



HOUSING, CITY PLANNING AND ENVIRONMENTAL MANAGEMENT DEPARTMENT
CITY PLANNING DIVISION – STREETScape MANAGEMENT SECTION

STREETSCAPE DESIGN GUIDELINES

URBAN DESIGN GUIDELINES AIMED AT ENHANCING THE LEGIBILITY, COMFORT, SAFETY, ATTRACTIVENESS AND LIVELINESS OF TSHWANE'S PUBLIC REALM (AN ANNEXURE TO THE POLICY ON THE DESIGN QUALITY OF HARD URBAN SPACES AND STREETSCAPE ELEMENTS IN TSHWANE APPROVED BY THE COUNCIL ON 21 APRIL 2005)

Table of contents

INTRODUCTION	3
Background	5
Basic definitions	8
Streetscape design guiding principles	10
Scope of the document	11
1. HARD URBAN SPACES.....	13
Hard urban space typology	15
Generic guidelines	16
01: Boulevards and civic squares	20
02: Markets	24
03: Roads and traffic circles	27
04: Parking streets and areas.....	29
05: Public transport routes and termini	32
06: Promenades, walks and pedestrian squares	34
07: Play streets and playgrounds.....	36
08: General activity streets and squares	39
09: Specialised activity streets and squares.....	43
10: Residential streets and neighbourhood squares.....	45
Streetscape analysis.....	47
2. STREETScape ELEMENTS	51
Overview	52
Generic guidelines	58
Surfacing materials and patterns	59
Seating facilities (benches).....	61
Litter receptacles.....	63
Bus and taxi shelters.....	65
Ablution facilities.....	67
Street name signs.....	70
Suburb name signs.....	72
Outdoor advertising structures	73

INTRODUCTION



One of many left-over, purposeless and meaningless spaces



Endless barren streetscapes created by low cost housing projects



Harsh streetscape of walls and electric fencing



Streetscape dominated by walls and barbed wire



Parked cars constituting the public-private interface



Sidewalks are seldom paved, particularly in suburbs

Background

On 21 April 2005 the Council approved the Policy on the Design of Hard Urban Spaces and Streetscape Element in Tshwane. This Policy was accompanied by a set of guidelines aimed at enhancing the quality of the public urban environment and public furniture in Tshwane, namely the Streetscape Design Guidelines for Different Types of Hard Urban Spaces.

This document contains a revision and amendment of the Streetscape Design Guidelines for Different Types of Hard Urban Spaces, now named simply "Streetscape Design Guidelines".

The approach that has been adopted in the compilation of this document is based on the conviction that the public urban environment plays an important role in the social and economic life of the city and its inhabitants.

The majority of the city's public urban spaces are, however, still regarded merely as road reserves, ie motor vehicle and service conduits. Consequently, they are often designed in a way that other activities, such as strolling, sightseeing, enjoying refreshments, people watching, busking, window shopping and trading, become unpleasant or, in extreme cases, even impossible.

Furthermore, the public urban environment has traditionally been created by means of the numerous unconstrained, uncoordinated, and often independently undertaken, activities of different municipal departments and divisions, as well as some non-municipal entities. For example, a city street is normally shaped, landscaped and furnished as follows:

- The street's basic (three-dimensional) form and overall character are determined by the City Planning Division, which uses the applicable town-planning scheme, site development plans and building plans to control the type of buildings that are built on the abutting properties, their setbacks from the street boundaries, their use and their appearance.
- The City Planning Division also controls the position and appearance of the advertisements and outdoor advertising structures that may be placed within the street space.
- The Roads and Stormwater Division controls the road geometry, ie the position, layout and dimension of roadways, kerbs, sidewalks, stormwater drains and catch pits, as well as the position and

appearance of a variety of traffic signs, traffic signals and other traffic regulation devices.

- The Roads and Stormwater Division also approves wayleave applications, ie applications for any works within the road reserve (but mostly from a traffic safety and engineering services point of view).
- The Public Transport Division decides on the position and appearance of bus shelters and other bus and taxi facilities.
- The Environmental Management Division plants trees along the street and decides on the position and appearance of litter receptacles.
- The Energy and Electricity Department places street lights, overhead power lines, substations, transformers, distribution boxes and other electrical installations on, adjacent to or above the sidewalks.
- The Water and Sanitation Division is responsible for placing hydrants and water meters on or adjacent to the sidewalks.
- The Tshwane Metropolitan Police Department controls the position and appearance of parking meters, CCTV cameras and other devices aimed at ensuring safety and security and enforcing the law.
- The Local Economic Development Division controls the demarcation of street trading areas, as well as the position and appearance of trader stalls.
- The Post Office places post collection boxes.
- Telkom is responsible for placing telephone booths.

