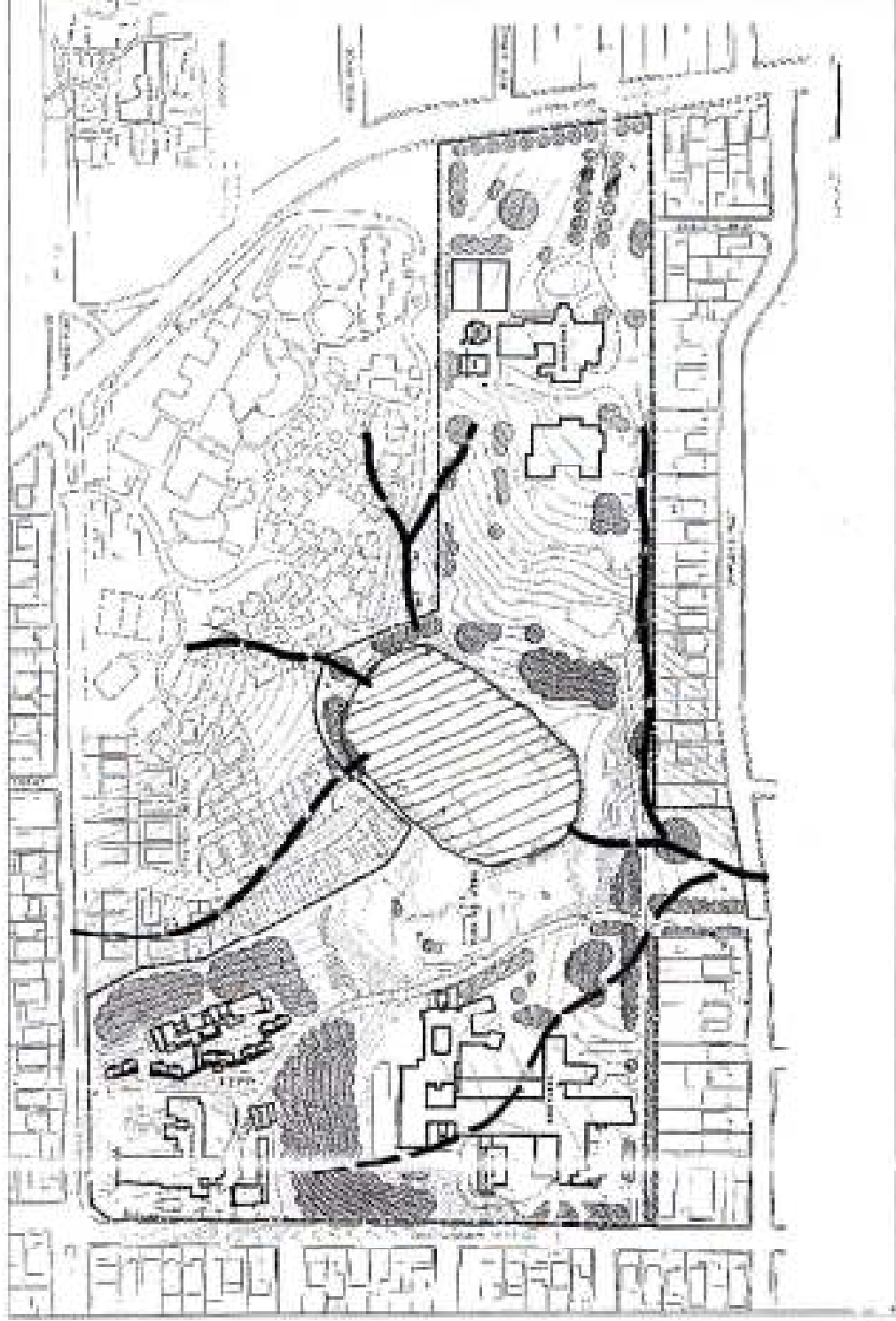
THE EXISTING SITE : TERRAIN ANALYSIS



TERRAIN

-  Level
 -  Slope
- Site is a shallow natural amphitheatre formed by ridge line, hilltop and stepped valley

THE EXISTING SITE : HYDRAULICS



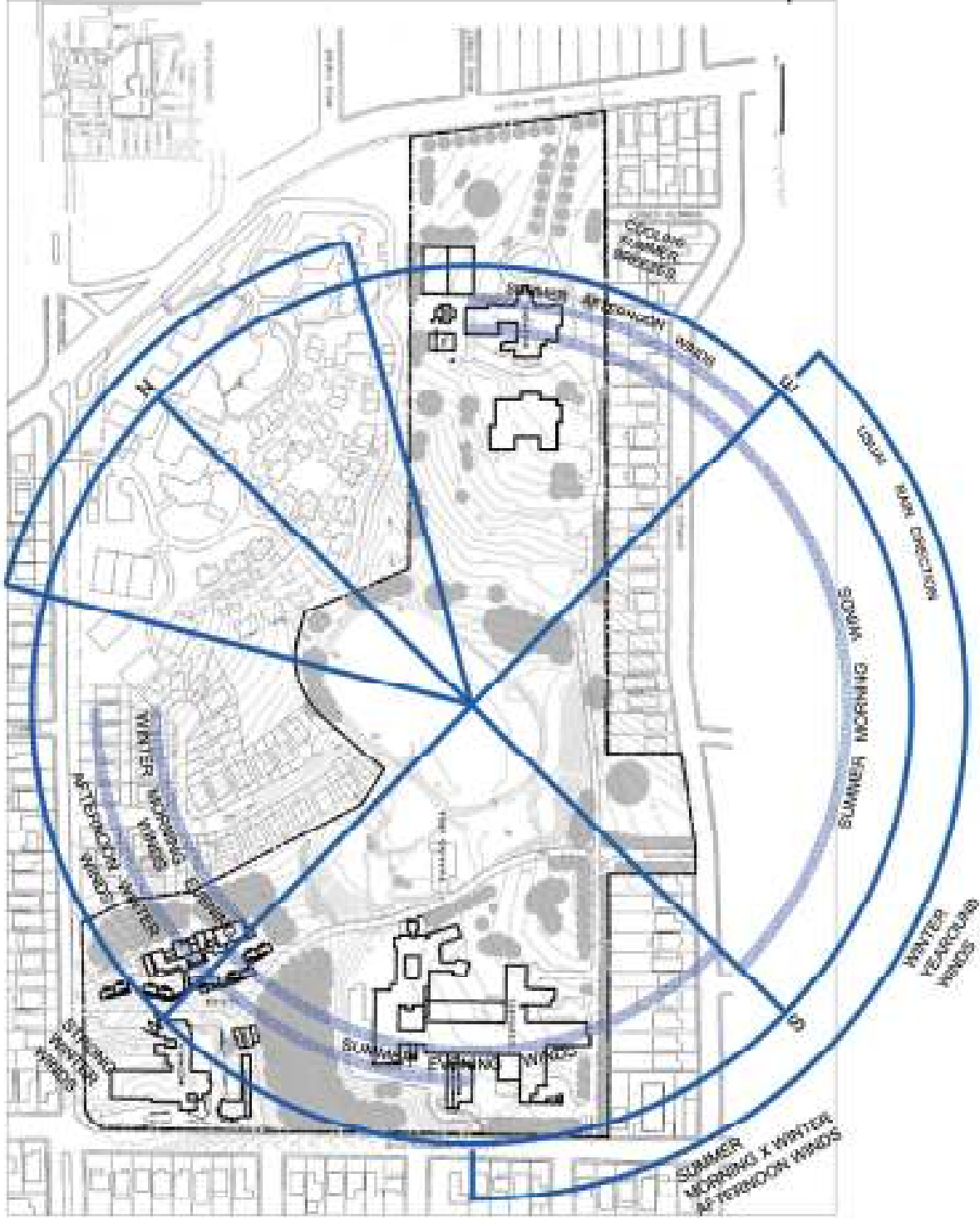
HYDRAULICS

— Drainage Swale

▨ Detention Basin

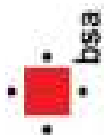
Land form and drainage pattern access
required detention basin mid level in valley

