

THE URBAN DESIGN FRAMEWORK REALISED

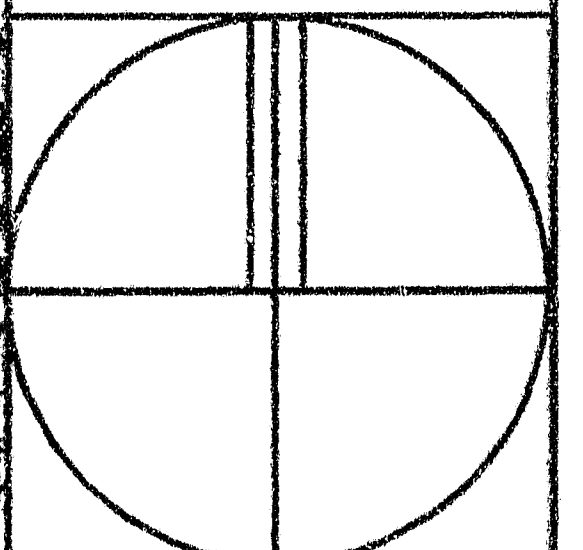
1. Ellis Park Precinct "Central Park", with re-established Jukskei River source in the form of a lake.
2. Derby Road Activity Node (also serving community function, including clinic, post-office, public telephone centre, public Laundromats, bathhouse; all this in anticipation of higher density 'social' residential environments)
3. Derby Road Mixed-Use Activity Strip (business and commercial, based on existing activities).
4. Informal Trade Market (in historic buildings) and new ones added to accommodate all related facilities (storage ablutions etc.)
5. New School to serve increased population / community.
- 5a. School hall, doubling up as community hall / facility
- 5b. School sportsfields.
6. New higher density residential in terms of discussed typologies.
7. Boarding Houses (as per typologies)
8. Restored Jukskei River, open and flowing through parkland, integrating the site into the overall open space system.
9. New Railway Station with informal trading area
10. Springfield Terrace type residential development
11. Edge residential similar in principle to Byker
12. Standard Bank Arena & consolidated tennis area
13. Swimming Pool "Square", with surface & underground parking to serve facilities, also creche, restaurant etc.
14. Upgraded Ellis Park swimming pool.
15. Redeveloped precinct to include home-workshop type housing, principles of edge development.
16. Ellis Park Rugby Stadium - landmark.
17. Redeveloped Ellis Park station into trading and transportation node (formalised informal trade etc.)
18. Station retail node, small business development corporation facilities, wholesale & informal trade.
19. Opened up pedestrian boulevard through technical college, integrating it with its surrounds.
20. New Sportsworld (sport academy) development.
21. New parking, retail and commercial.
22. Revitalised retail / business strip, with infill and clip-on development defining & engaging public space.
23. Sport Museum / Sporthall of fame.
24. New Offices development opportunity.
25. New Parking garage.
26. Pedestrian Avenue / Boulevard structuring element.
27. Pedestrian bridge crossing the road.
28. New higher density medium rise residential in 'woonerf' type setting.
29. Mixed-use activity node, including structured parking.
30. Upgrading of athletes track into local stadium for use by educational institutions & local / community sport bodies.
31. Open space & path link with ridge open space system.
32. Edge higher density medium rise housing - similar to Byker
33. Homeworkshop development as discussed in typologies.
34. Celebrated entrances into athletics stadium.
35. Athletics Stadium.
36. Path - accommodating both pedestrians & public transport

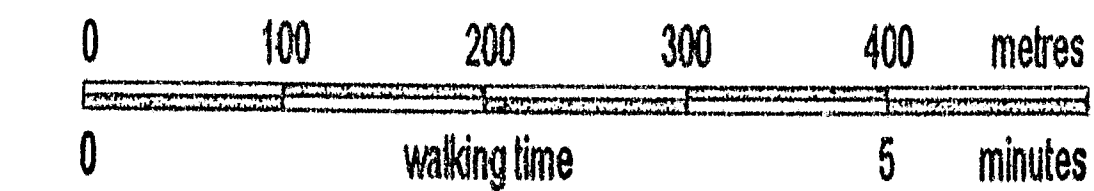
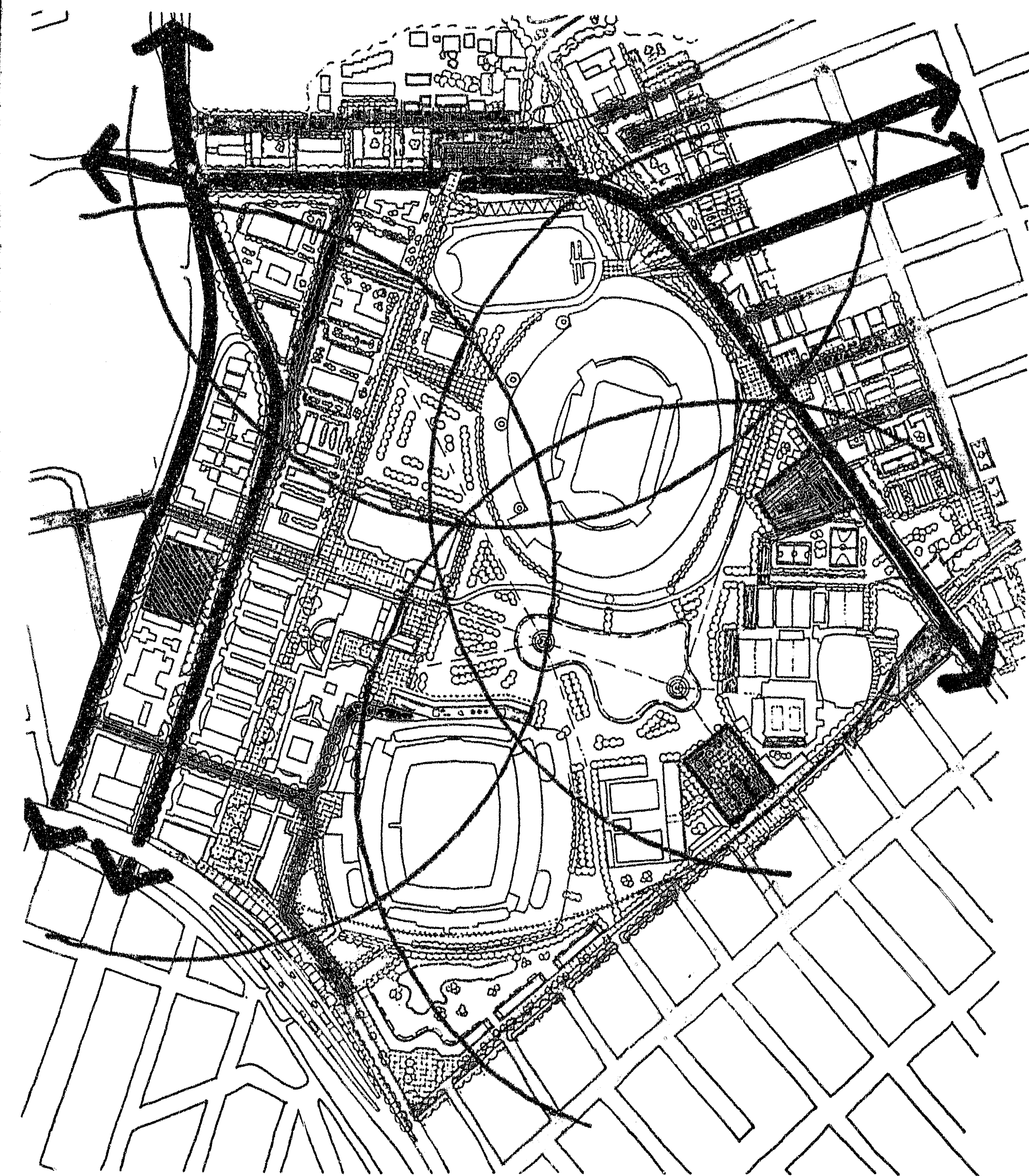


Decision Stage - Spatial Framework

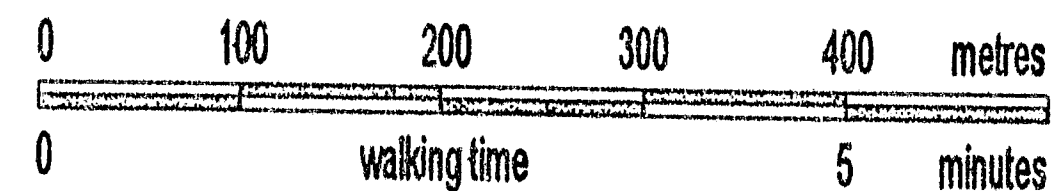
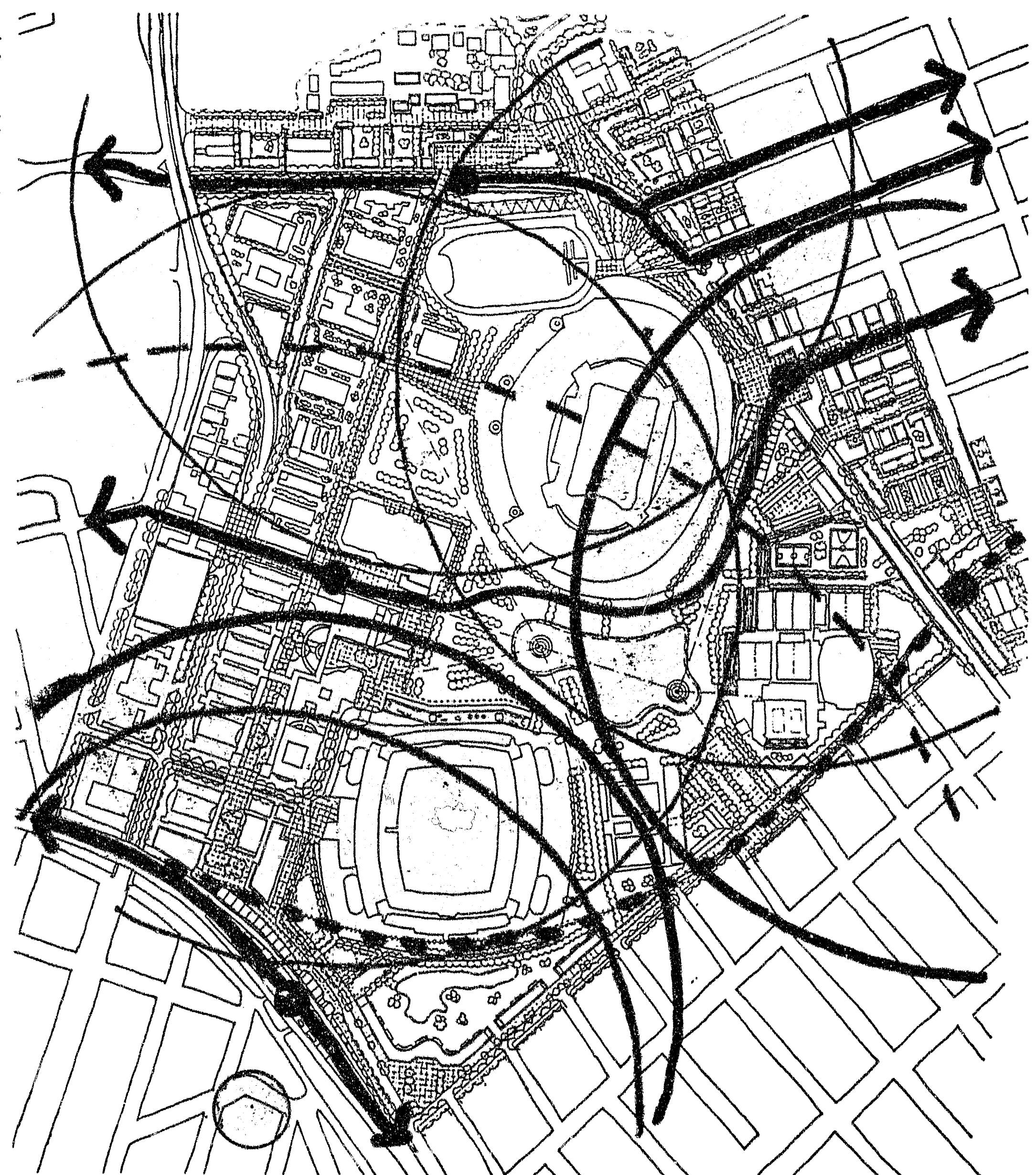
THE URBAN DESIGN FRAMEWORK REALISED

ELLIS PARK URBAN DESIGN FRAMEWORK

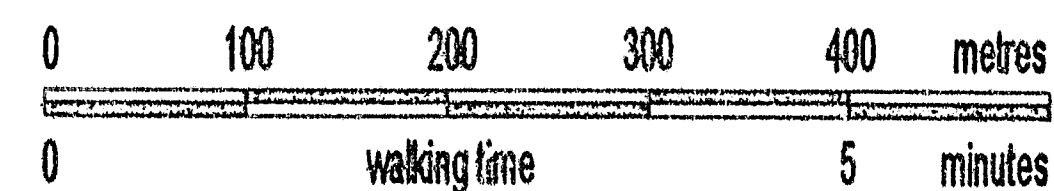
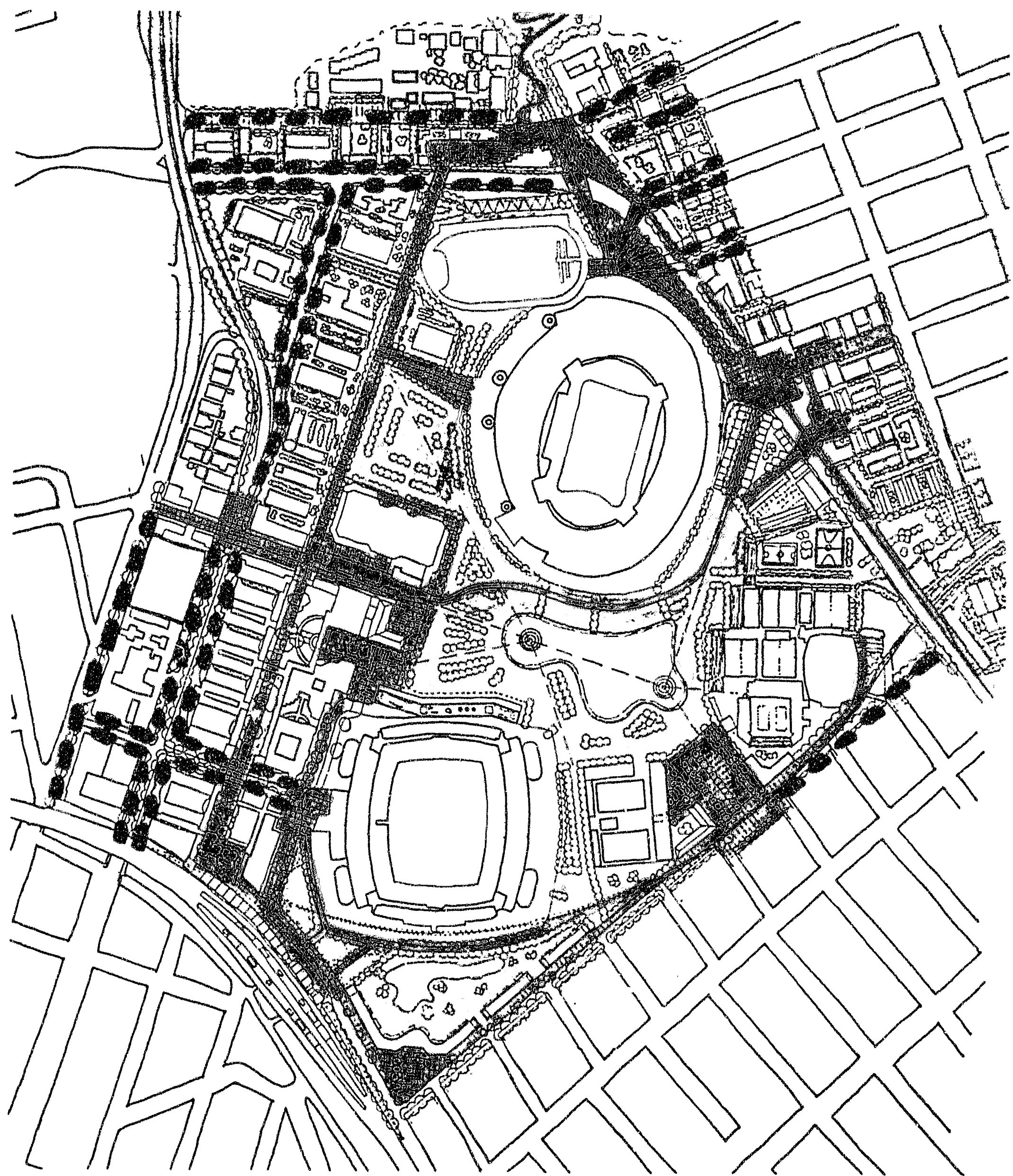