Occasionally these entities do coordinate and synchronise their activities, but mostly they compete with one another for status, space and funding, thereby unintentionally yet effectively undermining one another's efforts and ultimately damaging the quality and potential of the public environment.

No one takes overall responsibility for the public urban space, particularly in terms of its multifunctionality, people-friendliness and attractiveness. Streetscape elements, such as public utilities and amenities, are therefore often arbitrarily placed and bear no relationship to one another in terms of both their placing and design. All of this of course affects the city's image, its liveability, its tourism potential, investor confidence and the satisfaction of its residents.



An exposed water meter in the path of pedestrians



Makeshift streetscape elements are occasionally made use of



A sign blocking the view of a landmark building



Streetscape elements are often cluttered



Unnecessarily duplicated street name signs create clutter



Three different litter bins are unnecessarily placed next to each other

Tshwane, in its striving to become the leading international African capital city of excellence, deserves more than the current mediocre streetscape with its uncoordinated, badly placed, cluttered and poorly designed public utilities and amenities.

These streetscape design guidelines are informed by the following:

- *The Development Facilitation Act, 1995* (Act 67 of 1995), and the *Manual on the Chapter 1 Principles of the Development Facilitation Act*, National Development and Planning Commission, February 1999
- *Guidelines for Human Settlement Planning and Design*, CSIR (Building and Construction Technology), 2000
- *Environmental Design for Safer Communities in South Africa*, CSIR (Building Technology) and Institute for Security Studies, 1998
- *Tshwane's City Strategy*, Final Report, September 2004
- *Metropolitan Spatial Development Framework for the City of Tshwane*, July 2005
- *Tshwane Open Space Framework*, November 2005
- *Tshwane Integrated Environmental Policy*, January 2005
- *Guidelines for Environmentally Friendly General Facilities in the City of Tshwane*, February 2005.

The National Development and Planning Commission in a document titled *Resource Document on the Chapter 1 Principles of the Development Facilitation Act 1995*, published in February 1999, proposed that the following new land development principle be added to those already contained in the Act: "Promote a cohesive, integrated public spatial environment". The Commission argues that "the quality of the public spatial environment is central to the quality of settlements at large. When the public spatial environment is positively defined and well-made, the quality of the settlement is assured, regardless of the quality of individual buildings. It is this space which gives a sense of investment confidence and permanence to environments. Conversely, when the spatial environment is ill-defined and poor, the environment will remain negative, regardless of how much is invested in individual buildings. All public space should therefore be seen as having a social and environmental function, and should be made accordingly." (1999: 46)

These guidelines directly support three of the seven focus areas of the **City Strategy**, namely –

- developing the north;
- maintaining existing urban areas; and
- celebrating the capital.

With its primary focus being on developing the north, the City Strategy requires that high-quality public spaces be created at strategic nodes. It is also implied that a quality urban environment within already established urban areas (in the south and southeast) will stimulate economic development. Lastly, a variety of high-quality public spaces, referred to in the City Strategy as spaces of reflection and celebration, are required to celebrate the city as the national capital. While the focus would be on developing the north, it is reiterated that all previously disadvantaged areas would be attended to.

One of the overall objectives of the **Metropolitan Spatial Development Framework** is to create a liveable and stimulating city with a positive image. This objective, coupled with the proposed capital core and urban core concepts, is a strongly stated requirement for an exceptional public urban environment.

The **Tshwane Open Space Framework** is relevant to these guidelines, as hard urban spaces are important elements of the metropolitan open space system.

With regard to the **Tshwane Integrated Environmental Policy** there are a number of policy principles, issues and objectives that either impact or depend on the quality of Tshwane's urban spaces. These include (to mention just a few) –

- ensuring sustainable development;
- maintaining ecological integrity and minimising negative environmental impacts;
- reducing the ecological footprint of the city;
- creating a healthy environment for all people residing in Tshwane;
- creating public facilities, spaces and amenities that enhance the viability of residential areas and promote integrated community development;
- promoting a clean, healthy, safe and efficient living environment that takes communities, their needs and the surrounding environment into account; and
- ensuring the management of existing open spaces and the development of new areas in order to promote a healthy sense of place.

Basic definitions

Public urban space

Public urban spaces are all external or internal spaces accessible to the general public without control or restriction, regardless of ownership. Malls, arcades, streets, avenues, boulevards, squares, parks and promenades are examples. Public urban spaces, especially hard urban spaces, are often spatially defined by the adjacent man-made structures and natural features. Their character is further determined by a variety of streetscape elements and by the activities that take place within the space and on the adjacent properties.

Communal urban space

While public urban spaces are accessible to all, communal urban spaces (which are also referred to as semi-public urban spaces) are accessible only to specific, well-defined, heterogeneous groups of people and their visitors. These include communal spaces within large office parks or group housing schemes. Spaces used exclusively by smaller and homogeneous groups of people (such as individual families; circles of friends; religious congregations; social clubs; and political, business or other organisations) are private spaces and should not be referred to as communal.