THE EXISTING SITE : CLIMATE

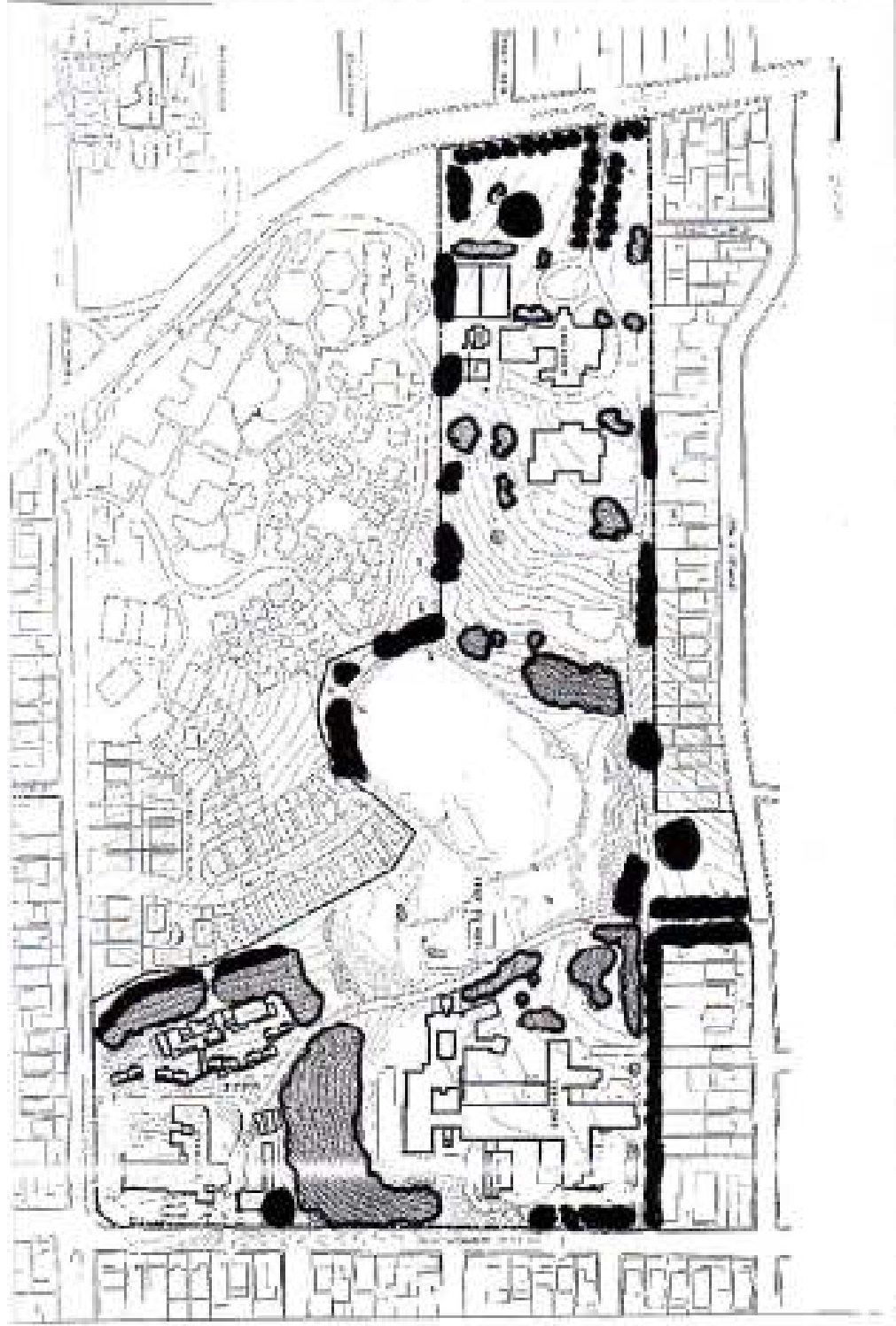


CLIMATE

RRCS CONCEPT PLAN



THE EXISTING SITE : MATURE TREES

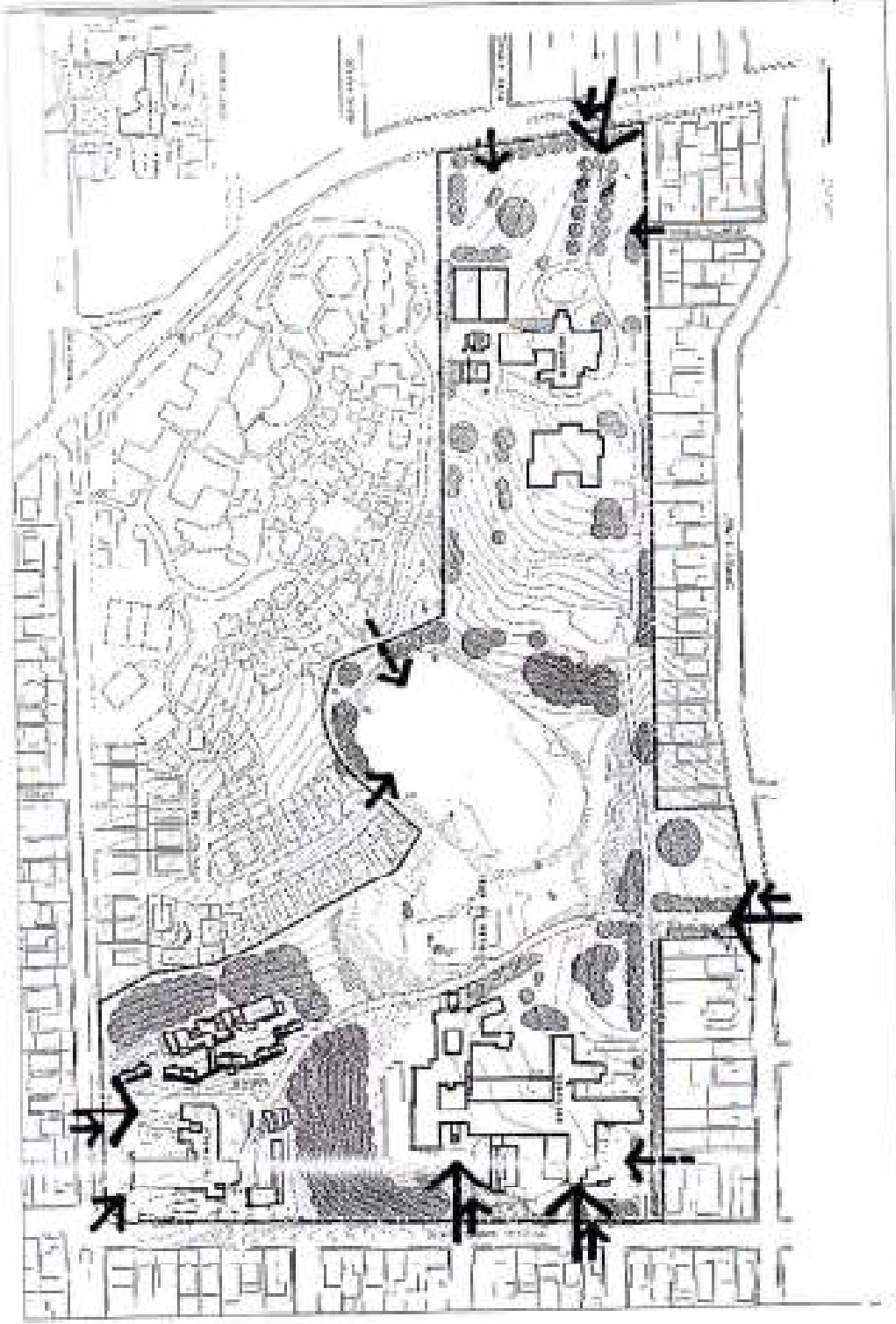


MATURE TREES

■ Retain

Existing tree canopy plotted with identified potential for retention
nb landscape architects drawings