- VEHICULAR MOVEMENT**
- MAIN ROADS
 - SECONDARY ROADS
 - STRUCTURED PARKING BELOW GROUND (with retail / mixed use on ground level)
 - STRUCTURED PARKING ABOVE GROUND (with retail / commercial use on ground level)
 - PARKING GARAGE RANGE: 400m / 5min walk
 - PROPOSED BRIDGE



- PUBLIC TRANSPORT**
- BUS ROUTE
 - BUS STOPS
 - BUS STOP RANGE: 400m / 5min. walk
 - EXISTING RAIL ROUTE
 - PROPOSED RAIL ROUTE
 - RAIL STATION
 - RAIL STATION RANGE: 400m / 5min. walk
 - TAXI / BUS STATION
 - TAXI / BUS STATION RANGE: 400m / 5min. walk
 - TAXI / BUS RANGE: 800m / 10min. walk

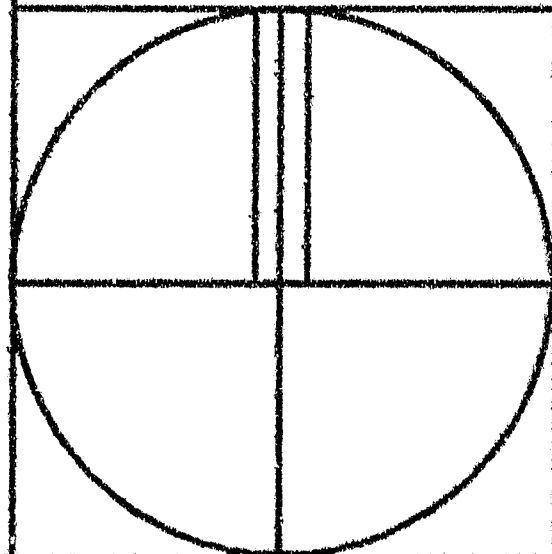


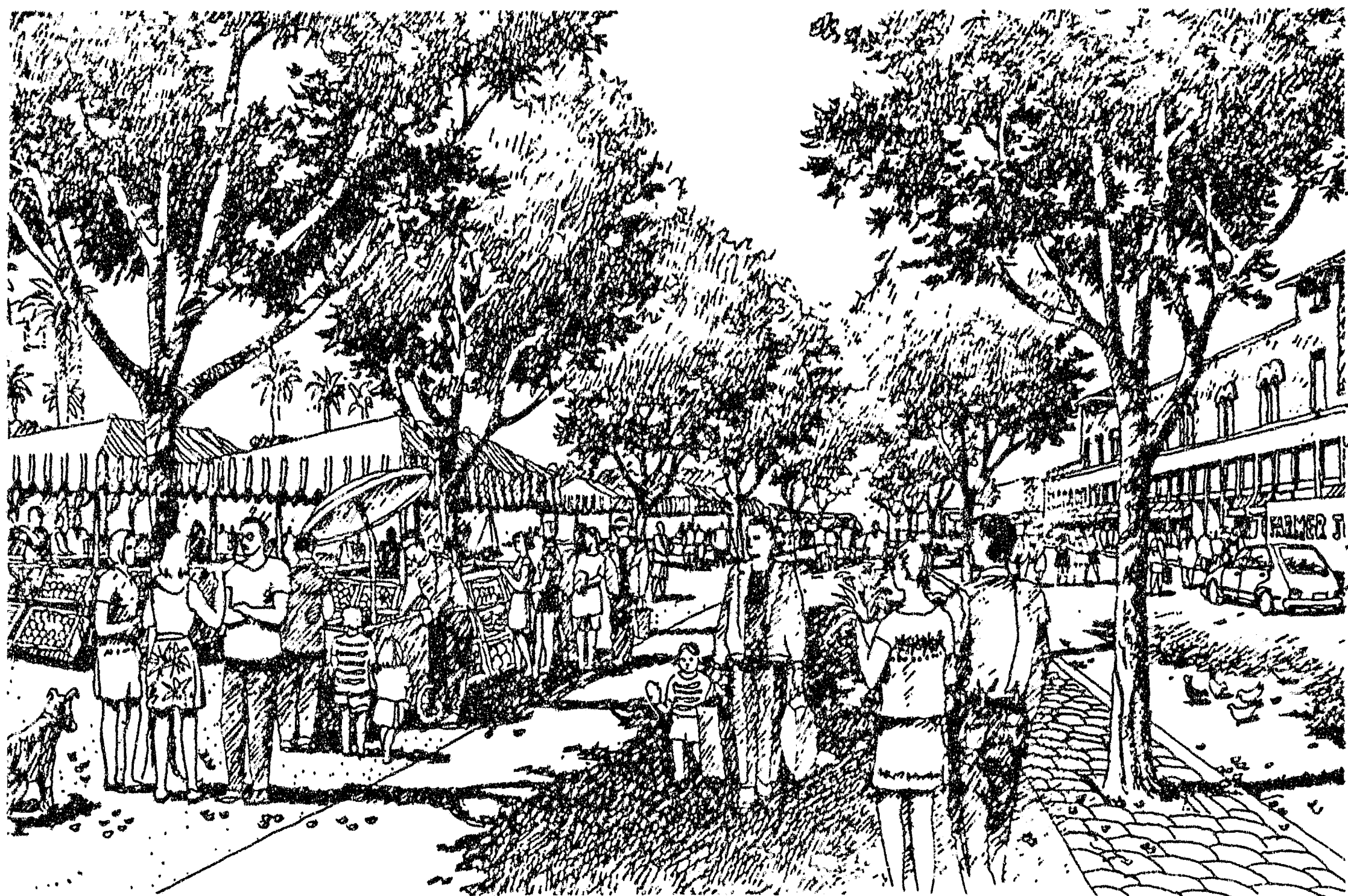
- PEDESTRIAN MOVEMENT / ACCESSIBILITY**
- PRIMARY PEDESTRIAN MOVEMENT
 - PARK: PERMEABLE PEDESTRIAN MOVEMENT
 - SECONDARY PEDESTRIAN MOVEMENT

Decision Stage - Spatial Framework

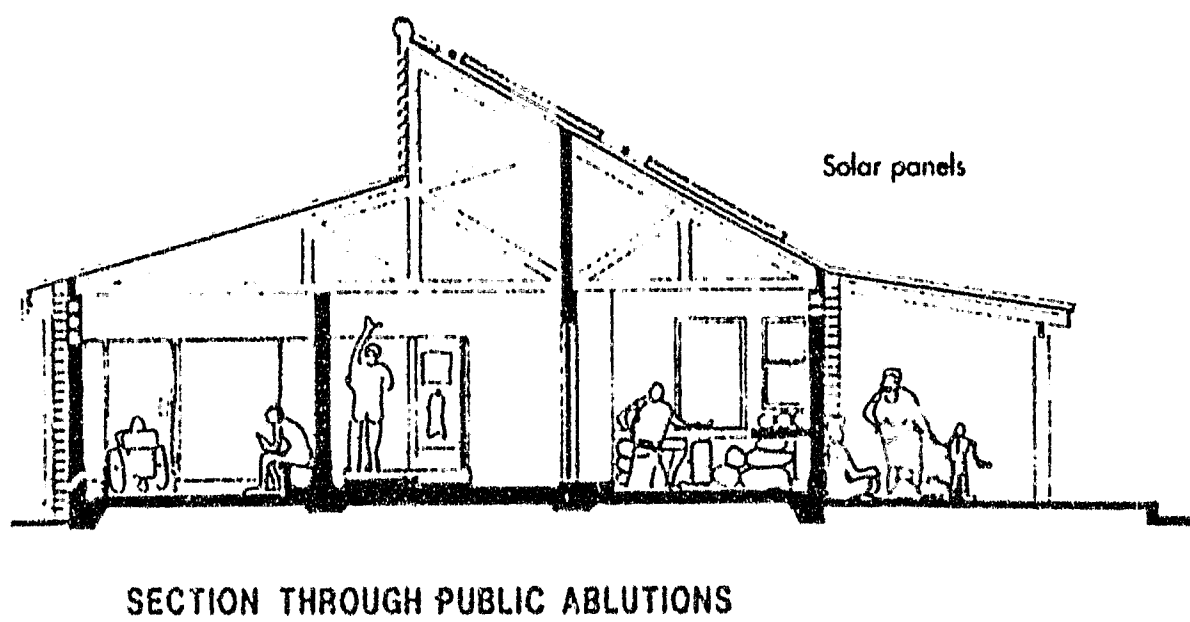
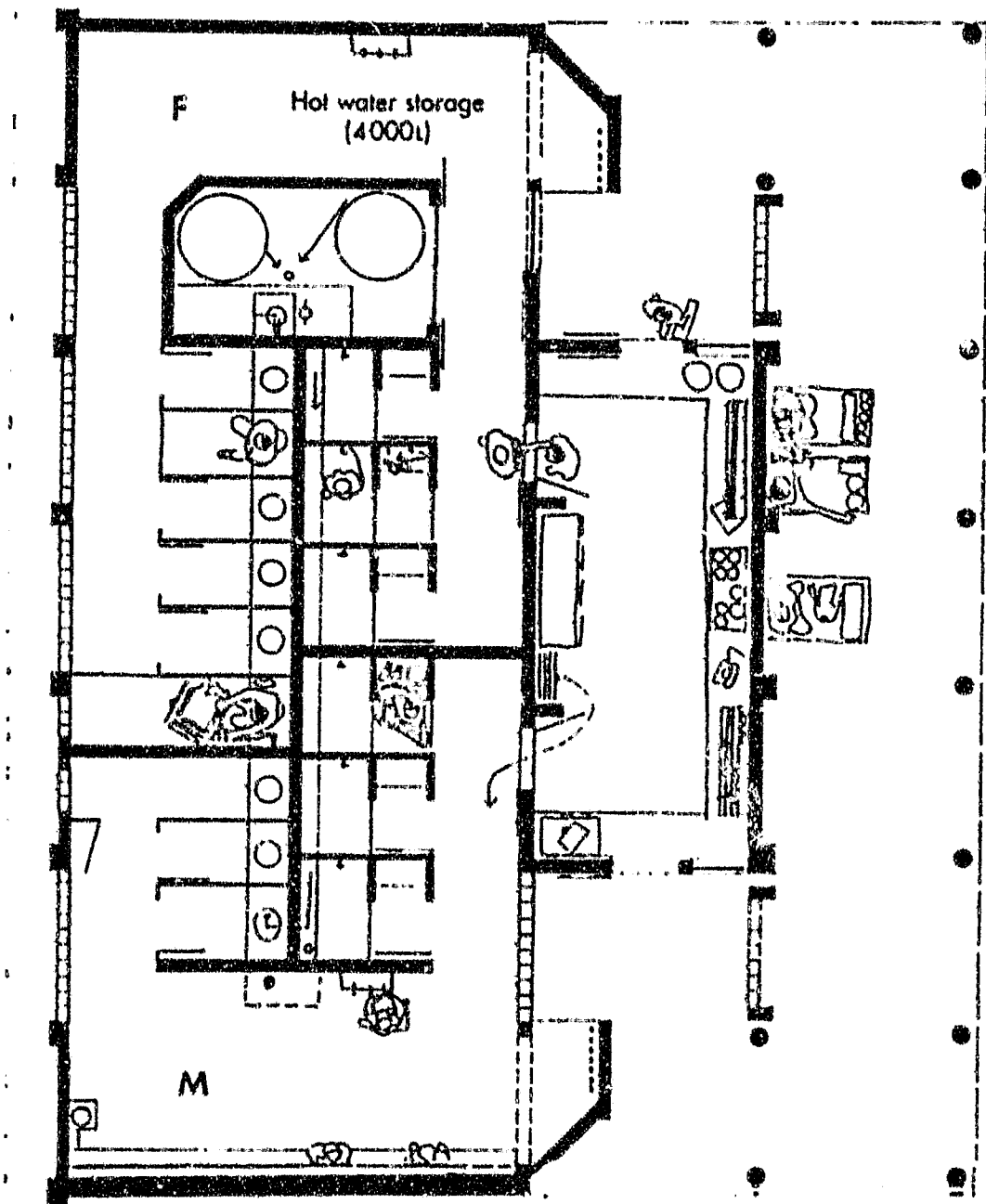
MOVEMENT