Hard urban space

Hard urban spaces are built (ie constructed, paved, etc) and often spatially well-defined public and communal urban spaces that are meant to accommodate people on foot, either exclusively or together with people in motor vehicles. They include the following:

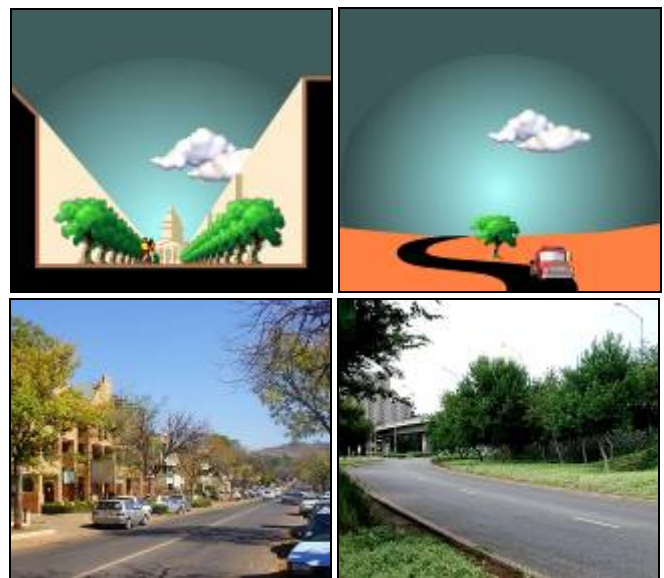
- Mixed-mode streets (streets that are open to vehicular traffic, but also accommodate non-motorised users and a variety of their social and economic activities);
- pedestrian streets, malls and arcades;
- squares/plazas;
- markets;
- parking areas that are occasionally used for other purposes; and
- public urban spaces associated with public transport facilities (such as stops and stations).

Soft urban space

Soft urban spaces include parks, recreational areas and other unbuilt spaces with predominantly vegetated or porous surfaces.

Street vs. road

Streets are three-dimensional spaces, while roads are two-dimensional vehicular facilities. The spatial definition and functional complexity of streets differentiate them from roads.



A street and a road

Streets are spatially defined by means of surrounding buildings, boundary features (such as fences, hedges and walls) and trees. Their functions include –

- providing access to properties, facilities and amenities;
- accommodating public facilities and amenities (eg public toilets, telephone booths, drinking fountains, benches, etc.);
- enabling the movement of people (both on foot and on wheels), as well as the transport and delivery of goods;
- providing space for the parking of vehicles;
- providing physical setup for leisure and cultural activities (such as strolling, congregating, playing,

people watching, window shopping, sitting and relaxing, eating and drinking, as well as ceremonies and parades, art performances and exhibitions);

- providing space for trading shopping and advertising.

Roads' only function is to enable vehicular movement. Spatial definition of a road is of no consequence.

Streets are only found within human settlements (where their spatial definition and functional complexity can be achieved), while roads can be found anywhere – within, as well as between settlements.

Spatial definition

Spatial definition is a conscious process of form-giving to an otherwise amorphous, formless space. This includes the provision of edges, giving dimensions (ie width, length and height), as well as ensuring scale, proportions and other spatial qualities.

Streetscape element

Streetscape elements are all those functional and decorative elements that are placed, laid, erected, planted or suspended within a public or communal urban space. They include public utilities and amenities,

visible elements of service infrastructure, street lights, traffic signs and signals, street trees and other horticultural elements, general public furniture, advertising signs and decorations. A tabular overview of streetscape elements is given on page 52.

General activity

General activities are those activities that bring about or depend on spatial qualities such as vitality, vibrancy, convenience, attractiveness, identity and uniqueness. They include socialising, shopping, attending shows and performances, entertainment, sightseeing, enjoying food and drinks and engaging in other forms of economic and social interaction. These activities involve the public at large on a daily basis.

Specialised activity

Specialised activities involve either only segments of the general public or the general public at large, but only on specific occasions. They include activities such as office work, specialised services, manufacturing, warehousing, trading, mining, agriculture, research, education, sport and recreation.

Streetscape design guiding principles

Streetscape design in Tshwane should be guided by four simple basic principles (or urban design values), namely (1) legibility, (2) comfort and safety, (3) attractiveness and (4) liveliness.

Legibility

The design of each hard urban space must ensure and enhance the legibility of the city. Legibility is a characteristic whereby a city is easily understood by residents and visitors and allows them to move about in the city with ease. In legible cities, places that are important look important and are therefore easily found and differentiated from those less important. Important streets and squares must therefore look important – they must be surrounded by stately buildings and lined by tall trees, must have wide roadways and sidewalks, special street furniture and ample light at night.