THE EXISTING SITE : ACCESS & EGRESS

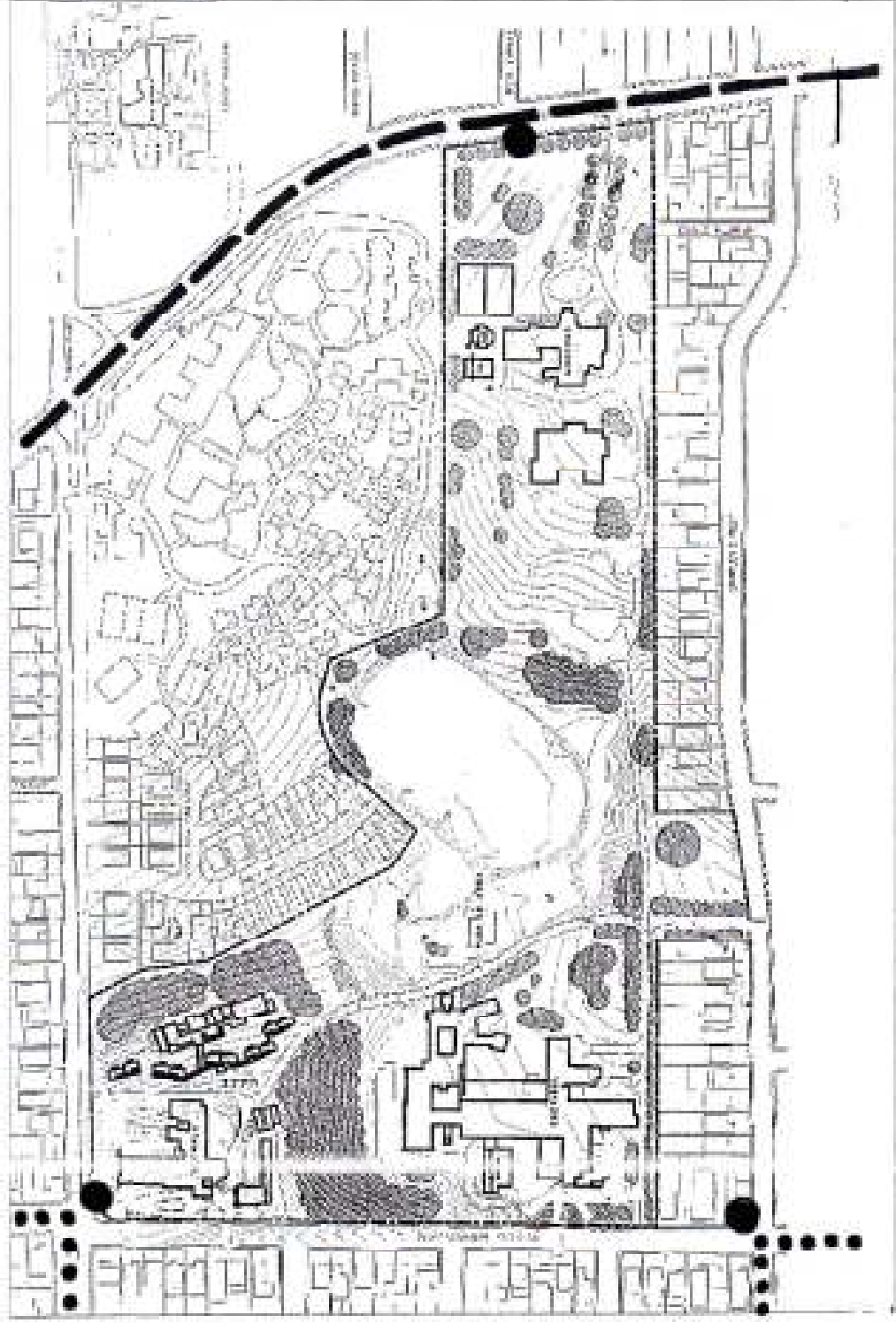


SITE ACCESS/EGRESS

- Motor Vehicle
- Pedestrian

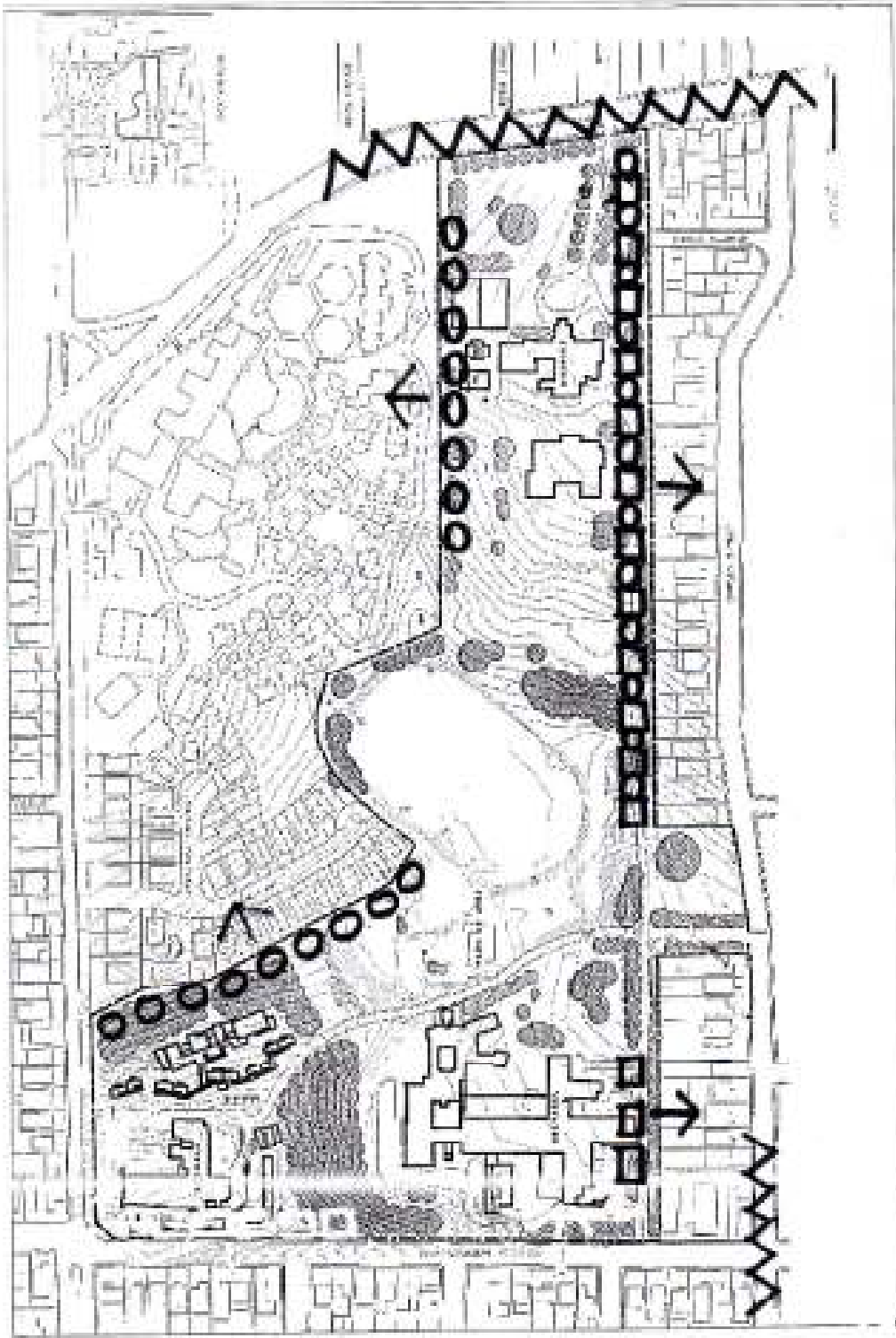
Potential Access
Proposed access as current
with detail additions

THE EXISTING SITE : PUBLIC TRANSPORT

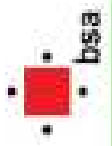


- PUBLIC (BUS) TRANSPORT
- Routes 500; 501; 518; X18; X000; 520; 512
- Routes 507; 537

THE EXISTING SITE : AMENITY IMPACTS



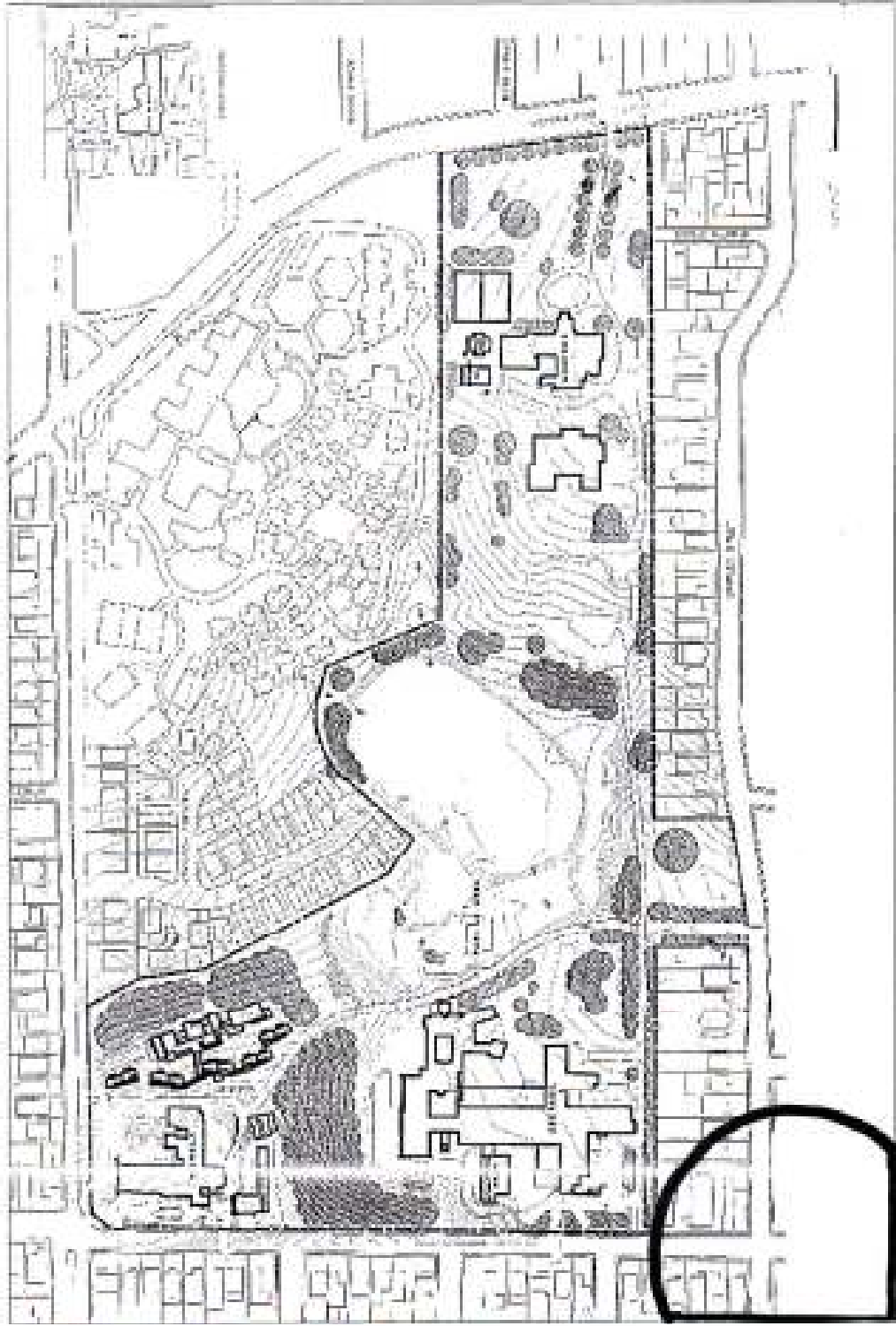
- P O T E N T I A L
SITE AMENITY IMPACTS**
- V Noise Source
 - O Overlooking
 - Overshadowing