ELLIS PARK URBAN DESIGN FRAMEWORK



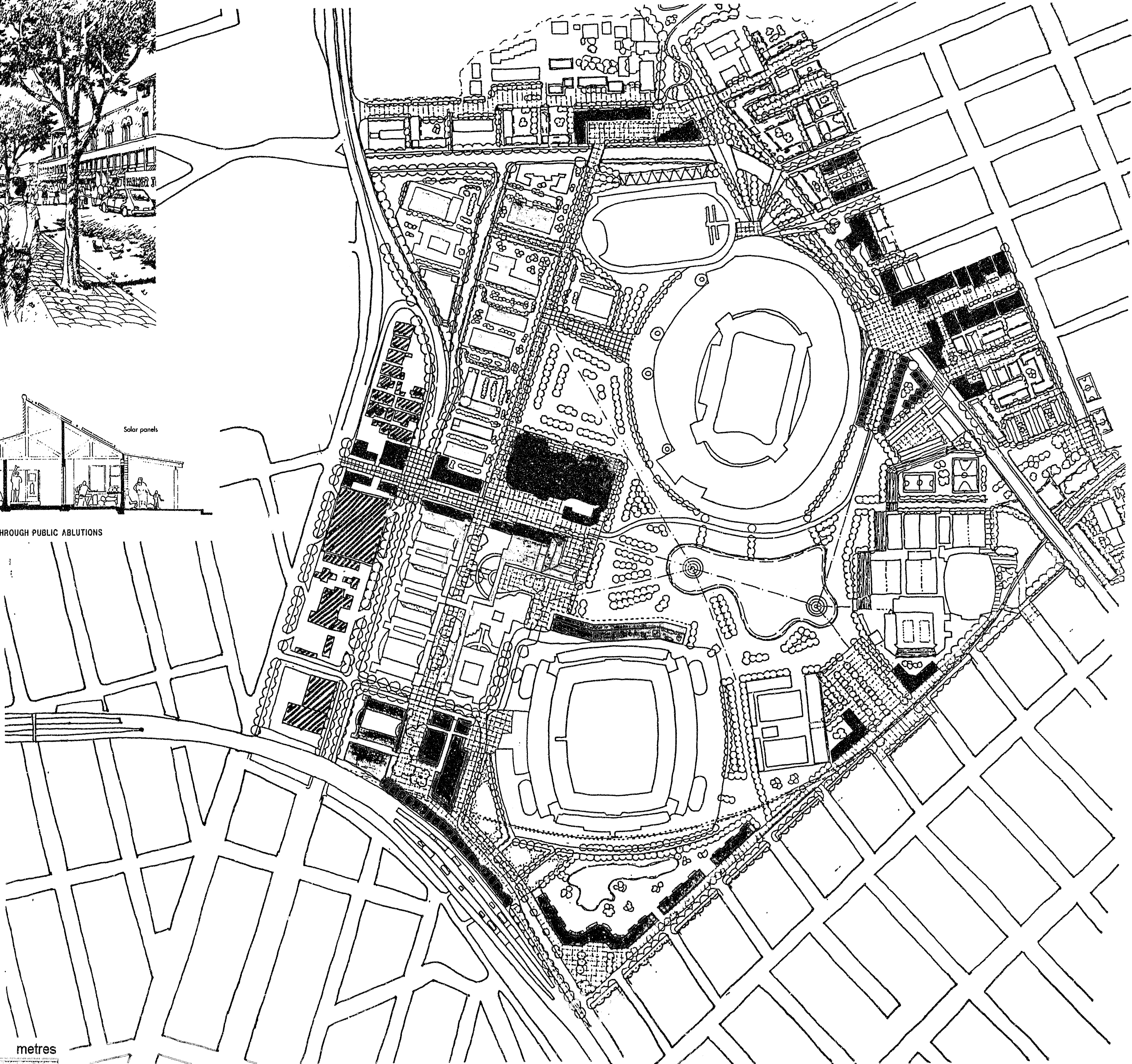
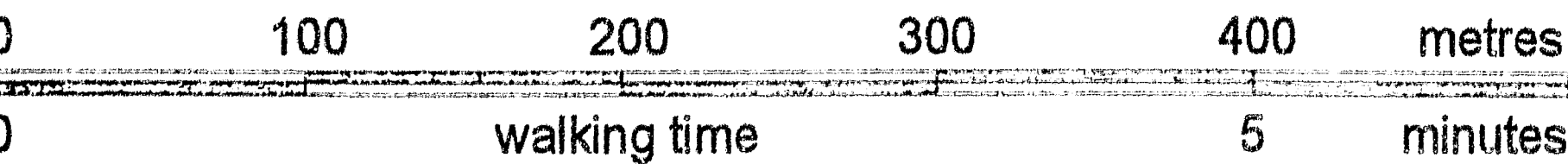


PERIODIC MARKET
Source: Katz, 1994



PUBLIC BATH HOUSE PLAN & SECTION
Source: KZ-NIA Journal, 1997

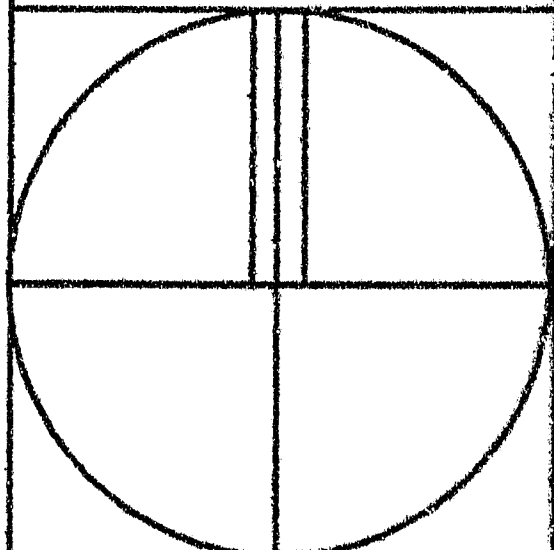
- LEGEND**
- RETAIL / ACTIVITY STREET
 - MIXED BUSINESS / COMMERCE SPINE
 - INFORMAL TRADE / MARKETS
 - HIVE MANUFACTURING / WORKSHOPS / SMALL BUSINESS DEVELOPMENT CORP.
 - OFFICES / INSTITUTIONAL
 - HOTEL
 - LIGHT INDUSTRIAL / MANUFACTURING

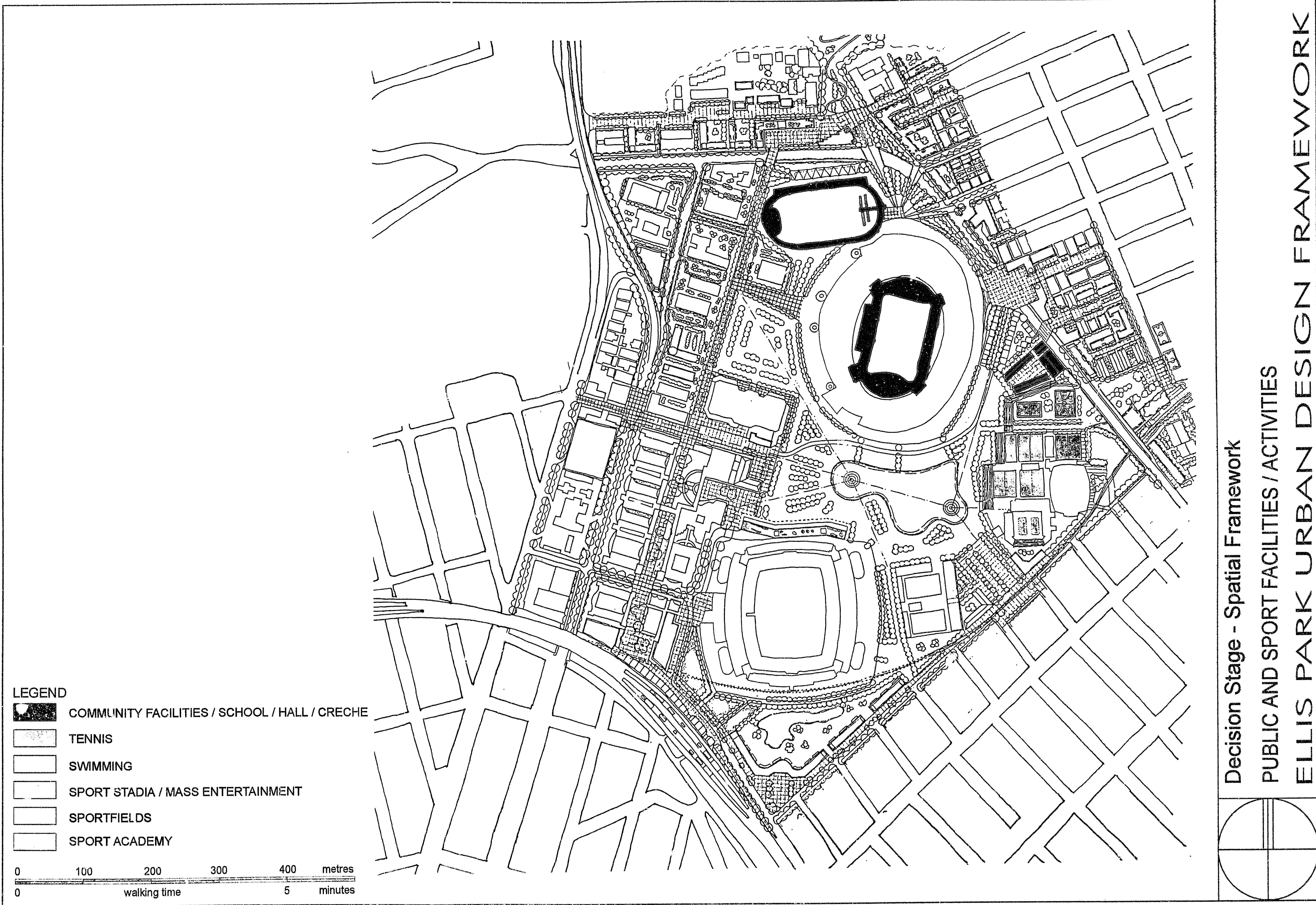


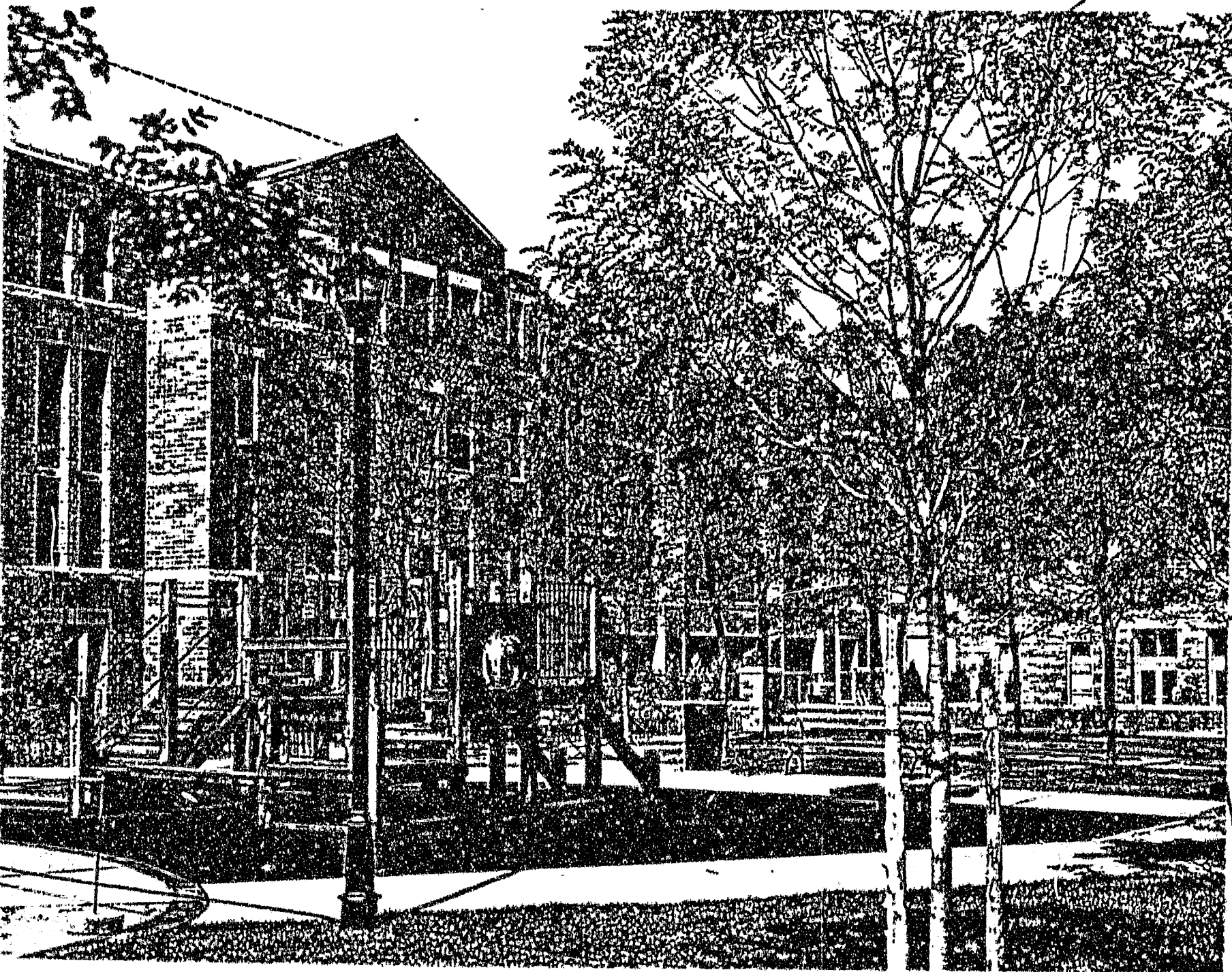
Decision Stage - Spatial Framework

ACTIVITY PATTERNS / LAND USE

ELLIS PARK URBAN DESIGN FRAMEWORK







IMAGES OF RESIDENTIAL ENVIRONS
Source: Colquhoun, 1995

LEGEND

- HIGHER DENSITY (4-6 Storey Blocks and 3-4 Storey Walk-ups)
- "SPRINGFIELD TERRACE" TYPE
- BOARDING HOUSES
- HOME WORKSHOP COURTYARD TYPE
- HOME WORKSHOP RESIDENTIAL BLOCK
- HOTEL

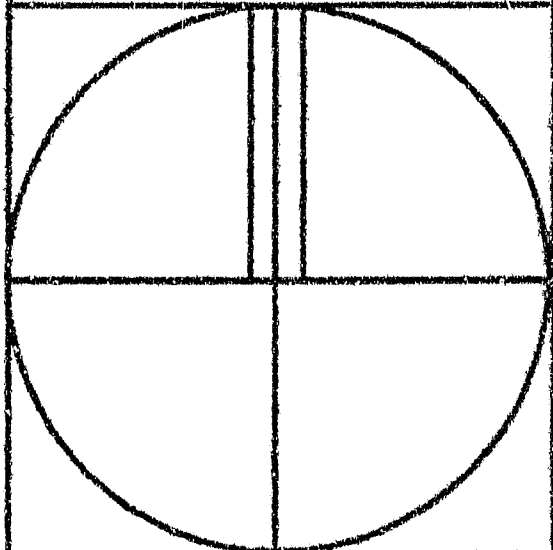
0 100 200 300 400 metres
0 walking time 5 minutes