Comfort and safety

Each hard urban space must be functional. This means that it must be responsive to the needs and expectations of all its users, motorised and non-motorised alike. In other words, it has to be designed and equipped (furnished) for comfort and safety of all: pedestrians, drivers, strollers, street café patrons,

shoppers, street vendors, buskers, sightseers, joggers, etc.

Attractiveness

Hard urban spaces and all streetscape elements within them must be aesthetically pleasing. If Tshwane is serious about its aspiration to become an internationally acclaimed city of excellence, its streetscape and streetscape elements must conform to the highest international urban design, landscaping, graphic design and industrial design standards.

Liveliness

Hard urban spaces must not function as mere movement and infrastructure corridors. Depending on their role in a broader urban context, they must be designed as lively spaces where people can see other people and be seen, where they can meet and interact. Social life of the city should not be confined to formal institutions and venues (such as churches, sports arenas, clubs and theatres) and privately owned shopping malls. The image of the city and its attractiveness to visitors to a large extent depend on its street life.

Scope of the document

This document is divided into two functional sections addressing –

1. Hard urban spaces; and
2. Streetscape elements.

Section 1: Hard urban spaces

This section addresses both public and communal hard urban spaces. It identifies different types of these spaces and, for each identified type –

- formulates streetscape design guidelines;
- formulates guidelines for the design of the interface between these spaces and surrounding sites (which are in most cases privately owned); and
- indicates an approximate cost of streetscaping (based on a generic, conceptual design).

Streetscaping guidelines

These guidelines are aimed primarily at –

- municipal engineers (civil, electrical, transport and other), town planners, architects, landscape architects and horticulturists who are involved in the design, construction and maintenance of public urban spaces; and
- private sector developers whose development schemes include public or communal urban spaces.

They are grouped into the following categories:

- Layout
- Surfacing
- Landscaping
- Lighting
- Public furniture
- Service infrastructure
- Signage
- Advertising

Guidelines for the public-private space interface

These guidelines are aimed primarily at –

- the municipal town planners involved in the land-use management processes who have to ensure that the requirements are appropriately incorporated into the applicable town-planning scheme and its amendments;
- the private sector developers whose development proposals must comply with these guidelines; and
- the municipal officials who evaluate site and landscape development plans.

They are grouped as follows:

- Land use
- Structures
- Edge treatment
- Landscaping

Streetscaping costs

The costs indicated in this document are only approximate and intended for project planning purposes. More detailed cost estimates for different types of hard urban spaces are contained in a separate document titled Streetscape Cost Estimate (Landscape Architects Uys & White for CTMM, August 2006).

These costs have been determined on the basis of generic, conceptual designs (which are, for reference purposes, included in this document).

The costs of streetscaping, as summarised in this document, include the costs of –

- hard landscaping (surfacing of pedestrian areas);
- soft landscaping (planting);
- public amenities (public furniture, objects of art, symbols, decorations, informational and directional signage); as well as
- related contingencies, preliminary and general charges and professional fees.

The costs of structures within streetscape (such as bus shelters, ablution facilities, canopies, etc.) are expressed separately.

Streetscaping costs do not include the costs of constructing roadways and service infrastructure.

Streetscape analysis

This section contains a checklist for the evaluation of existing hard urban spaces and the identification of deficiencies or problems that have to be rectified.

Section 2: Streetscape elements

This section firstly lists and classifies streetscape elements in a tabular format. The reason for the inclusion of this overview of streetscape elements in the document is the need –

- to indicate what is possible to have (or what may be needed by the general public) within the city streets, squares and other hard urban spaces;
- to show that the role of each streetscape element stretches beyond its mere functionality; as well as
- to clarify responsibilities in terms of the control, provision and maintenance of each particular streetscape element.

This section also contains generic, as well as specific, guidelines for the design of streetscape elements.

In respect of certain streetscape elements (ie benches, litter receptacles, street and suburb name signs) the specific design guidelines take form of actual designs.

The designs for benches and litter receptacles are only the preferred ones which can coexist with any other designs justifiable in terms of the local urban design character, ambience, theme and other circumstances.

This section is still work in progress and ultimately it will include design guidelines for all types of streetscape elements.



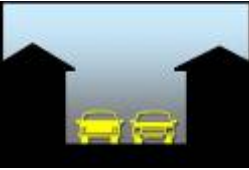







General remarks

The guidelines in this document have not been drafted with the intention of interfering with any existing, sector-specific technical requirements or standards which warrant legally, functionally and technically sound design proposals. Their purpose is to ensure that these technical requirements and standards are met and applied with due regard to the sound principles of urban design, ie enhancing the appearance (aesthetic qualities) and pedestrian-friendliness of hard urban spaces.