THE EXISTING SITE : RETAIL / COMMERCIAL CENTRES

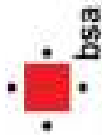


RYDE 0.8 KM



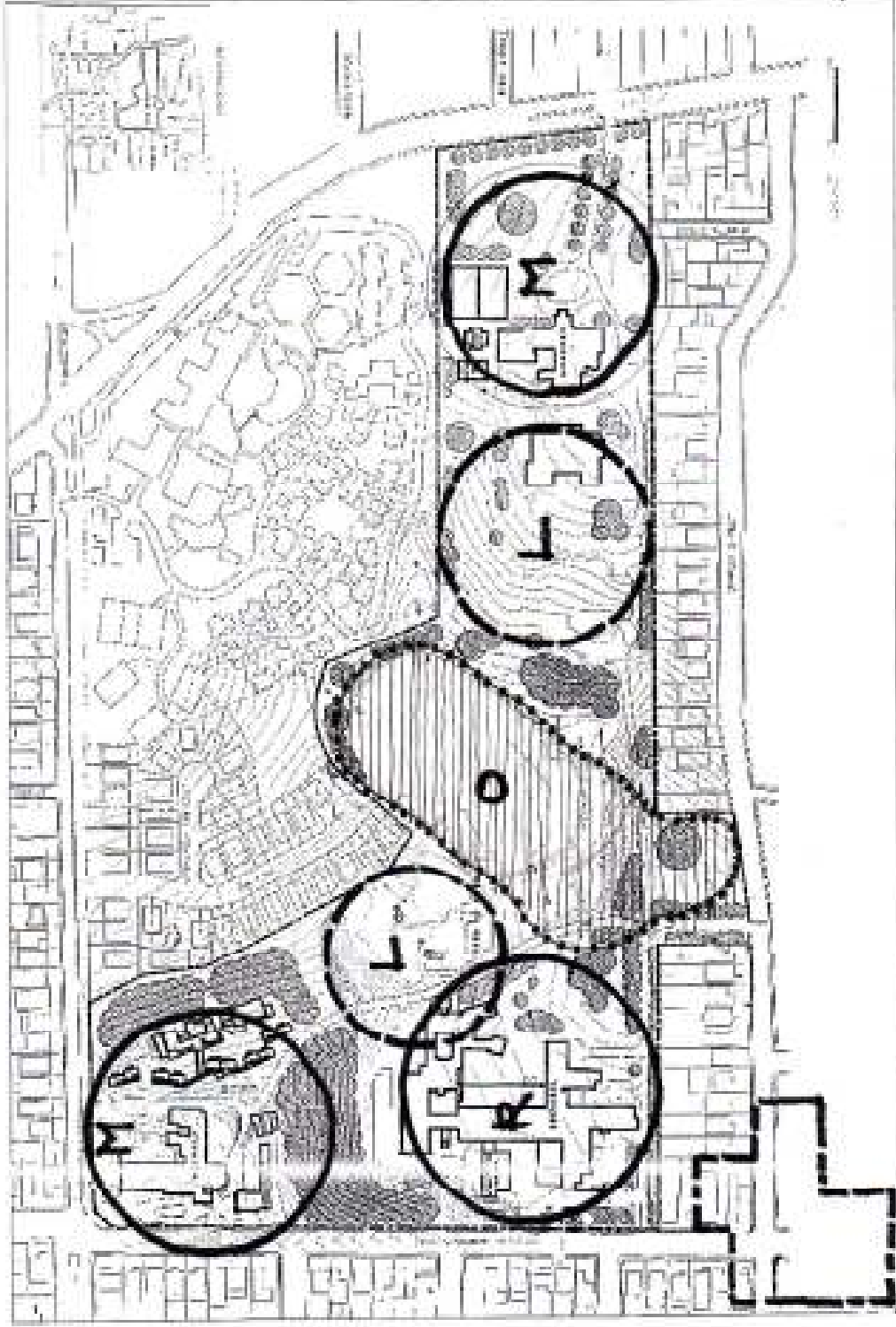
PUTNEY

RETAIL/COMMERCIAL CENTRES



RRCS CONCEPT PLAN

THE EXISTING SITE : PROPOSED DEVELOPMENT ZONES

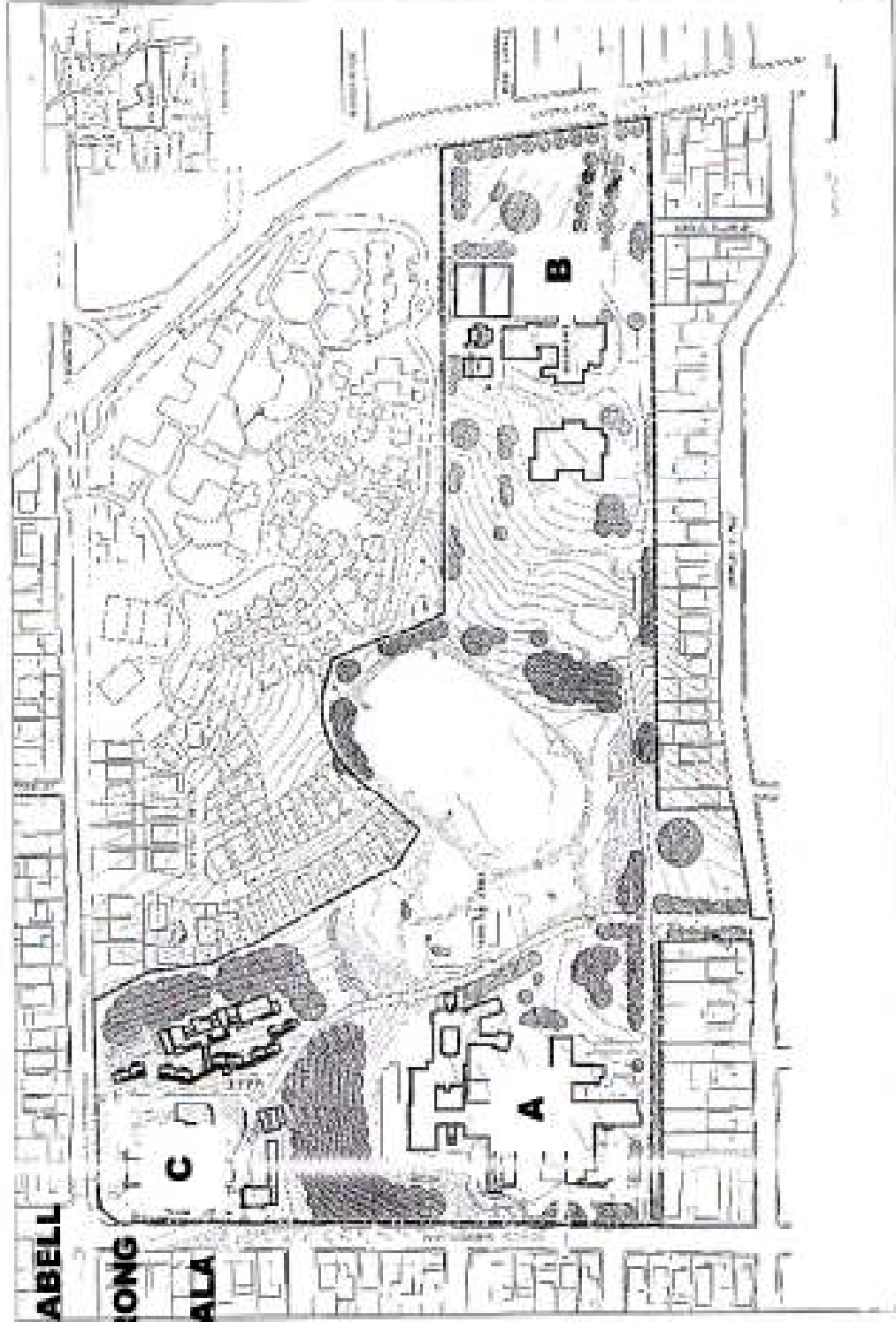


COMPOSITE (of preceding panels)

- M Medium Rise Zone
- L Low Rise Zone
- O Open Space/View/Drainage
Recreation Corridor
- R Rehabilitation Facility