Decision Stage - Spatial Framework

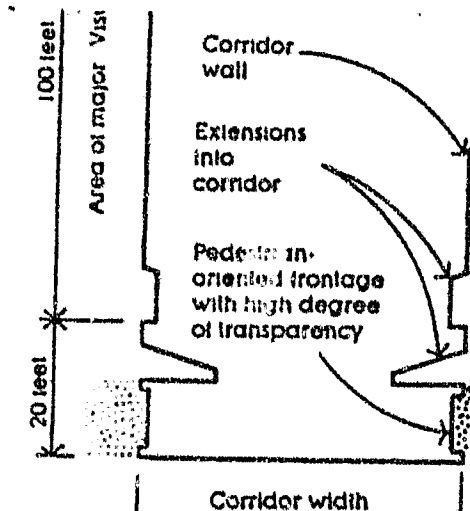
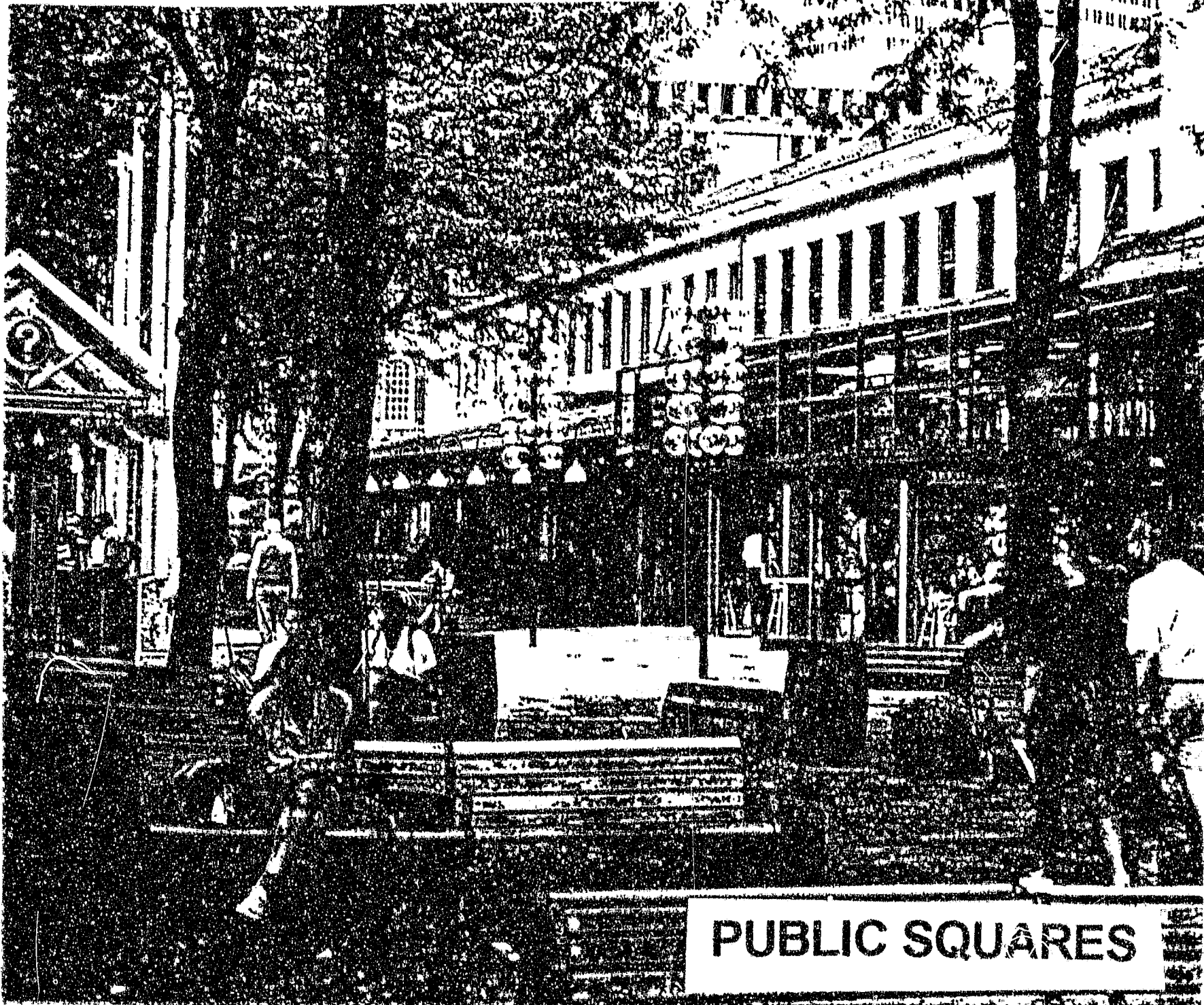
RESIDENTIAL DIVERSITY

ELLIS PARK URBAN DESIGN FRAMEWORK

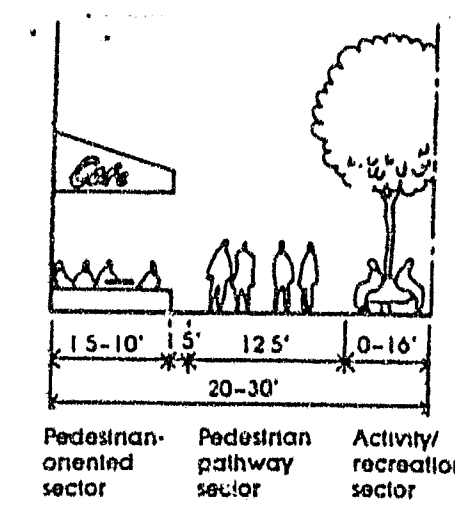


IMAGES OF PUBLIC PLACES

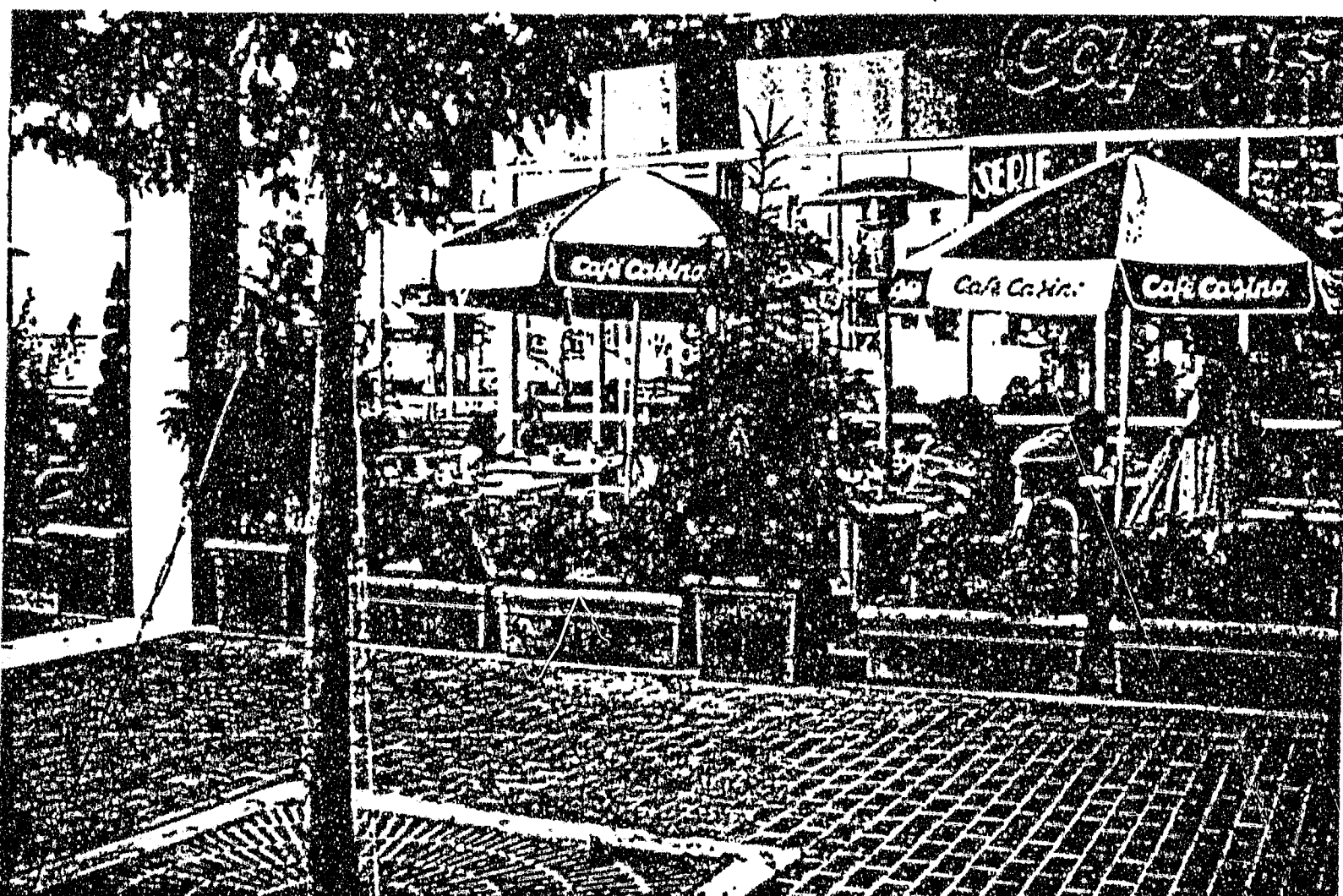
Source: Moudon, 1987



16-5 Pedestrian corridor "wall"
(Source: DMA/PPS & TRA)



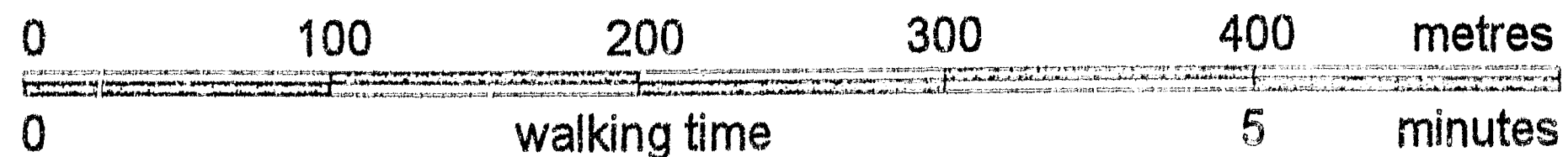
16-6 Pedestrian corridor "floor"
(Source: DMA/PPS & TRA)



SIDEWALKS CAFÉ'S / RESTAURANTS

LEGEND

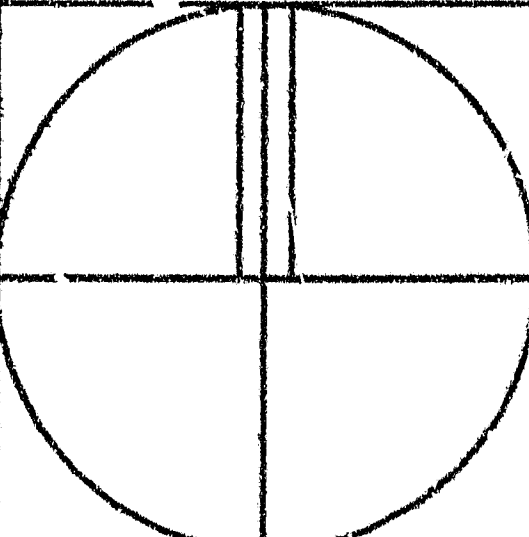
- PRIMARY BOULEVARD / EDGE TREES
- STREET TREES / SHADE TREES
- PUBLIC PARK AREAS (linked with ridge & river valley)
- WATER-FEATURES / LAKES (Jukskei River Source)
- PEDESTRIAN PATHS / PUBLIC SPACES
- STADIUM CONCOURSE



Decision Stage - Spatial Framework

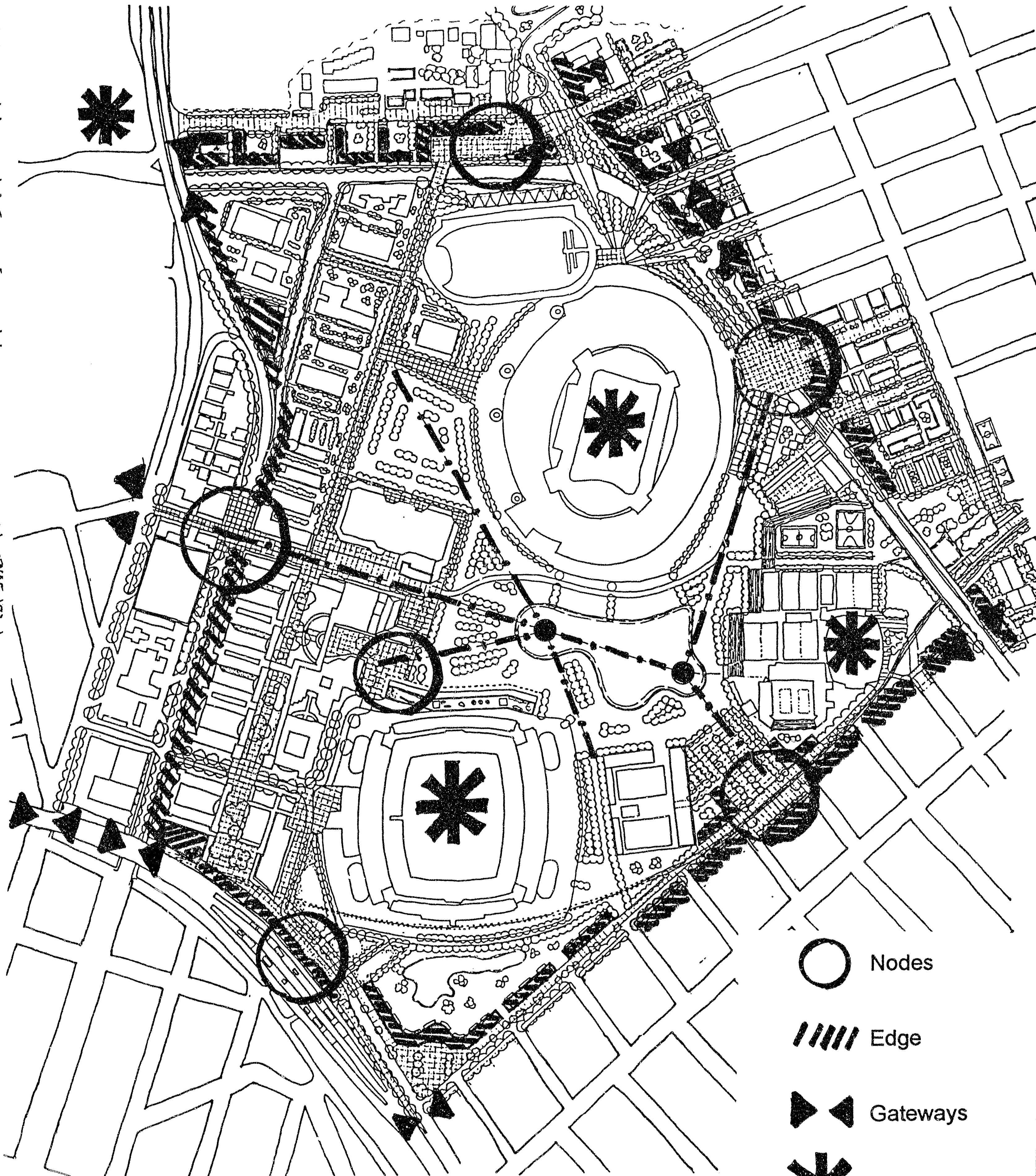
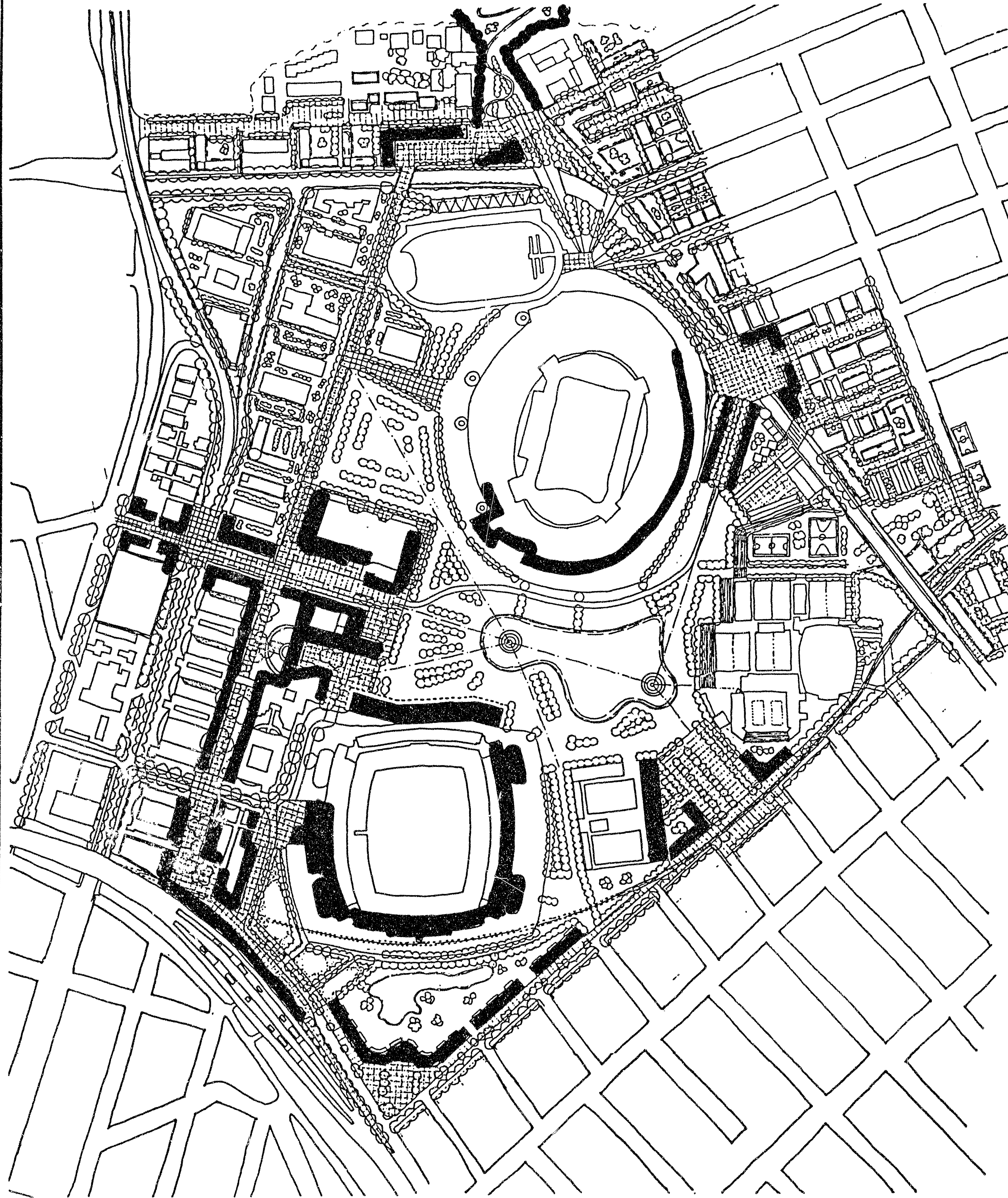
ENVIRONMENTAL CHARACTER AND LANDSCAPING