In order to ensure compliance with these guidelines, some existing practices and policies with regard to the placing and design of various streetscape elements may, however, have to be changed.

All new streetscape elements should be designed and placed in accordance with these guidelines. All existing elements that do not comply with these guidelines and that may be costly and unpractical to replace in the short term should be relocated or be neatly concealed and be gradually replaced as they become due for repair or replacement or as funds become available.

1. HARD URBAN SPACES

CATEGORY	HARD URBAN SPACE TYPE DETERMINANTS		LINEAR SPACES (SPINES, CORRIDORS)	NODAL SPACES (NODES)	PAGE	
01	CITY STRUCTURING		BOULEVARD	CIVIC SQUARE	20	
02	ACTIVITY WITHIN THE SPACE	GENERAL ACTIVITY		MARKET STREET	MARKET SQUARE	24
03		VEHICULAR MOVEMENT		ROAD	TRAFFIC CIRCLE	27
04		PARKING		PARKING STREET	PARKING AREA	29
05		PUBLIC TRANSPORT		PUBLIC TRANSPORT ROUTE	PUBLIC TRANSPORT TERMINUS / RANK	32
06		WALKING, STROLLING AND GATHERING		PROMENADE / WALK	PEDESTRIAN SQUARE	34
07		RECREATION		PLAY STREET	PLAYGROUND	36
08		ACTIVITY ON THE PERIMETER	GENERAL ACTIVITY		GENERAL ACTIVITY STREET	GENERAL ACTIVITY SQUARE
09	SPECIALISED ACTIVITY			SPECIALISED ACTIVITY STREET	SPECIALISED ACTIVITY SQUARE	43
10	DWELLING			RESIDENTIAL STREET	NEIGHBOURHOOD SQUARE	45

Hard urban space typology

Hard urban spaces can be classified in many different ways, for example in terms of –

- their physical characteristics (spatially well-defined or amorphous; linear or nodal; wide or narrow; long or short; straight or winding; levelled or inclined; small or large; rectangular, polygonal or circular);
- their location and relationship to other natural or man-made features within the city (between buildings – streets; through buildings – arcades; against slopes affording vistas – belvederes; on river banks or on sea or lake shores – waterfronts);
- their ambience or atmosphere (cosy or spacious; tranquil or busy; cheerful or formal; grandiose or simple; pleasant or unpleasant; common or unique);
- their contribution to or deterrence of criminal activities;
- the role they play in structuring the city (Some streets or squares are important elements of consciously established patterns of urban spaces, purposely designed with the aim of enhancing the legibility of the city, ensuring its monumentality, emphasising certain symbolic features, affording or framing important vistas, etc.);
- their primary function, ie the activities that take place within them (roads, drives, pedestrian streets, parking lots, markets, etc);
- the activities that take place on adjoining sites and in bordering buildings (shopping streets, residential streets, office streets, industrial streets, etc).

However, the following three determinants of the type of hard urban space seem to be the most relevant in formulating streetscape design guidelines:

- City structuring and symbolism (where the streetscape design guidelines will be aimed at strengthening the city structuring role, dignity, monumentality, symbolism and capital city image of the space).
- Activities within the space (where the streetscape design guidelines must ensure that sufficient, appropriately designed and conveniently placed

public amenities, utilities and facilities are provided to make these activities possible). These activities include general activities (see the definition on page 9), vehicular movement, parking, public transport, walking, strolling, gathering and recreation.

- Activities on the perimeter of the space (where the streetscape design guidelines will be aimed at supporting and complementing the use of surrounding buildings and sites). These activities may be general activities, specialised activities (see the definition on page 9) or dwelling.

A simplified matrix, presented on the opposite page, is therefore proposed – with the understanding that each urban space can (and most probably does) fall into more than one category.