- Existing Buildings & Site Features
- Site Internal & External Views

SITE VIEW ANALYSIS : EXISTING BUILDINGS & SITE FEATURES



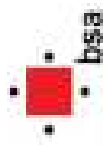
A: COORABELL

B: MOORONG

C: WEEMALA

KEY TO PHOTOS
General reference to all panels

RRCS CONCEPT PLAN



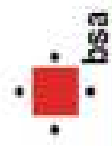
SITE / VIEW ANALYSIS: A , COORABELL



COORABELL BUILDINGS



COORABELL BUILDINGS



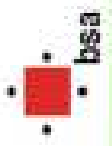
SITE / VIEW ANALYSIS: A , COORABELL



PUTNEY VILLAGE SHOPS



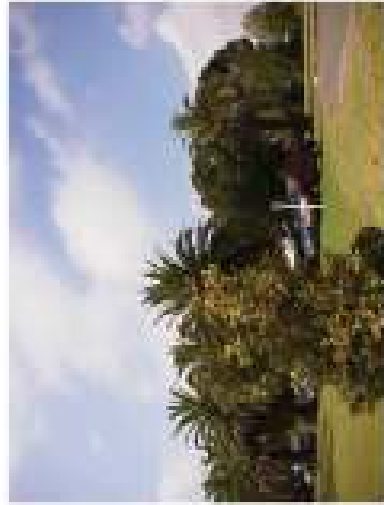
COORABELL /BRAIN INJURY UNIT



SITE / VIEW ANALYSIS: B , MOORONG



MOORONG & SURROUNDINGS



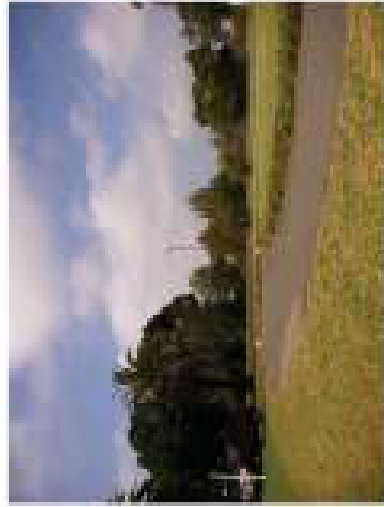
MOORONG & SURROUNDINGS



SITE / VIEW ANALYSIS: B , MOORONG



MOORONG & SURROUNDINGS



MOORONG & SURROUNDINGS



SITE / VIEW ANALYSIS: C , WEEMALA



WEEMALA



WEEMALA



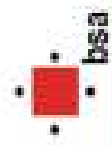
SITE / VIEW ANALYSIS: C , WEEMALA



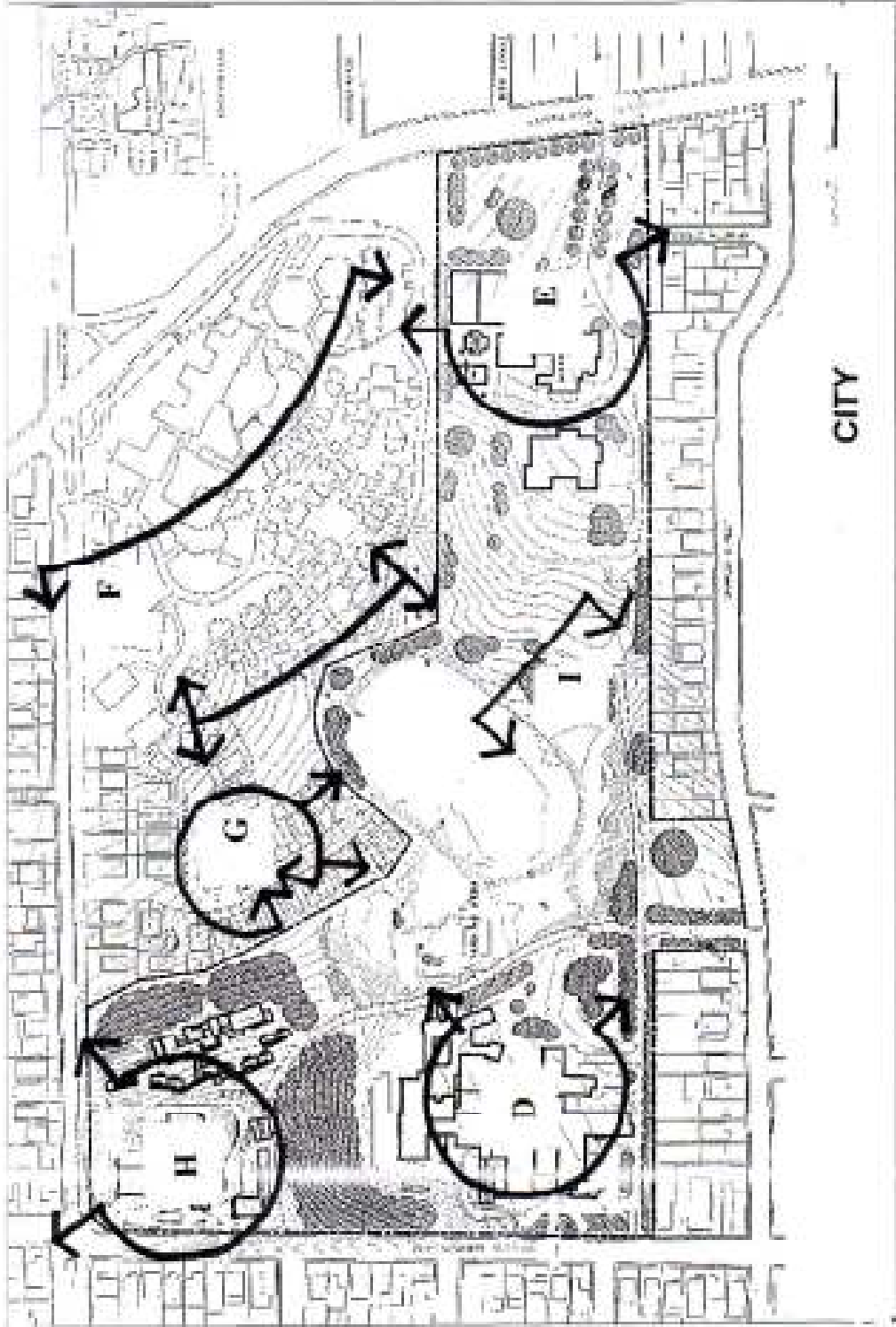
WEEMALA & SURROUNDS



WEEMALA & SURROUNDS



SITE VIEW ANALYSIS : EXTERNAL VIEWS



- D: Coorabell
- E: Moorrong
- F: Dalton Gardens Village
- G: Linley Way
- H: Weemala
- I : Detention Basin

RIVER

CITY

EXTERNAL VIEWS

Hill and ridgetop locations afford panoramic views to river and city CBD – lower valley views internalised within site

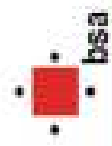
SITE / DEVELOPMENT ANALYSIS: D , COORABELL