ELLIS PARK URBAN DESIGN FRAMEWORK



PLACE MAKING

IMAGEABILITY



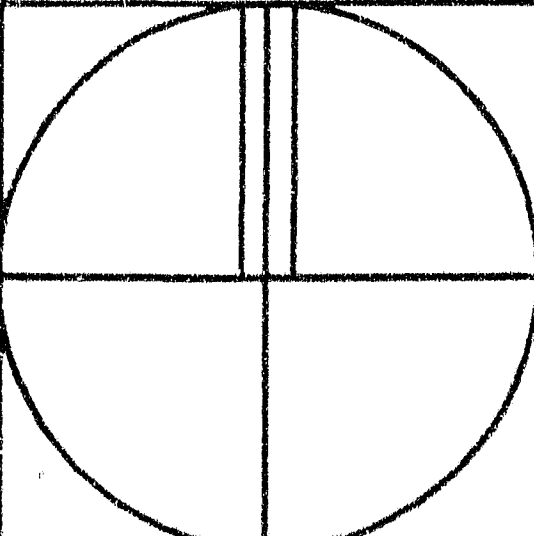
Built form as a response to the public environment

- Nodes
- //// Edge
- ◄ ► Gateways
- * Landmarks
- Focal Points
- Vistas

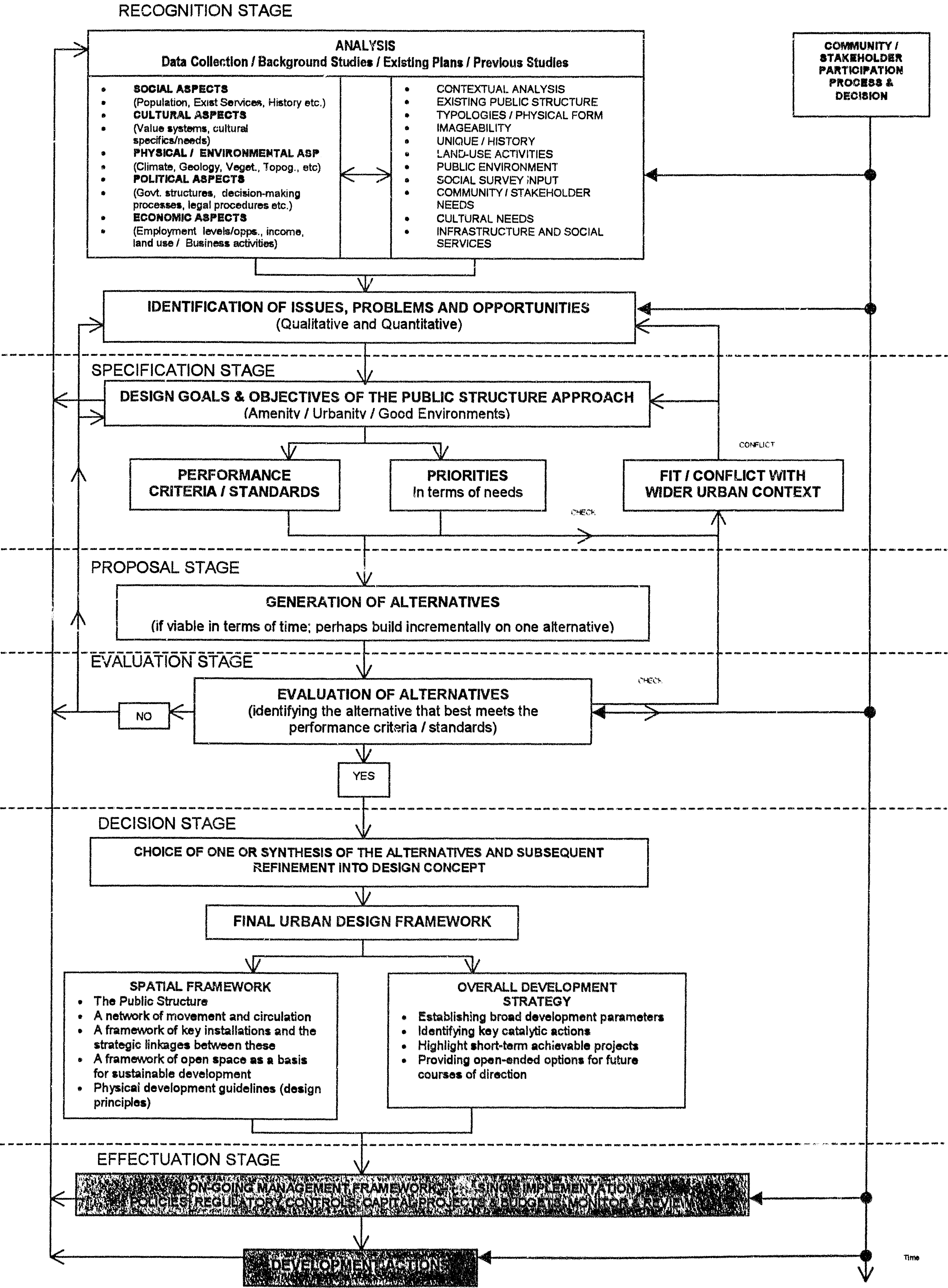
Decision Stage - Spatial Framework

PLACE MAKING AND IMAGEABILITY

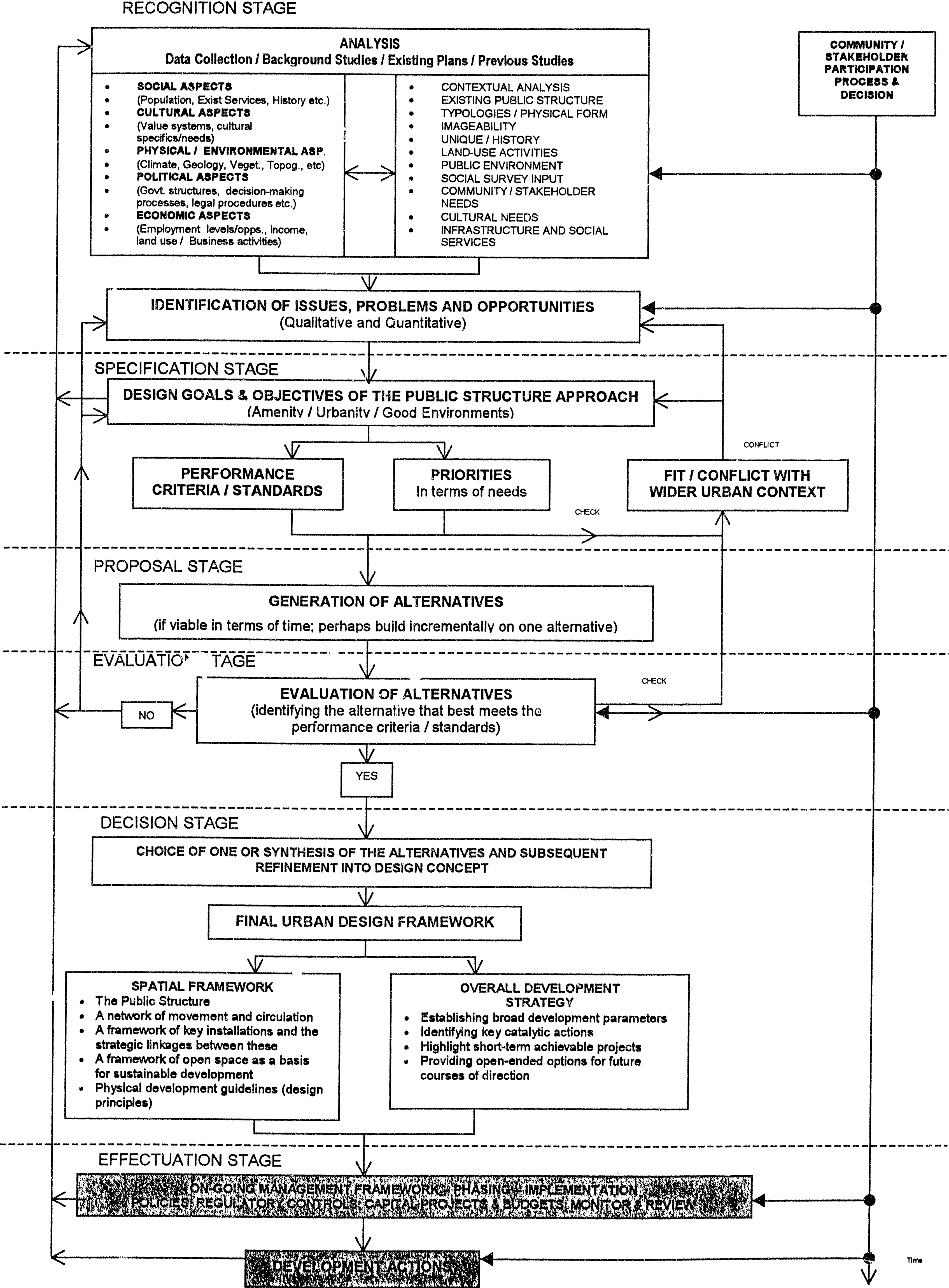
ELLIS PARK URBAN DESIGN FRAMEWORK



8.7 EFFECTUATION STAGE



8.7 EFFECTUATION STAGE



MANAGEMENT FRAMEWORK

A management and implementation framework is required to guide the redevelopment process of the Ellis Park Precinct in terms of the public structure urban design framework.

The management framework provides the basis for managing the redevelopment process. It essentially aims at establishing appropriate management structures, negotiations with stakeholders to obtain input and support, initiate development action (including public / private partnerships), managing the development strategy and planning and managing the ongoing development.

An important part of the management strategy is the establishment of an appropriate management structure that is responsible for and co-ordinates the redevelopment process. In the context of the Ellis Park Precinct this requires the establishment of an appropriate management agency, agreed to by all stakeholders.

The first step of the management process is the establishment of a City (or Business) Improvement District (CID). This is a geographic area within which property owners and / or tenants agree to pay for certain services supplementary to those supplied by the Local Authority, specifically for the purpose of enhancing the physical and social environment of the area. The property owners and / or tenants determine the type and scope of services that are required based on the needs of the area under consideration. These typically include security, clean-up, maintenance, marketing, physical improvements and special programmes to address aspects such as transportation, access, parking and homelessness.

The CID's have been formed in response to declining municipal budgets and services, and seek to enable more equitable urban management in order to maintain acceptable standards. Urban management of a defined area is brought down to the street level with a focus and attention to detail that is not possible from local government. These managed environments offer friendly, clean and safe conditions that are a prerequisite for investment and growth. Business Improvement Districts, or City Improvement Districts as they are known in South Africa, have led the provision of managed environments. They are a proven tool in the fight against urban deterioration. The services undertaken by CID's include:

Maintenance - CID's provide maintenance services over and above those provided by local government, including frequent sidewalk sweeping, trash and debris removal, periodic power washing of sidewalks and immediate removal of graffiti from buildings and public amenities.

Security - CID's provide extra security to augment services from local police departments. Types of security services range from conventional security patrols to "ambassadors" who have extensive customer service training and help consumers find the services they are looking for.

Marketing and Promotions - Marketing programmes aim to improve the overall image of a business district through collaborative promotional strategies, market research and working with the media.

Special Events - Special events reinforce the business district's drawing power as a destination, often targeting consumer markets that typically underutilise it. Many CIDs manage a yearly events calendar that maintains an active schedule of lively attractions.

Parking and Transportation - Where possible, CIDs manage or expand the parking supply within a business district, through validation programmes, management of municipal garages, sponsorship of local shuttles and advocacy for regional transit.

Economic Development - Many CIDs provide services to attract jobs and investment to business districts, carrying out market analysis, developing databases and structuring public / private financing for redevelopment projects.

Human Services - CIDs are becoming active partners with human service agencies to help address the issue of the homeless and other street populations. Examples of CID sponsored initiatives include, maintenance programmes that employ homeless persons and community service co-ordinators who direct street populations to services.

Capital Improvements - CID improvement options include visible amenities such as street lights, benches, kiosks, additional litter receptacles and public art. Many CID's have bonding capabilities that allow for ambitious public / private capital improvement programmes.