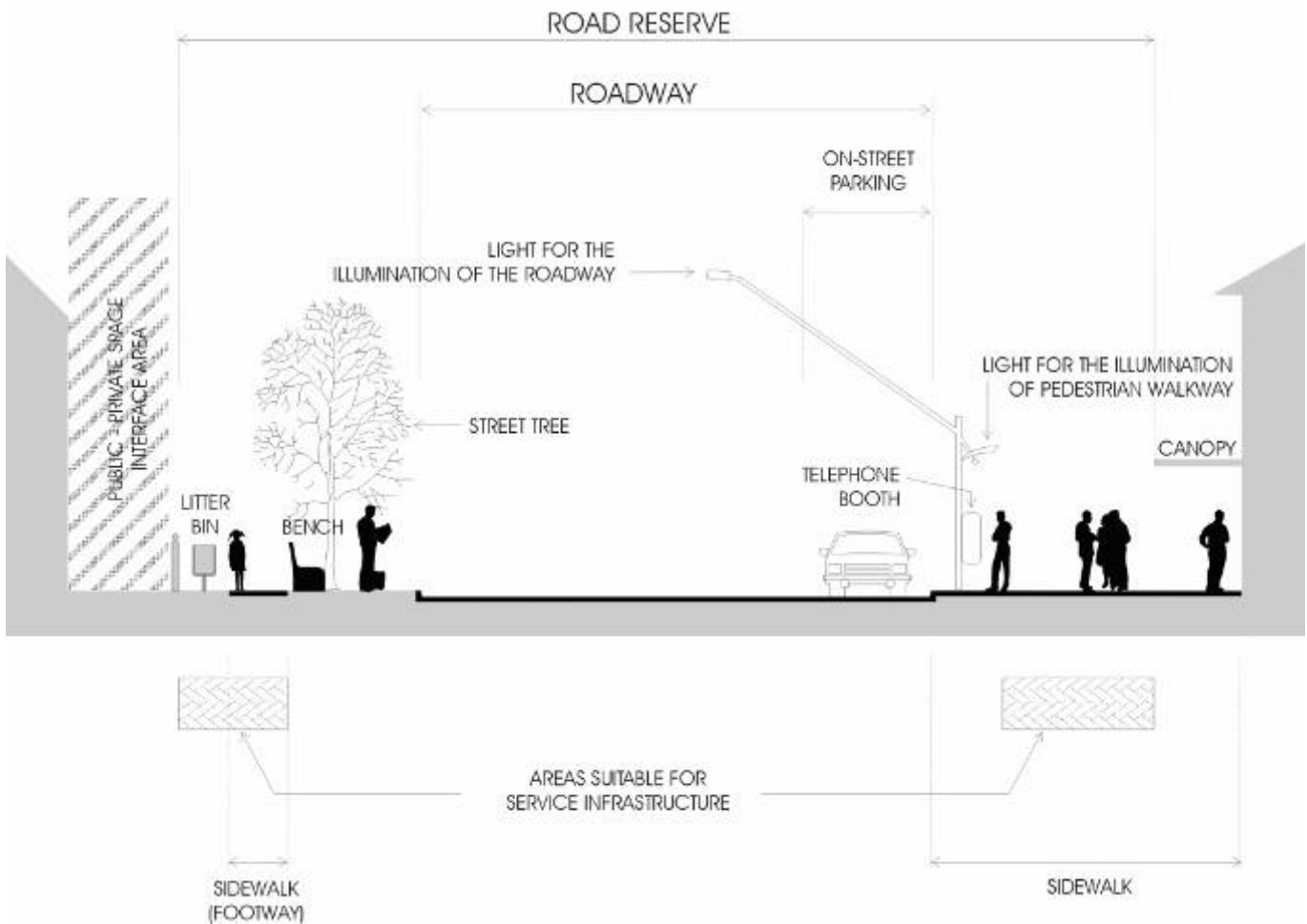
In accordance with this matrix there are 10 categories in which hard urban spaces can fall, namely

1. boulevards and civic squares;
2. market streets and market squares;
3. roads and traffic circles;
4. parking streets and parking areas;
5. public transport routes and termini;
6. promenades/walks and pedestrian squares;
7. play streets and playgrounds;
8. general activity streets and squares;
9. specialised activity streets and squares; and
10. residential streets and neighbourhood squares.

It must be noted that the same categorisation applies to both linear spaces (such as streets) and nodal spaces (such as squares).

Every hard urban space has to comply with the streetscape design guidelines set for each category into which it falls. For example, Church Street between Church Square and Prinsloo Street has to comply with the guidelines set for all of the following: boulevards, markets, walkways and general activity streets. Church Square must meet requirements for civic squares, parking areas and pedestrian squares.

Generic guidelines



The following are general streetscape design guidelines that apply to all types of hard urban spaces within Tshwane:

Streetscaping guidelines

Layout

All hard urban spaces within Tshwane must allow for safe and convenient pedestrian movement and all other permissible pedestrian activities that normally take place within such spaces.

Along residential streets and streets leading to major elements of the green open space system, provision should be made for convenient and safe cycling.

All roads/streets (with the exception of quiet residential streets that have negligible amounts of vehicular traffic and where the mixing of pedestrian and vehicular movement can pose no danger) must have a walkway on each side. The minimum width of a walkway is 1,3m. All walkways must be free of any obstacles to the movement of pedestrians (ie obstacles that reduce a walkway's width, cause inconvenience or pose a danger).

Vertical kerbs or bollards must be used to prevent vehicles from intruding onto pedestrian areas, unless there are specific, justifiable reasons for allowing vehicular access onto the pedestrian areas.

The maximum gradient of footpaths is 1:12.

All pedestrian crossings must be clearly marked.

Provision must be made for disabled people at all pedestrian crossings.