FROM COORABELL



FROM COORABELL



SITE / DEVELOPMENT ANALYSIS: D , COORABELL



FROM COORABELL



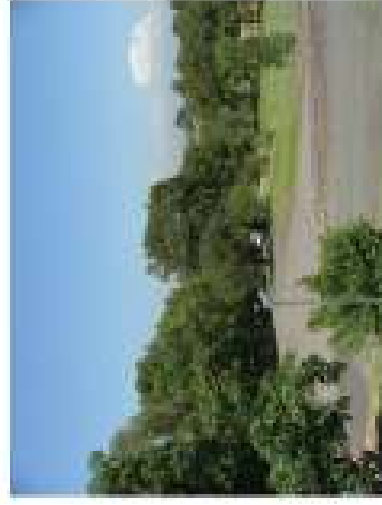
FROM COORABELL



SITE / DEVELOPMENT ANALYSIS: E , MOORONG



FROM MOORONG



FROM MOORONG



SITE / DEVELOPMENT ANALYSIS: F, LINLEY WAY



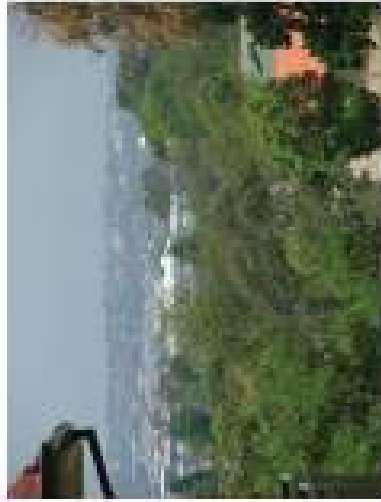
TO LINLEY WAY



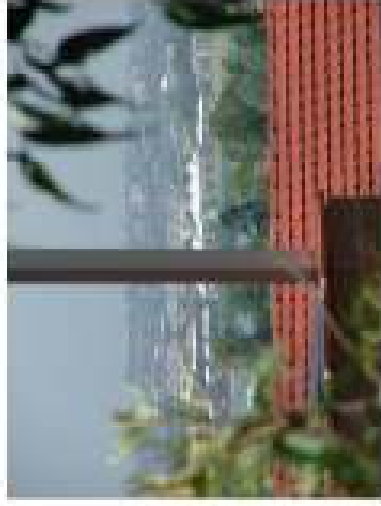
TO LINLEY WAY



SITE / DEVELOPMENT ANALYSIS: G, LINLEY WAY ; H , WEEMALA



FROM WEEMALA



MOCRONG

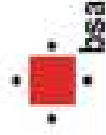


LINLEY WAY

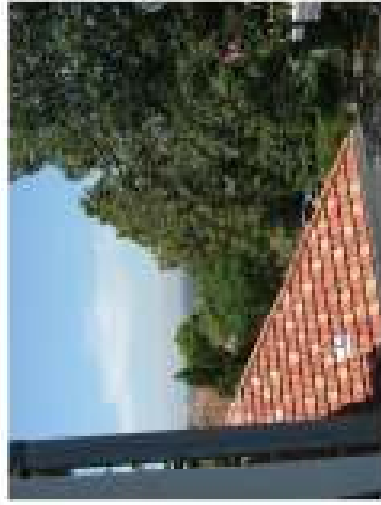


DALTON GARDENS
VILLAGE

FROM LINLEY WAY, OVER DETENTION BASIN



SITE / DEVELOPMENT ANALYSIS: H, WEEMALA



FROM WEEMALA



FROM WEEMALA



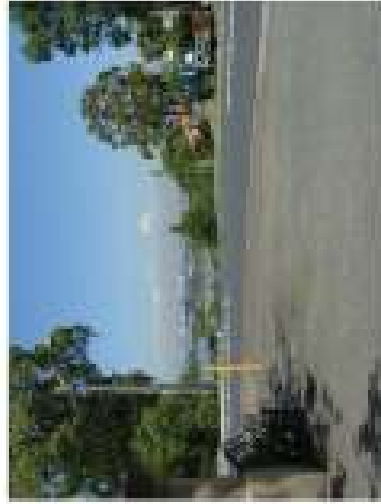
SITE / DEVELOPMENT ANALYSIS: H, WEEMALA



FROM WEEMALA



FROM WEEMALA

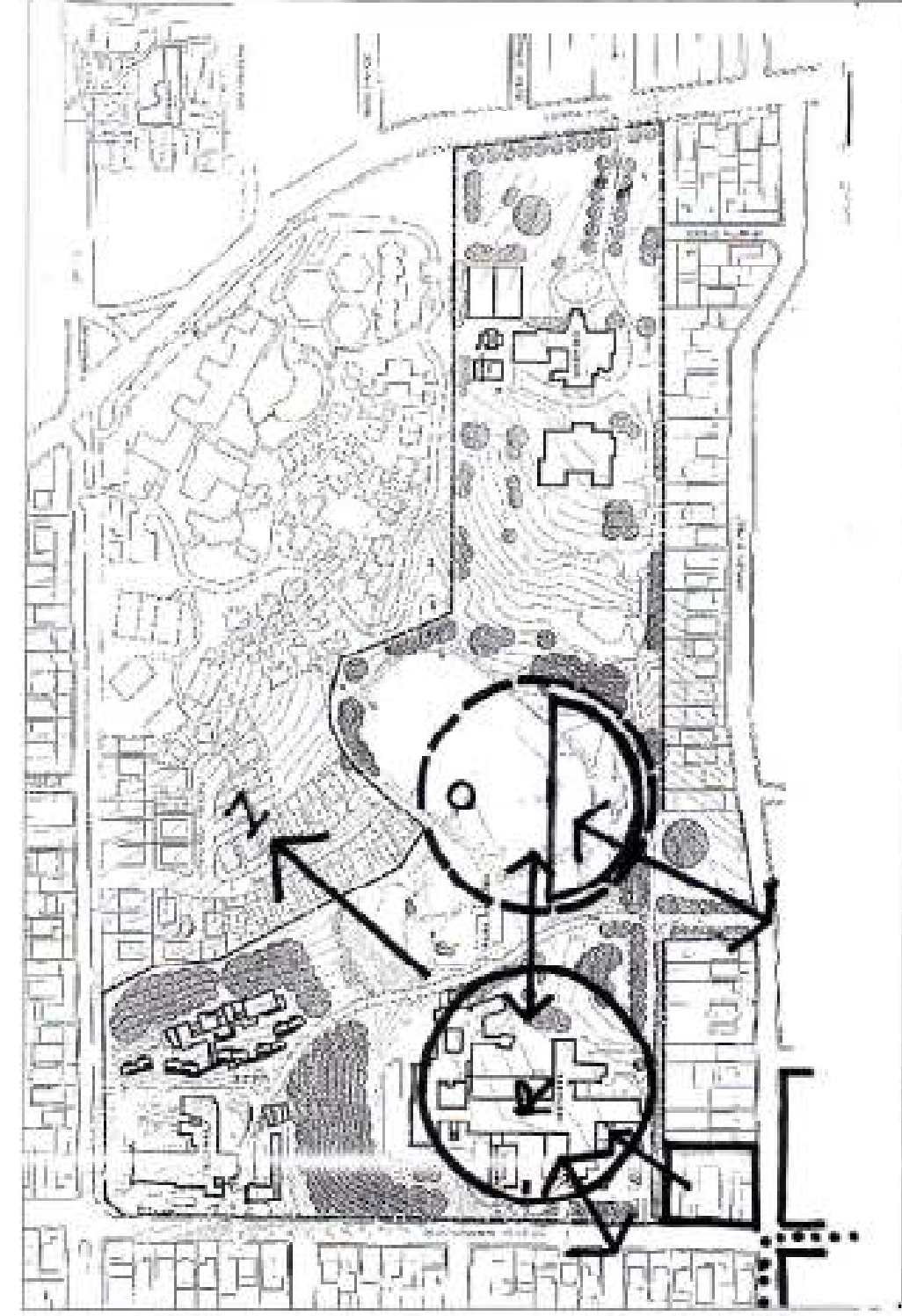


SITE DEVELOPMENT PLAN PRINCIPLES

- **RRCS Facility Location**
- **Low-Rise Zones - Location**
- **Medium-Rise Zones - Location**
- **Transition Zones - Location**
- **Landscape Structure**
- **Built Form 1**
- **Built Form 2**
- **Built Form 3**
- **Built Form 4**
- **Composite Site Plan**



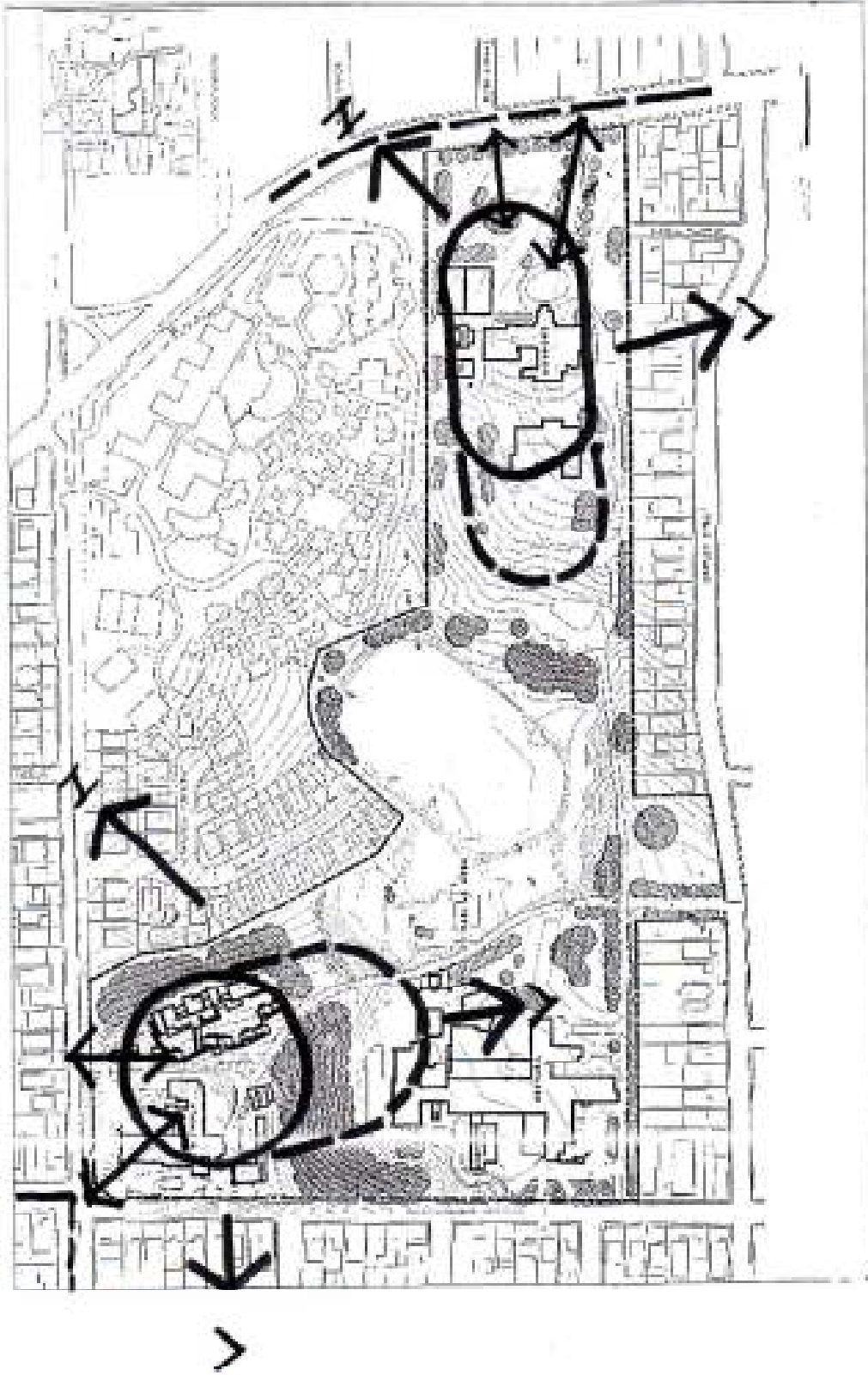
SITE DEVELOPMENT PLAN PRINCIPLES : RRCS FACILITY



REHABILITATION FACILITY – LOCATION

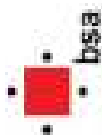
- Benefits:
- Existing familiar location
 - Level site
 - Retail adjacent
 - Public transport adjacent
 - Northern aspect
 - Level open area with facilities beneath adjacent & dedicated entry