CATALYTIC ACTION 1:
Establishment of Ellis Park City Improvement District



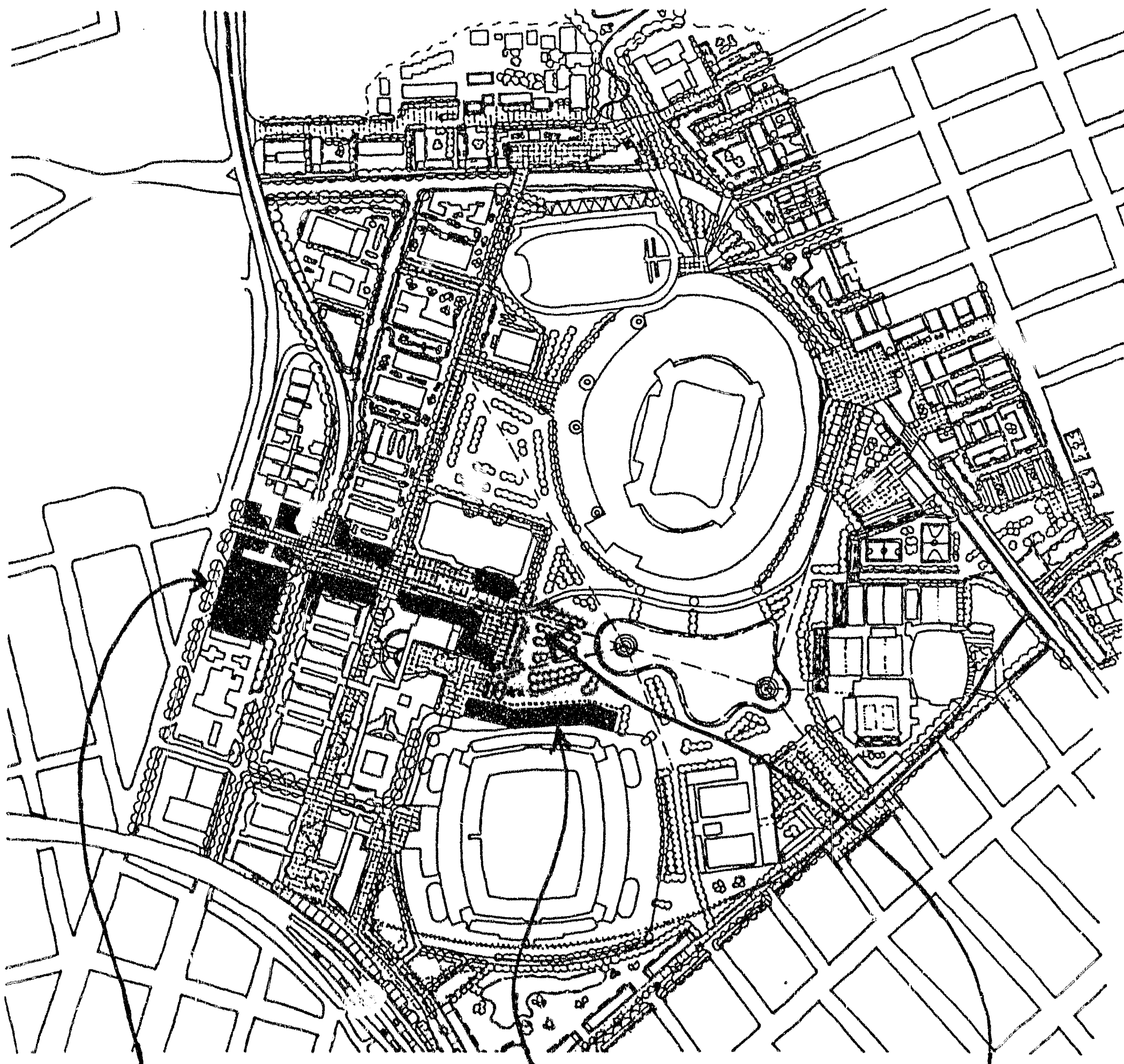
IMPLEMENTATION STRATEGY

The implementation strategy consists of establishing various measures that underpin the management strategy to achieve physical development. These encompass the establishment of policy and regulatory controls, capital projects and budgets

To achieve this, the design framework establishes broad development parameters and guidelines in terms of which development may take place, and identifies catalytic actions in terms of which the initial strategic actions are undertaken. The control mechanisms in this regard can encompass zoning regulations, floor area ratio's, height specification and coverage, performance standards, control of access, utilisation of review boards etc. Furthermore economic and regulatory incentives are also a means of guiding development, encompassing principles such as tax abatement, tax increment financing, revenue bonds, special areas, as well as planned unit development, the transfer of development rights, incentive zoning, grants and economic benefits.

In the context of the Ellis Park Precinct the key catalytic actions are the establishment of the City Improvement District and the concomitant urban management, providing safety and security, cleansing and physical maintenance. This forms the base on which the urban design framework can be implemented, as there is a renewed commitment to the area and a stable and predictable resource base. The second action is the development of the first catalytic project.

CATALYTIC ACTION 2:
Phase 1 Development

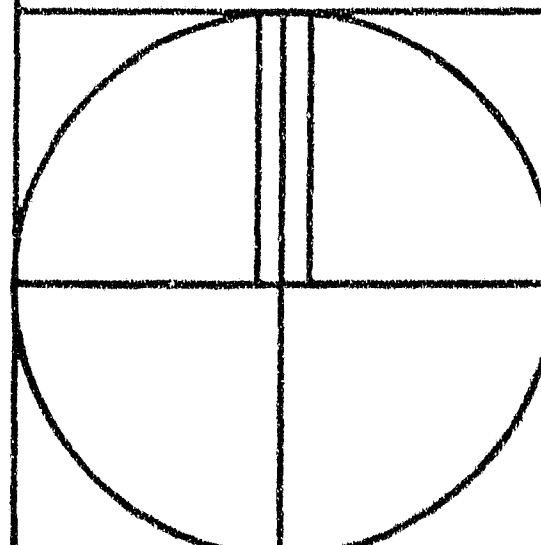


(Structured Parking Facility, Sport Academy and Hotel, Upgrade of the Public Environment along Beit Street as envisaged in terms of the Urban Design Framework)

Effectuation Stage

MANAGEMENT AND IMPLEMENTATION FRAMEWORK

ELLIS PARK URBAN DESIGN FRAMEWORK



CHAPTER 9

EVALUATION AND RECOMMENDATIONS

9.1 INTRODUCTION

The purpose of the evaluation is to critically assess the public structure urban design approach. The evaluation is undertaken from two sides. The first examines the applicability and the relevance of the established approach to the case study. The second understands whether the case study has any implications on the overall approach and its underlying theory base. The conclusions reached from the evaluation are outlined in a set of recommendations, which direct future studies and / or courses of action in this regard.

9.2 EVALUATION

The evaluation that is brought to bear on the public structure urban design approach is based on the work undertaken previously in chapter five. In the latter a matrix of good city form criteria was utilised to assess the relevance and applicability of the chosen urban design theory. This is undertaken in Figure 9-1 (over the page).

The public structure urban design approach fares reasonably well when compared to the good city form criteria. The following aspects are highlighted:

- The approach covers all aspects regarding human needs and vitality sustenance. Shelter, water, food, energy, health, economic issues and skills and education, are all considered. The reason for waste removal being only indirectly considered is the location of the case study within the Inner City, which already has extensive service infrastructure, including the processing of solid waste.
- Safety and security aspects are primarily considered in terms of physical security, emergency services and related management practices. Issues concerning disease suppression, flood control and the control of hazardous substances are more applicable to the urban periphery context.

- The public structure approach achieves significant consonance, as it specifically aims to meet people's needs and promotes ecological sustainability. Indirectly therefore aspects such as environmental learning and natural rhythms are considered

Culture and religion play inherently an important role in the public structure urban design approach. However, a lack of relevant information and time constraint, has caused that this component is weaker in the current study.

- The criterion of sense encompasses many components. It is certainly the aim of the public structure approach to enable the design and development of a place that fits the values of the inhabitants / users and create a specific identity in terms of place. Furthermore the approach clearly sets out the functions of the components that comprise the urban milieu, and enables physical and structural legibility.
- A fit with regard to behaviour setting, choice and visual appropriateness are inherent aims of the public structure approach. The latter have been achieved in the Ellis Park Precinct urban design framework. However, within the context of an Inner City environment, adaptability, malleability and reversibility become more difficult due to the more durable nature of the environment, and the influences directed by adjoining districts and land use activities.
- Within the context of a post-apartheid spatial urban environment, combined with an underlying philosophy of "ubuntu", the criterion of justice is very important in the public structure urban design approach. The various aspects of the justice criterion are addressed in one way or another, from the principle that the public realm compensates for private realm inadequacies, appropriate density and minimum space per person, fair facility distribution, pedestrian permeability, a human scaled environment, the promotion of mixed use activities, enabling a public - private gradient, promoting urban self-reliance, defensible space and liveable streets, the inclusion of stakeholders and communities

within the design process, and accommodating a multitude of actors within the urban milieu.

- The criterion of access is a major component of the public structure urban design approach. It aims to achieve and enable access for all people to a range of opportunities, resources, facilities and services. This includes various modes of transportation, from public and pedestrian through to private, without one dominating over the other, or taking advantage at the cost of another. It encompasses access to information, as well as diverse environments. It also incorporates access to autonomy, enabling a person or group / neighbourhood to personal freedom and "self government" within the framework of the society's laws, norms and values.
- The good city form criteria of control and efficiency relate to aspects of management and the utilisation of resources. It is an inherent requirement within the South African context of scarce resources and dire needs to utilise resources efficiently as possible. Furthermore, urban design requires to enable the development of urban environments that maximise the utilisation of resources and promote their efficient use. This includes aspects such as functional and economic efficiency, cost- and energy saving, investment protection and meeting the needs for a range of income groups.
- The laws, culture and values of the particular society direct the criterion of control. In this regard the public structure urban design approach aims to facilitate appropriate control within the spectrum ranging from exclusion, to temporary appropriation, modification and personalisation, through to the responsible use of public spaces.

In the context of the above evaluation, the public structure urban design approach does achieve a significant number of the adapted good city form criteria. The degree to which the criteria are achieved is in part directed by the context, within which the approach is applied, which is in this particular instance the Inner City.

9.3 RECOMMENDATIONS

The following recommendations are made within the context of the above evaluation:

- The public structure urban design approach requires to be tested in different city contexts, such as the suburb, the township and edge city environs. This would yield a more thorough test of the principles inherent in the approach.
- The application of the approach to a precinct level as opposed to a district one. This will enable the further refinement and adjustment of the approach.
- The expansion of the urban design theory and base to include a wider spectrum than the current North American and European content, including experiences in climates similar to South Africa. These aspects may further refine and adjust the public structure approach.

APPENDIX A

DISTINCTIONS BETWEEN PUBLIC AND PRIVATE

The concept of a "public realm" or "public sphere" indicates that area of social- and urban life that is open to all enfranchised members of the urban population (the community). This "public sphere" notion has its origins in the Athenian *agora*, which has in principle over the centuries been associated with a physical place of face-to-face communication forming the underpinnings of democracy.

In practice, however, Kasinitz (1995) reminds us, many of the world's great public spaces have been created by societies that were far from democratic:

" rich cosmopolitan public life often comes about in places where popular participation in government is quite limited, and the political participation of the masses has, at times, been the enemy of tolerance and pluralism - compare the Vienna of the mid-nineteenth century with the Vienna of the early 1930's" (Kasinitz, 1995:273).

Although public spaces, in theory, grant unhindered access to all members of the urban community, they are not spaces, which permit people to act in any way they please. There are quite distinct rules, norms and dynamics that govern human endeavour and activities within the public environment. As noted by Jukes in Kasinitz (1995:274)

"Streets are a means of communication. Like other media they have their codes and conventions.....".

Currently, Weintraub (1995) argues, there are four major ways in which the public / private distinction is used:

- a. *Economic* (the market): the distinction of public / private is seen primarily between the state administration, and the market economy. For example, the term 'public good' means an essentially collective benefit. The economic public / private is based on neo-classical economic analysis. Here society comprises individuals that pursue their self-interest more or less efficiently (i.e. rationally to their best ability based on knowledge and information) and enter into voluntary (particularly contractual) relations between and the state. In this regard the distinction between public and private is considered as public-sector versus private-sector, i.e. meaning a distinction between governmental and non-governmental, the field of the latter being primarily the market. In this regard the use of public / private is guided by aspects of jurisdiction, both in terms of
 - Activity and services - i.e. authority of the public administration versus that of private sector organisations and / or individuals, whether some activities or services should be left to the market or be subject to government intervention.
 - Spatial and physical control where the activity and services are physically manifest.

- b. *Citizenship*: the distinction of public / private is defined by public being the realm of political community based on citizenship:

"At the heart of public life is a process of active participation in collective decision-making, carried out within a framework of fundamental solidarity and equality" (Weintraub, 1995).

This is based on models drawn from *antiquity* which define political structures of rule and political action. Weintraub (1995) summarises these as being:

- The self-governing polis or republic (*res publica*, literally "public thing") from which the notion of *citizenship* is inherited, comprising the participation of individuals, in their capacity as citizens, in a continuous process of conscious collective self-determination.
- The Roman empire, encompassing the notion of *sovereignty*: essentially a centralized, unified and omnipotent apparatus of rule that governs the society through the enactment and administration of laws.

"The public power of the sovereign rules over and, in principle, on behalf of a society of private and politically passive individuals who are bearers of rights granted to them and guaranteed by the sovereign" (Weintraub, 1995).

The two models are very distinct with a clear differentiation between public and private.

Many Western models of political structures are based on the notion of sovereignty, where politics centre on the issues of rulership (or Roman term, domination), its nature, its modes and its limits. It is based on an assumption that separates the rulers and ruled (whether it takes the side of the rulers or the ruled). In contrast, classical moral and political philosophy is based on a process of collective decision-making by a body of citizens in community - although the 'community' may be restricted and / or exclusive. (Weintraub, 1995)

In this context the classic definition of a citizen by Aristotle is one who is capable both of ruling and being ruled. It is not a matter of domination and compliance (or resistance), but focussed on participation in collective self-determination.

The practice of citizenship is inseparable from active participation in a decision-making community based on solidarity and equity. However, it is important to note that membership in a community does not necessarily constitute citizenship. Citizenship comprises the participation in particular kind of community, based on fundamental equality and the consideration and resolution of public issues through conscious, collective decision-making.

These notions have been gradually rediscovered in the development of modernity, and in particular the attempt to realise, institutionalise and combine them. This is due to three factors:

- the development of modern civil society based on *"the social world of self-interested individualism, competition, impersonality and contractual relationships - centred on the market* (i.e. humanism and capitalism)" (Weintraub, 1995);

- the re-emergence of the notion of sovereignty, based on the public / private distinction of separating administrative state and civil society - one dichotomy being mapped onto the other; and
- the recovery of the notion of citizenship, comprising the 'public' notion of being a realm of participatory self-determination, deliberation and conscious co-operation among equals, *"the logic of which is distinct from those of both civil society and the administrative state"* (Weintraub, 1995).

In the above context, Weintraub (1995) argues that it is insufficient to utilise the public / private distinction as an overall model to understand social life in society, due to the associated complexities and varied nature. Rather, the focus should be to use one or another version for specific and carefully identified purposes. Accordingly the notion of 'public' cannot be restricted to the state (and politics), neither can social life outside the state (and its control) be simply defined as private.

"In short these two notions of public - and the two versions of the public / private distinction in which they are embedded - rest on crucially different images of politics and society". (Weintraub, 1995:295).

- c. *Sociability*: is based on a notion of cities having a rich public life, as espoused by Jane Jacobs and in the society of the old regime, "life was lived in public". The key aspect being that the concept of public does not necessarily have anything to do with collective decision-making, nor even the state, nor solidarity or obligation, but sociability.

The solution to this situation seemingly lies in complexification that yields a public sphere of life, in the sense of sociability that mediates between the intimacies of private life and the extreme impersonality and instrumentalism of *Gesellschaft*. Such a "wealth of public life" has been one of the characteristic achievements of the successful cosmopolitan city.

- d. *Household / Family*: the distinction of public / private through the separation of the market economy (becoming the 'public') and the family. This is rooted in the fundamental notion between private and public as that between the household (the *oikos*) and the political community (the *polis*). The latter being the area of wider engagement and fundamental equality in the practice of citizenship.

APPENDIX B

A HISTORIC OVERVIEW OF PUBLIC SPACE COMPONENTS AND THEIR ROLE IN URBAN ENVIRONMENTS

A historic overview of public space is undertaken, beginning with ancient cities up to and including the 19th century. The purpose of this is to elicit the principles that enabled a liveable urban environment in terms of the social function and roles these public spaces played within the context of their societies. The latter's conclusion is presented in Chapter Four. This appendix is an indication of the scope of work undertaken and is included for purposes of reference to the reasoning established in Chapter Four.

B1 THE ROOTS OF URBAN FORM

Morris (1994) identifies a number of 'sources' of urban form development. The first is Mesopotamian urban form, the root of Islamic urban culture:

"... the urban form and organisational system prevalent in most traditional cities within the Islamic world originated in pre-Islamic models; in particular the Mesopotamian model" (Prof. B.S. Hakim in Morris, 1994).