Surfacing

All walkways and other pedestrian areas must have a surface that is dust- and mud-free, well drained and otherwise suitable for safe and comfortable walking.

The use of a limited range of standard paving materials is encouraged, as this facilitates maintenance and repairs and ensures neater walking surfaces in the long term. In this regard see the design guidelines for surfacing materials and patterns on page 62.

Where required or appropriate, paving materials must be creatively combined in different ways in order to achieve a variety of patterns and textures.

All paved surfaces must be robust, durable and maintenance-free.

Wherever possible, paving must be permeable to minimise urban run-off.

Paving around streetscape elements (eg poles) must be finished off neatly (ie with in situ concrete rather than with patches of small, irregular paving block fragments).

Landscaping

The landscaping of hard urban spaces must create acceptable living and working public environments. It must also contribute to greening the city and enhancing the capital city's image.

The landscaping must therefore adhere to the following general guidelines and principles:

- Indigenous plants must be used wherever possible.
- No declared invader plant, as defined in the Conservation of Agricultural Resources Act of 1983, may be planted.
- Planting must be used to provide focal points, character, screening, softening and shade.
- Paved areas must be minimised, while planting opportunities must be maximised.
- Evergreen trees must be used to provide shade, while deciduous trees must be used for seasonal change.
- Shrubs and trees must be placed in such a manner that they do not provide hiding places for criminal elements or create visual obstructions.
- In smaller and isolated areas, ground covers must be used instead of grass.

- Scrambler shrubs (eg *Plumbago capensis* or *Tecomaria capensis*) must be used as ground cover for large areas.
- Where applicable, efficient erosion control systems must be in place in order to minimise the loss of top soil.
- Appropriate irrigation technologies aimed at reducing water consumption and the unnecessary wastage of water must be investigated and be applied.
- Bare walls (eg private garden walls in group housing schemes) must be softened with planting.

Where hard urban spaces cannot be spatially defined by means of surrounding buildings, landscaping elements (eg trees) must provide the desired spatial definition.

Lighting

All pedestrian areas must be lit at night.

Lighting should also be used decoratively to highlight landscaping elements and important buildings.

Appropriate energy-efficient lighting technologies should be investigated and be applied.

The lighting of public urban spaces must not cause or contribute to light pollution.

Public furniture

All public furniture must be designed and placed in a way that enhances the desired character of the space.

All public furniture must be placed in a coordinated manner. Logical and aesthetically pleasing spatial relationships (based on concepts such as alignment, symmetry, regular spacing, parallelism, perpendicularity, etc.) must be established among different pieces of public furniture, as well as among public furniture, paving patterns, surrounding building facades and all other spatial (physical) elements coexisting within the same hard urban space. The arbitrary placing and cluttering of elements must be avoided.

The design and appearance of public furniture in general, but particularly within the same urban space, must be well coordinated.

All public furniture must be placed in a way that it does not provide cover or hiding places for criminal elements.

Decorative water features must be designed in such a way that they cannot be used for washing vehicles or laundry or for bathing.

Whenever possible, different elements of public furniture must be combined to enhance overall convenience, security and appearance; to facilitate maintenance; and to prevent cluttering.

Service infrastructure

All above-ground elements of service infrastructure within a hard urban space (transformer boxes, overhead power lines, water meters, etc) must be designed and placed in such a manner that they are not visually, aesthetically, ecologically or in any other way detrimental to the space and its users. They must also be as unobtrusive as possible. If their visibility cannot be avoided (ie if it can be justified), these elements have to be carefully coordinated with other streetscape elements in terms of placing and design.

Elements of service infrastructure must be designed and protected in such a way that they cannot be accessed/opened by unauthorised persons, be used as shelter or storage or be used for any purpose other than their original function (eg stormwater catch pits along Church Street, which are sometimes used by street vendors as storage).

Signage

Visible and consistent directional and informational signage must provide essential information for the public. All important signs (ie those that can assist people in finding their way or seeking help) must be visible at night. All directional and informational signage must be uniform to provide a unique character in a particular precinct.

Signs must not block the view of or the view from adjacent buildings and must not be excessive in size and number. Traffic signs and signals must be carefully placed in a way that they do not cause or contribute to chaos and clutter.

Advertising

All advertising within a hard urban space must comply with the Outdoor Advertising By-laws and any other applicable municipal by-law, policy, plan or framework (eg the Tshwane Open Space Framework). It must not detract from the ambience and character of the space and therefore it should not be allowed in areas of particular architectural, urban design or scenic beauty.

Advertising structures must be designed to fit in with the public furniture in the space. It must not

- be visually intrusive;
- compromise any important views and vistas;
- contribute to the fragmentation of the space;

- in any way impact on the existing street trees;
- impact on pedestrian movement and safety; and
- cause or contribute to light pollution.