SITE DEVELOPMENT PLAN PRINCIPLES : MEDIUM - RISE ZONES

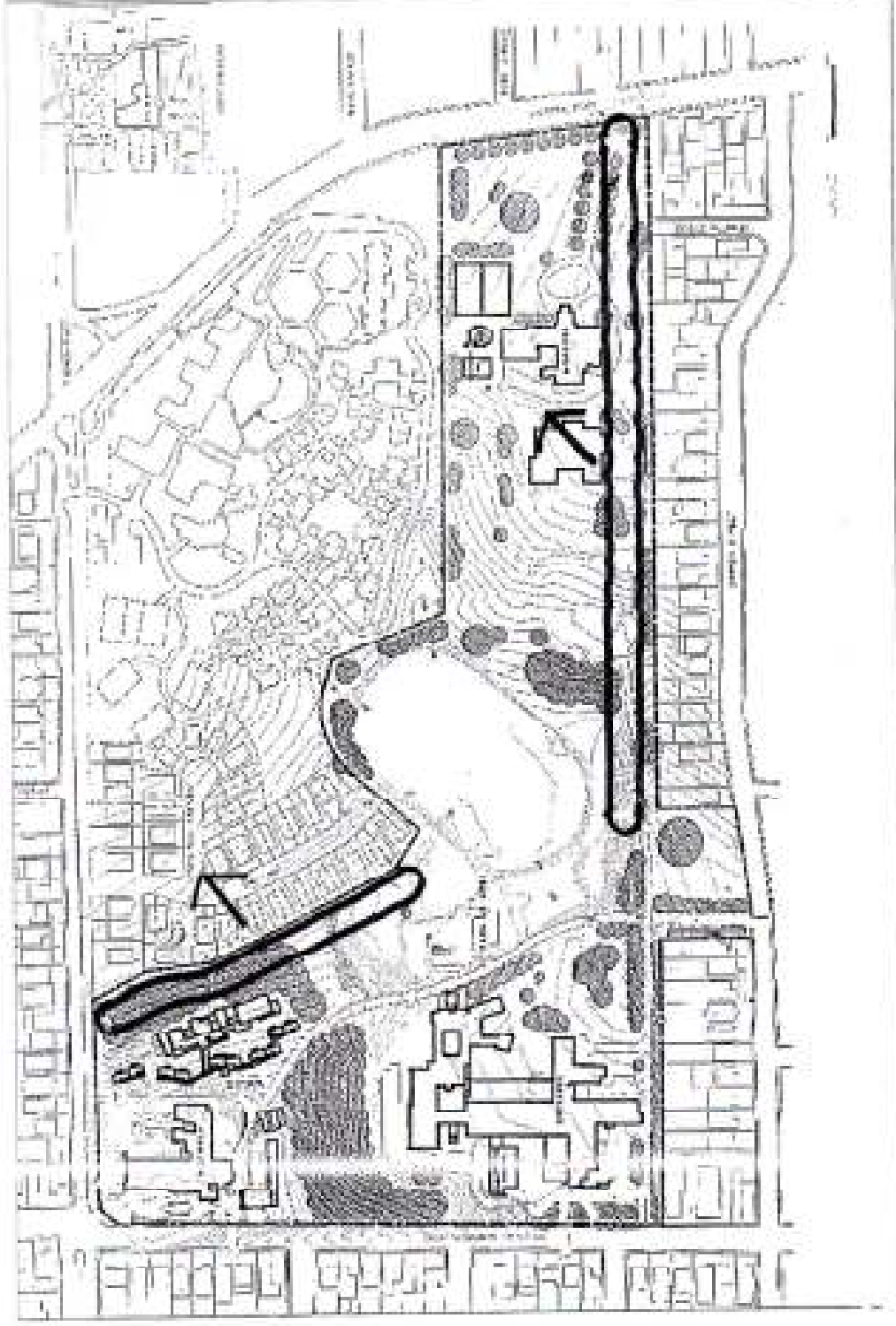


MEDIUM RISE ZONES – LOCATION

- Select ridge/hill level zones as centres
- cascade to slopes adjacent
- Each receives individual identity, access, public transport and form



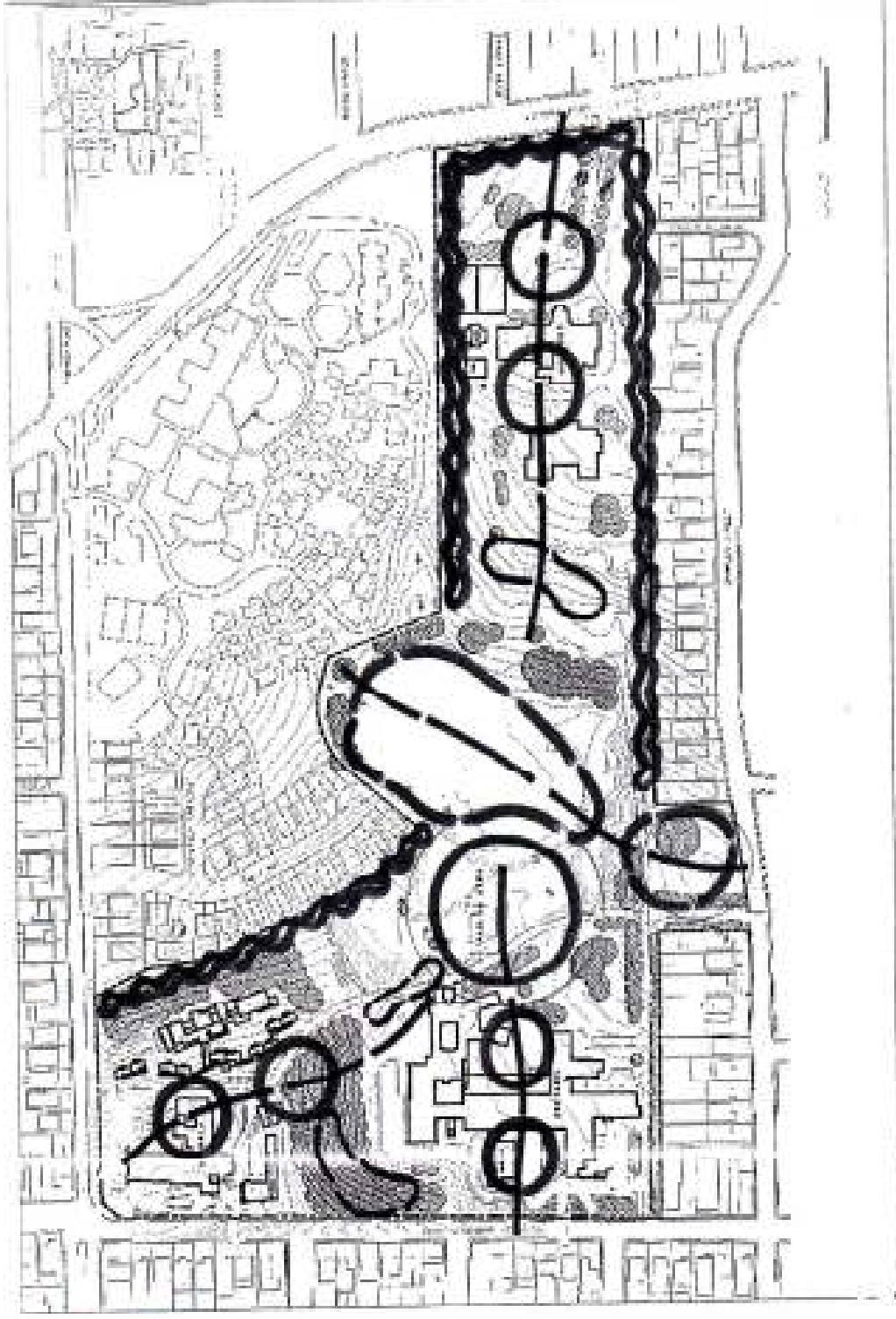
SITE DEVELOPMENT PLAN PRINCIPLES : TRANSITION ZONES



TRANSITION ZONES - LOCATION

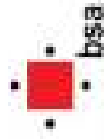
Firm controlled "buffer" at contentious boundaries - treatment reduces negative impact with 2 storey separate residences
Append to nearest medium rise

SITE DEVELOPMENT PLAN PRINCIPLES : LANDSCAPE STRUCTURE

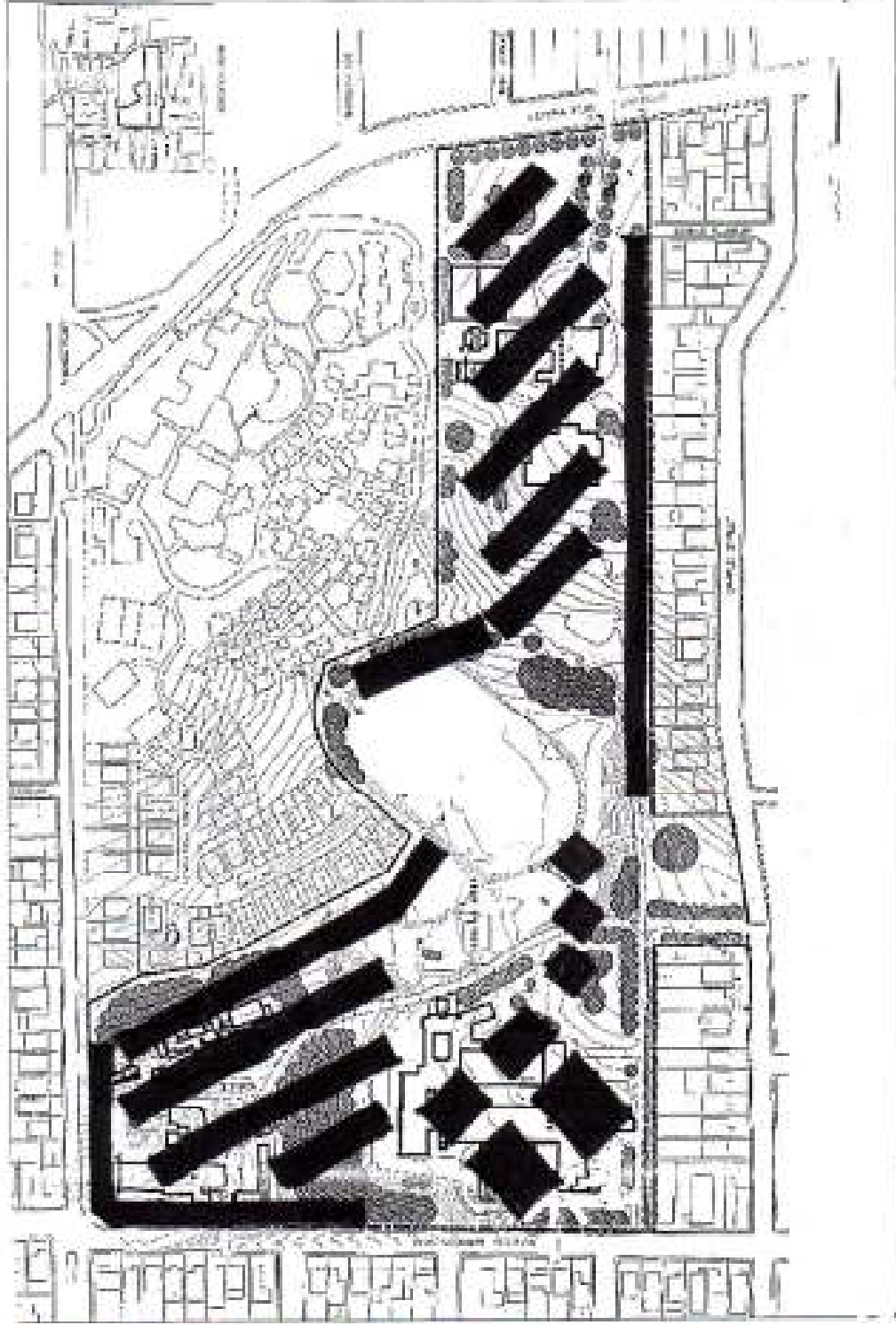


LANDSCAPING

A range and sequence of active/passive, hard/soft, formal/informal provisions are planned throughout the site to complement built form