The second is Greek urban form, which is the root of the Western European "Christian" urban culture. The third is Indian urban form; and the fourth is the Chinese

B1.1 Mesopotamian Origins:

The Islamic Foundation (Organic Growth)

The urban street system was strongly influenced by climate, the pre-urban cadastre, and urban mobility (refer Figure B-1). The severe climate of the desert with high temperatures and hot winds resulted in narrow street development for shade and winding streets with closed vistas to avoid the wind. Contributory factors to this street system were the processes of land allocation and incremental growth shaped by a pre-urban cadastre comprising irregularly shaped gardens, palm groves and small fields. The streets were also required to only cater for minimal-width pack-animal traffic (Morris, 1994). A characteristic of Islamic urban morphology is access to individual houses through cul-de-sac from thoroughfares – an arrangement that facilitated domestic-domain security.

B1.2 Egyptian Origins:

The emergence of the Grid (Rectilinear Growth)

The evolution of urban settlements in Egypt were focused along the Nile River and its delta, with its fertile soil, water and the associated opportunities that these offered to human life. Egypt was a unified state from about 3100 BC.

The ancient city of Tel-el ' Amama (refer Figure B-2) is characterised by a supergrid layout. It is an early example of that kind of partial urban layout whereby the 'authorities' laid out a main route structure and left the infilling to the occupants (Morris, 1994). This city included a detailed planned workmen's village in gridiron layout.

Kahun is the earliest known example of gridiron layout planning application, although this was specifically used for the Egyptian-type temple-town (refer Figure B-3). Its reason for existence was the mortuary temple, its primary economic source. However, there was evidence that other sources of employment were agriculture and building work.

B1.3 Indian Origins:

The Harappan Cities (The Superblock)

As referred to earlier, Harappan civilisation (2150 - 1800 BC) in the Indus Valley is accredited with the earliest planned cities, characterised by a 'supergrid' layout. The lower cities, in relation to the citadels, were laid out on a rectilinear basis of main east-west routes directed to the citadels, and north-south cross routes.

The view that Harappan cities were the earliest planned cities is as yet not agreed to. Many urban historians consider that it was the Greek architect-planner Hippodamus of Miletus, who formally organised a complete new urban entity in his plans for the rebuilding of Miletus in 479 BC (This is discussed in later sections).

In a postscript on the fall of the Harappan civilisation, Morris (1994) notes that this civilisation was completely destroyed, and quotes Volwahn (1970):

"the ancestors of these new city builders had completely destroyed the urban civilisation of the Indus Valley and their otherwise very detailed legends contain hardly any mention of them for this reason the transformation of their simple village culture into an urban civilisation of far greater complexity took place without any connection with, and even without any recollection of, the skilful town planning of their predecessors." (Volwahn in Morris, 1994:34).

The renewed Indian civilisation was driven and directed by strictly religious principles, that resulted in a comprehensive theoretical and practical basis of urban development / planning. This encompassed the selection and application of a suitable predetermined plan-form, the term for which is *mandala* (Morris, 1994).

B2 PUBLIC SPACE IN GREEK CITIES

The Greek city is characterised by clearly defined limits, a compact urban form and - superficially at least - an integrated social life (Morris, 1994). However, Greek culture comprised a balance between urban and rural, as summarised by Kitto in Morris (1994):

"City life, where it developed, was always conscious of its background of country, mountains and sea, and country life knew the usages of the city."

Wycherly in Morris (1994) concurs, stating that

"... the life of the Greek city state was founded upon agriculture and remained dependent on it;"

The determinants of Greek urban form, and its public spaces, were to a degree directed by factors inherent in the geographic context:

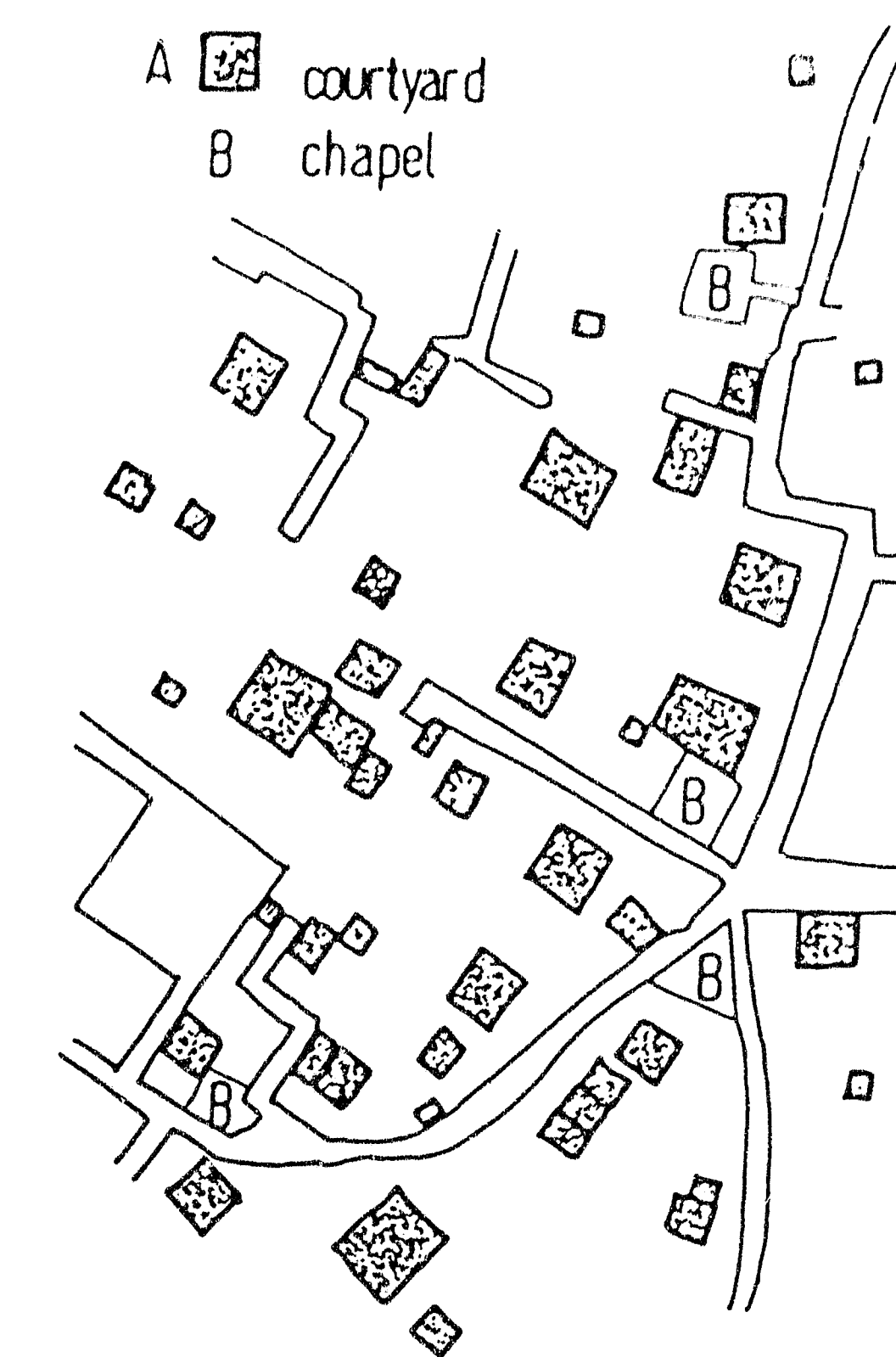


Figure B-1: Plan of Ur, Source: Morris, 1994:23

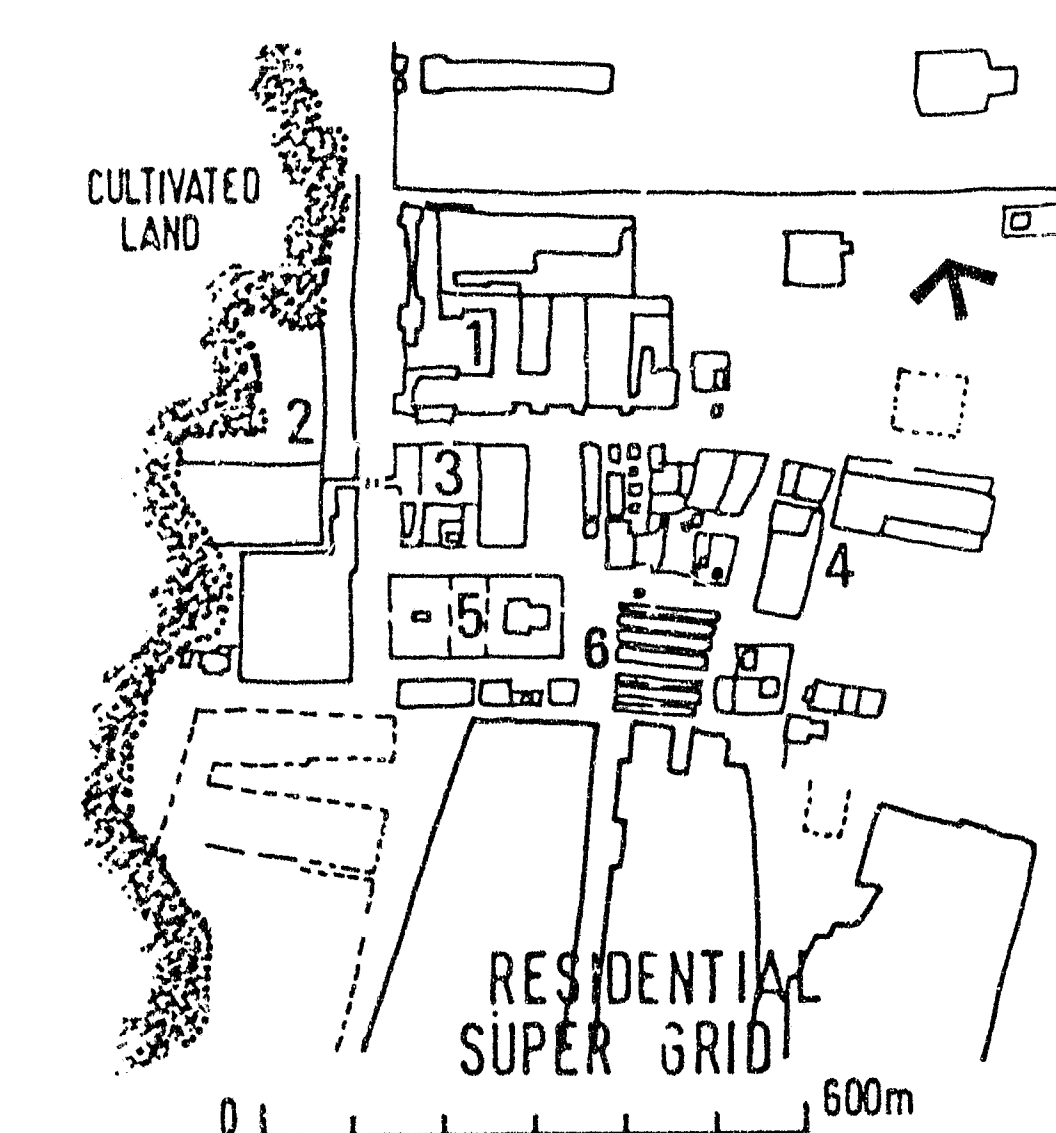


Figure B-2: Layout of Tel-el 'Amama, Source: Morris, 1994:28

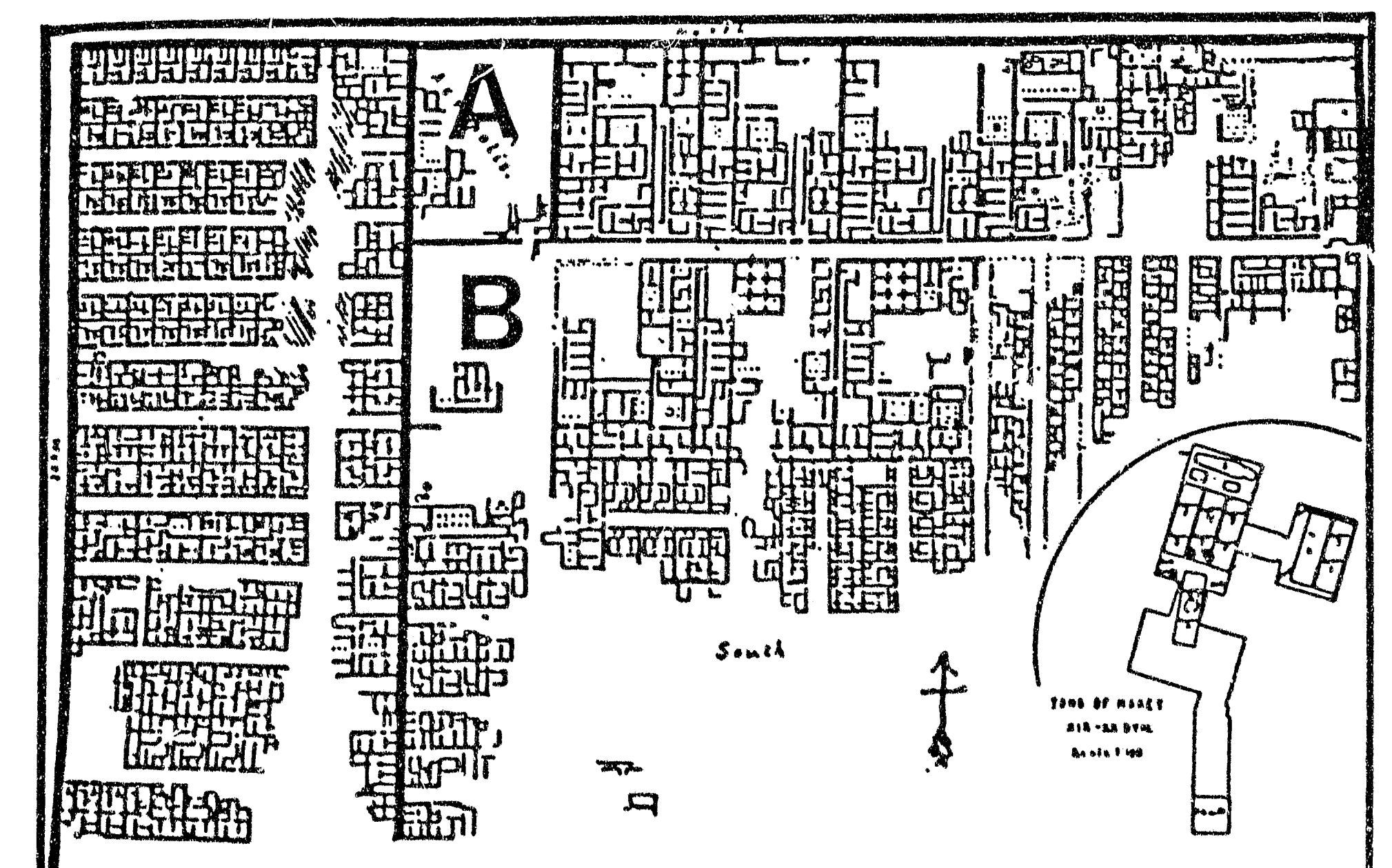


Figure B-3: Kahun grid-plan, Source: Morris, 1994:29

- Regional topography, resulting in the political-spatial organisation of clearly defined, separate city states, as opposed to a single unified nation.
 - Climate, which was pleasant and consistent throughout the year.
"This ... encouraged an open-air, communally orientated attitude to life, which assisted in the development of Greek democracy. In direct contrast, however, the domestic Greek world was that of privacy within the ubiquitous courtyard house."
(Morris, 1994:35).
- It also enabled Greek citizens to enjoy leisure (e.g. open-air theatrical ceremonies) and other civic activities in the open.
- Construction materials; the ready availability of high quality marble, enabling their development and architecture to achieve high standards and exceptional quality.

The basic elements of Greek city form comprised the acropolis, the enclosing city wall, the agora, residential districts, one or more leisure and cultural areas, a religious precinct (if separate from the acropolis), the harbour and port, and possibly an industrial district (Morris, 1994).

B2.1 Greek City Urban Form

There are two components of Greek urban development, which determined the urban structure and concomitant layout of the street system:

- planned urban form*, comprising either new towns or redeveloped city districts; and
- organic growth patterns*, exemplified by the city of Athens (Morris, 1994).

B2.1.1 The Organic Growth Pattern

The city of Athens (founded 1581 BC) was the product of organic growth that occurred over an extended period of time. Although the opportunity for redevelopment was realised by the devastation during the Persian wars, the Athenians decided to reinstate their old city. The reason for the growth of Athens is its acropolis - or hilltop site. Humans were attracted to the area by the presence of natural springs as early as 2800 BC. Furthermore, the site offered good defensive capabilities. Over centuries the Athenian Acropolis had become a sacred site dedicated to various Olympian gods, beginning with the worship of Athena (1581 BC). The city was at first contained on the hill-top site with a main approach path winding its way up the western slope. As the city grew in authority and extent, new housing districts were added incrementally on the surrounding plain around the lower slopes of the Acropolis. The paths leading from the base of the Acropolis out to the surrounding farms, became the streets of the growing urban settlement. The main path, the Panathenaic Way, was the main ceremonial /processional way between the Agora and the Acropolis. Over time the Acropolis assumed an ever-increasing religious function, becoming the religious precinct (which it remained throughout the city's ancient history). The Agora area developed into the market and meeting place, established at the point where the Panathenaic Way started its ascent up the western Acropolis slope. The resultant organic layout of the city of Athens is indicated in Figure B-4.

B2.1.2 Planned Urban Form

The first Greek planned town was Miletus, which had been destroyed by the Persian. Here, the grid was used and the urban structuring element for the planning of the new city. The plan of the new Miletus (479 BC) is accredited to Hippodamus, a Milesian architect, whom Aristotle describes in *Politics* as the man "who invented the art of planning cities".

Hippodamus rigorously applied the orthogonal grid, adjusting it to the general direction of the relatively level peninsula, rather than orientating the grid to the points of the compass, and divided the city into three distinct areas (refer Figure B-5). These comprised two residential areas to the north and south, with a commercial core - the agora - roughly linking the two harbours.

The principles embodied in the planning of the new Miletus were also applied later to Priene, constructed about 350 BC, as well as in founding colonies, such as Selinus.

B2.2 The Greek "Square"

B2.2.1 The Acropolis

The original defensive hill-top nucleus of the older Greek cities and fortified citadel of many founding colonial cities (refer Figure B-6). It originally served a public function as a place of refuge and protection from attack. In this regard all the important municipal and religious buildings were located on the acropolis, resulting only in the loss of a proportion of the relatively expendable housing (Morris, 1994). Morris (1994) concludes that

"From being the site of the total urban area, the acropolis either gradually evolved into the religious sanctuary of the city, or became deserted and left outside the city limits, as at Miletus."

From about the sixth and fifth centuries B.C. democratic Greek society required security for the whole community. As a result of the "exclusive" fortification of the acropolis it became the symbol of tyranny and was considered anti-democratic.

"An acropolis is suitable for oligarchy and monarchy and the level ground for democracy" (Aristotle in Morris, 1994).

This resulted in the development of city walls.

B2.2.2 The Agora

The communal heart of the Greek city, its open living room. It comprised an open public space with an intense and sustained concentration of varied activities - initially a marketplace (refer Figure B-7). It was the daily focus of all its citizens, their social scene, business and politics. It was defined by surrounding houses, public buildings and shops, and in the third century B.C. by *stoa*s. The latter were long buildings opened by colonnades along one side that provided shelter for artisans selling wares. The *agora* was overlooked by the Doric temple, dedicated to Hephaistos, god of the anvil, fire, and the forge, special to the artisans who traded in the agora. The buildings encapsulating the agora were smaller public buildings, a

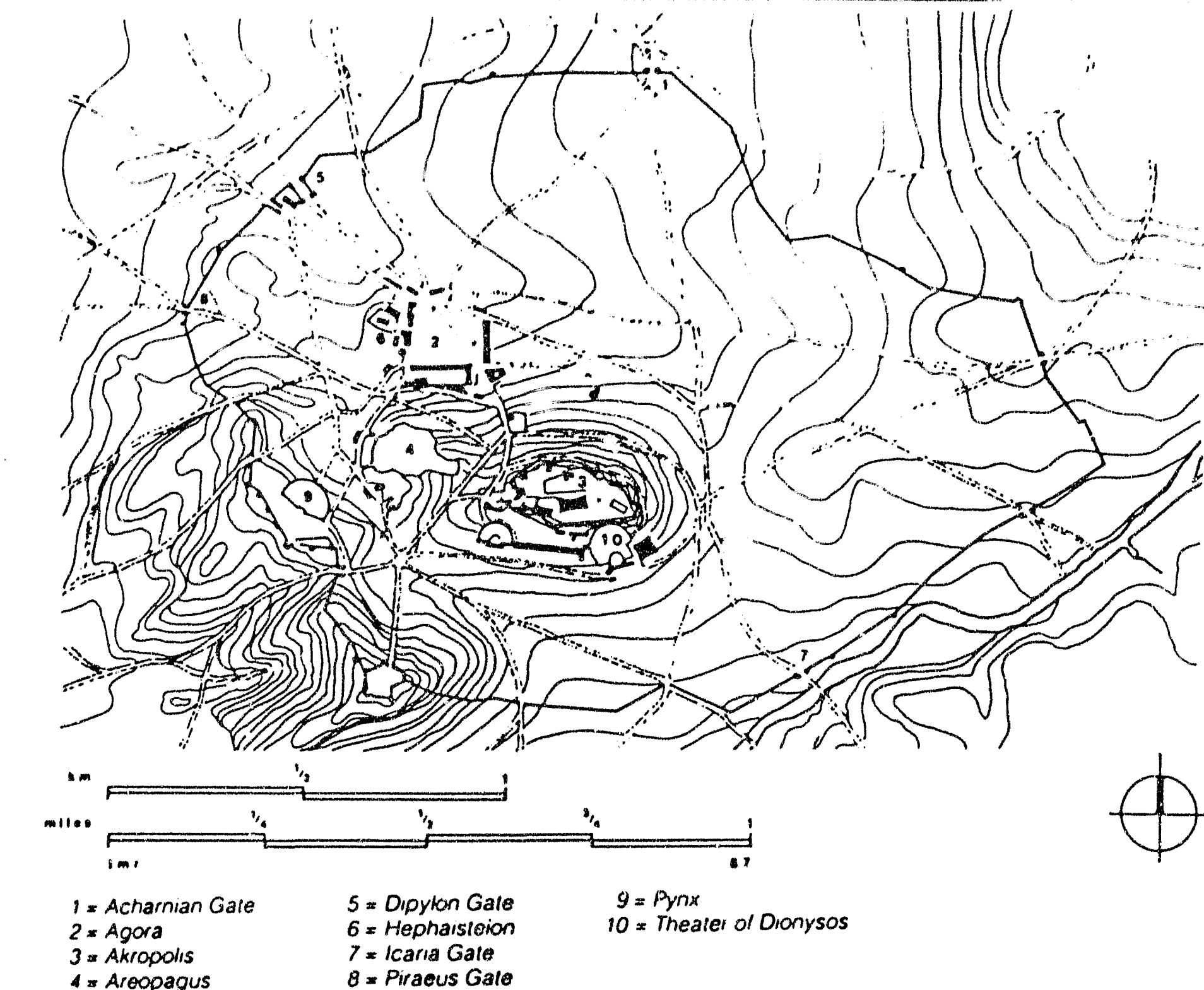


Figure B-4: Organic Layout of Athens, Source: Roth, 1993:190

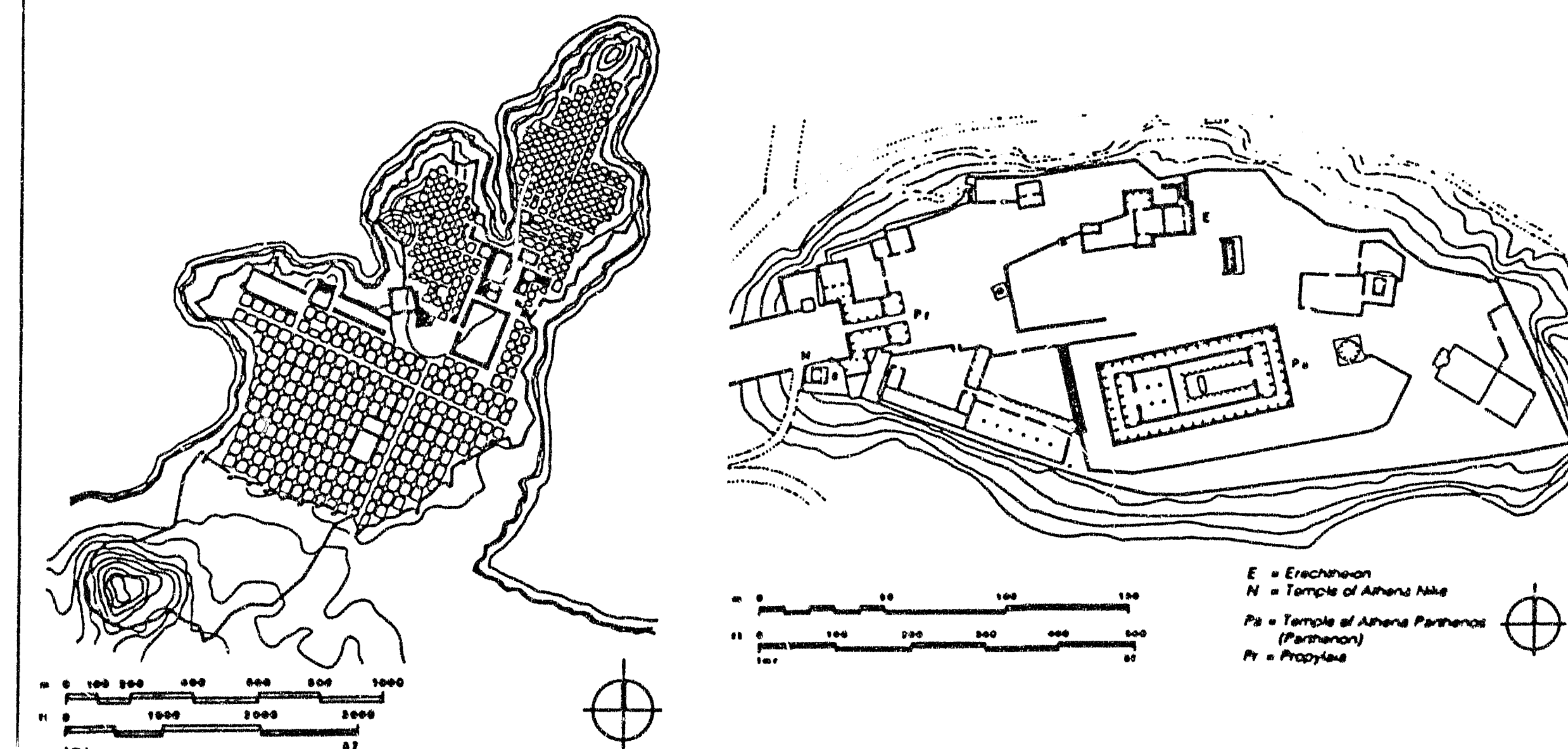


Figure B-5
Plan of Miletus, Source: Roth 1993:192

Figure B-6:
Plan of the Akropolis,
Source: Roth, 1993:199

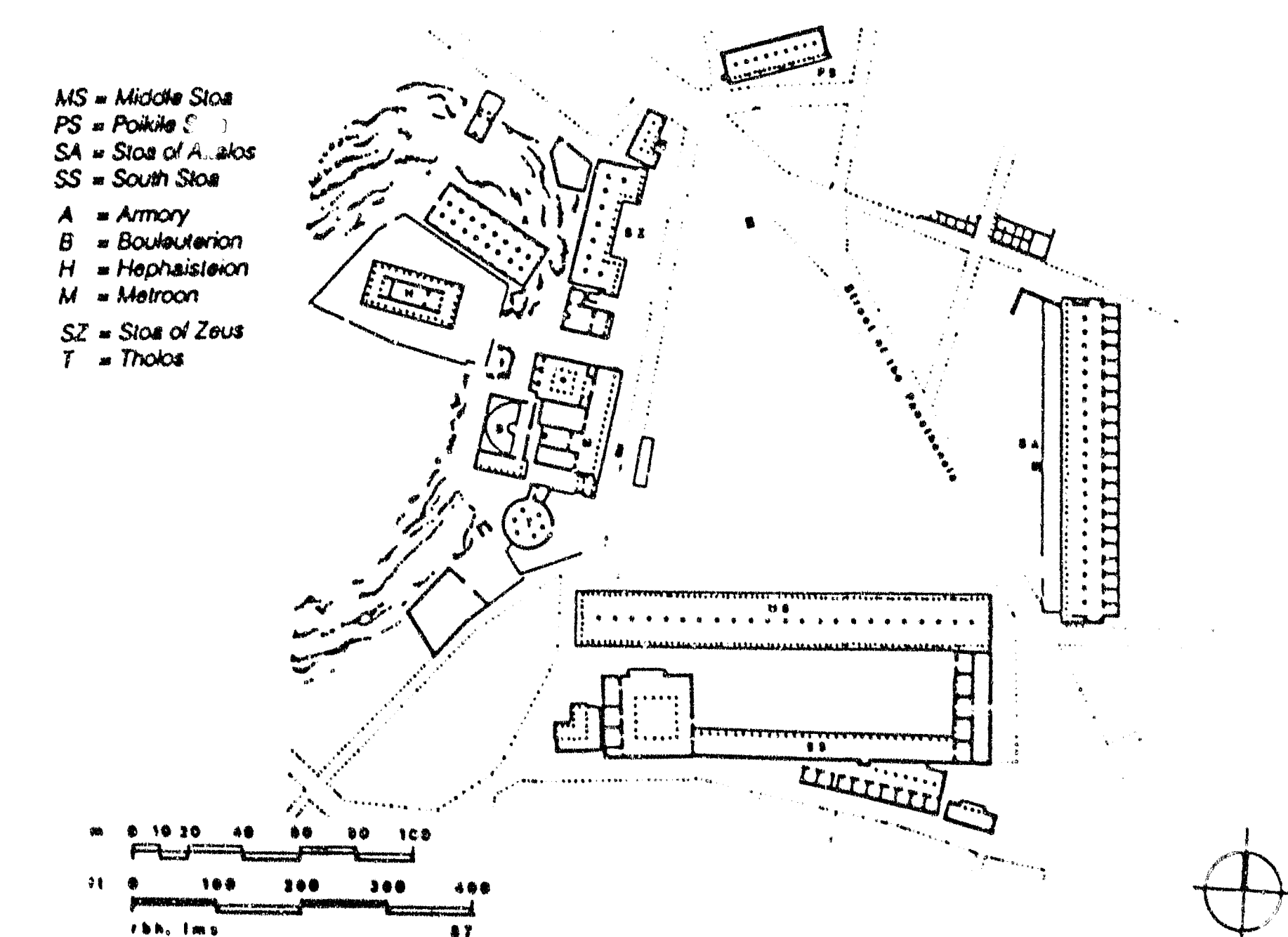


Figure B-7: Plan of the Agora, Source: Roth, 1993:191

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