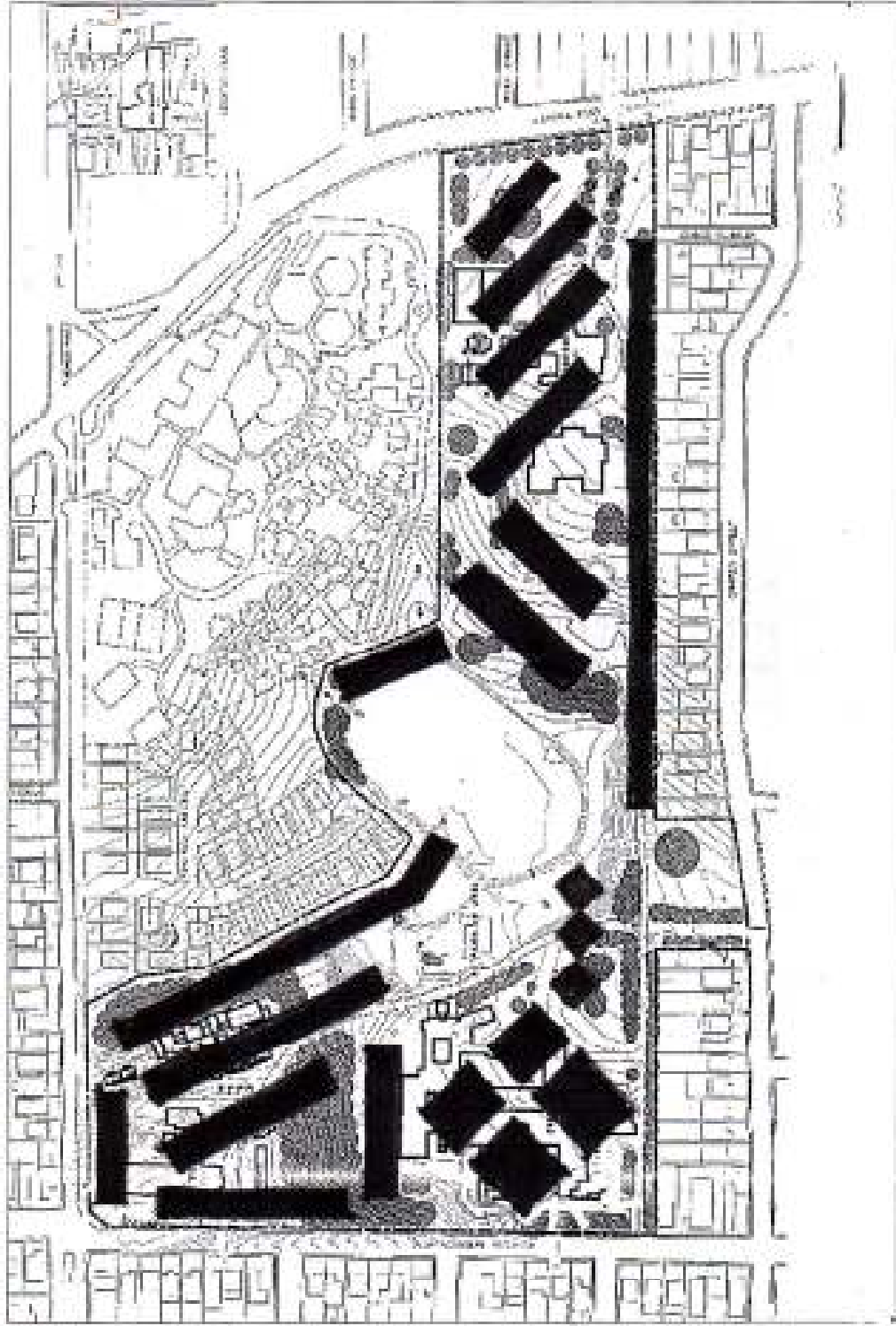
SITE DEVELOPMENT PLAN PRINCIPLES : BUILT FORM 1



BUILT FORM - 1

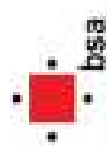
Gen - North aspect/river view alternatives
street edge & boundary transition

SITE DEVELOPMENT PLAN PRINCIPLES : BUILT FORM 2



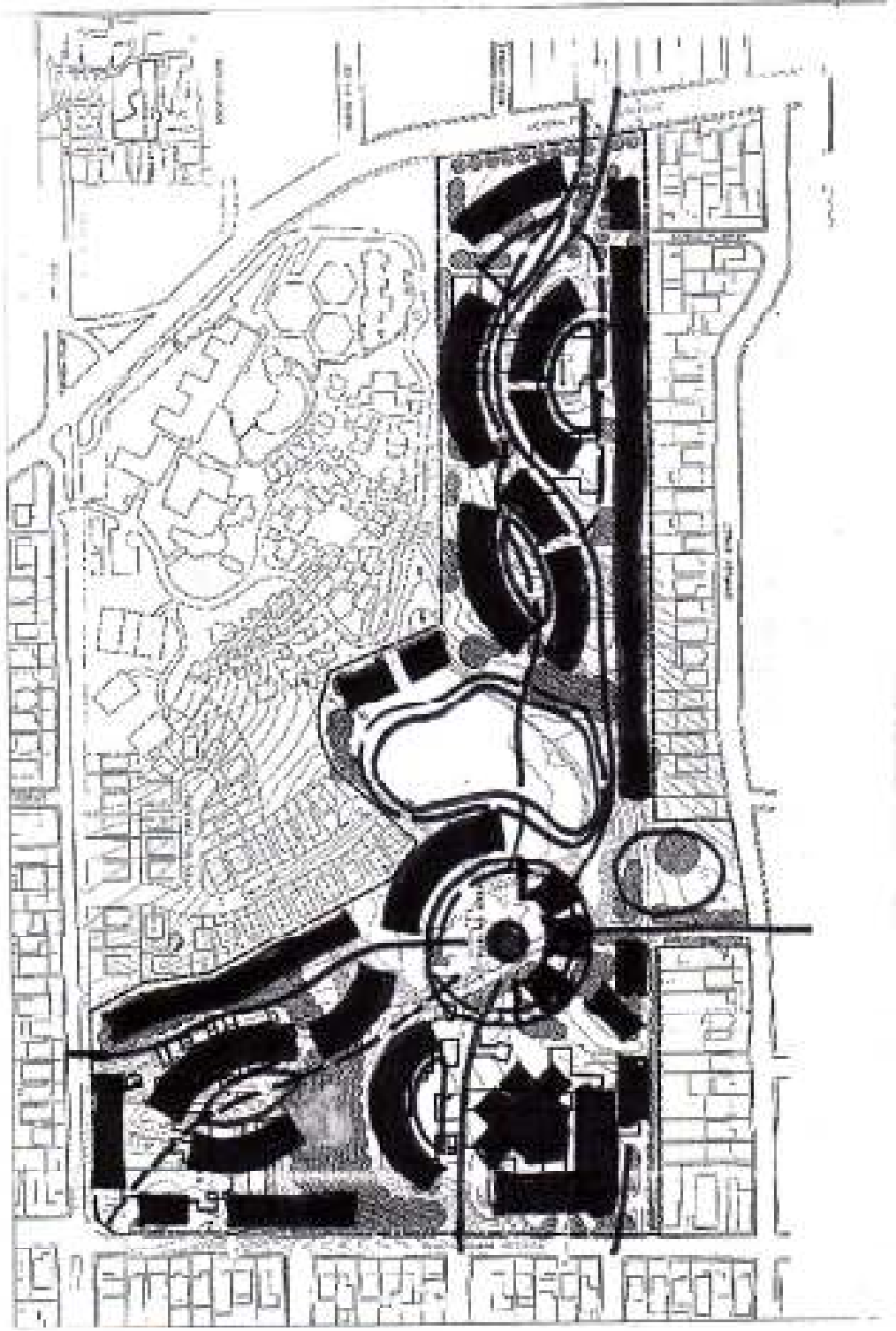
BUILT FORM - 2

Lower slopes - Internal view/city view alternatives



RRCS CONCEPT PLAN

SITE DEVELOPMENT PLAN PRINCIPLES : BUILT FORM 4



BUILT FORM - 4

Introduce access, breaks,
court enclosure,
paths, roads

SITE DEVELOPMENT PLAN PRINCIPLES : COMPOSITE SITE PLAN



COMPOSITE SITE PLAN

- Rehabilitation Facility
- Medium Rise Modules
- Low Rise Modules
- Transition Modules
- Landscaping
- Paths and Roads.

RRCS CONCEPT PLAN