Guidelines for the public-private space interface

Structures

Any new development must be in line with the existing or planned character and ambience of the broader environment within which it is taking place.

All buildings at prominent locations and along important routes must be of good-quality contemporary architecture. Poor, indifferent, kitsch, ready-made or retrogressive (historically imitative) architecture should not be allowed in these locations.

The largest and/or the most important buildings should be located in association with the most important and prominent squares and streets.

Wherever possible, buildings must actively contribute to the spatial definition of hard urban spaces and to their attractiveness. The back façades or building services must not face a public urban space. Buildings with public facilities, amenities and services must be concentrated adjacent to public urban spaces.

Edge treatment

Continuous, monotonous or bare boundary walls must be avoided or at least be softened with planting or be architecturally articulated and alternated with see-through sections (eg palisade fencing). The see-through sections must constitute at least 50% of the total length of the protected boundary. This requirement is aimed at improving both the appearance and safety of the public space.

Landscaping

The landscaping of properties adjacent to public and communal urban spaces must contribute to the quality of those spaces and must complement their overall design.

The landscaping of all properties must adhere to the following general design guidelines and principles:

- Indigenous plants must be used wherever possible.
- Within a distance of 2 km from a watercourse or any other important ecological feature, at least 80% of the plant species used for landscaping must be indigenous.

- No declared invader plants, as defined in the Conservation of Agricultural Resources Act of 1983, may be planted.
- Planting must be used to provide focal points, character, screening, softening and shade.
- Paved areas, particularly in parking/garage courts, must be minimised, while planting opportunities must be maximised.
- Evergreen trees must be used to provide shade (particularly for parking areas and areas adjacent to garages), while deciduous trees should be used for seasonal change.
- One tree must be provided for every two parking bays.
- Shrubs must be grouped to provide screening.
- Dense shrubbery must be avoided for security reasons.
- Ground covers must be used instead of grass in small isolated areas (eg between garden screen walls and driveways).
- Scrambler shrubs (eg *Plumbago capensis* or *Tecomaria capensis*) must be used as ground cover for large areas.
- Thorn trees must be avoided in areas where children play or ride bicycles.
- Bare walls (eg private garden walls in group housing schemes) must be softened with planting.
- Sufficient space must be provided between driveways and garden walls to allow for the growth of the trunks of trees (minimum of 1,5 m).
- Garden walls, as well as planting space for trees and other plants, must be articulated and be made interesting by designing the walls with step backs, alcoves and corner cut-offs.

01: Boulevards and civic squares



These spaces are, or should be, the highest-order structuring elements of the city and, just as they dominate the city's layout, they should also be prominent in terms of their road geometry, width, the height of the surrounding buildings, the surrounding land uses, the quality of the streetscape elements, the landscaping and the decorations.

- ensure monumentality;
- afford or frame important vistas;
- reinforce the capital city image; and
- invoke a feeling of urbanity.

Boulevards and civic squares must be identified or determined by spatial development frameworks.



Boulevards normally form visual and physical links between other higher-order city structuring elements, such as important functional nodes and public urban spaces (eg squares, parks and other boulevards), as well as important buildings and other landmarks.

In order to enhance the legibility of the city or to create a sense of place, spatial development frameworks may propose certain themes for different boulevards and civic squares. In these cases all public furniture, landscaping, paving patterns and other streetscape elements must reflect and support the particular theme.

The design of boulevards and civic squares must be guided by the following streetscape design guidelines:

Streetscaping guidelines

Layout

The alignment and road geometry of a boulevard must contribute to the boulevard's urbanity and monumentality and enhance any vista that it may afford. Boulevards should therefore preferably be



The layout of Washington, USA, is clearly characterised by a carefully designed system of axes and focal points, ie boulevards and squares (source: National Capital Planning Commission: Extending the Legacy – Planning America's Capital for the 21st Century)

These urban spaces and their streetscaping must –

- ensure the legibility of the city (see the explanation on page 10) and enhance orientation within it;
- create diversity;

straight, long and wide with formal road geometry (unlike freeways and other mobility spines).



Walkways along boulevards must be generous and always be wider than 3,0 m.

Surfacing

Materials and finishes of the best quality must be used. The use of extraordinary (non-standard), even luxury, materials may be considered, depending on the significance of the space.



Paving patterns must be interesting and unique and must contribute to the overall dignity and monumentality of the space. The patterns could bear some symbolic significance or provide historic references. Mosaics or other forms of art may be considered when paving boulevard sidewalks and civic squares.

Landscaping

All boulevards must be lined with at least a single row of trees on each side to form an avenue.



Large paved areas in civic squares must be avoided, unless they are functionally or aesthetically justifiable as part of the design of the space. Paved surfaces must be complemented by high-quality lawns and/or gardens, landscaped to strengthen the desirable status, character and ambience of the square.

Lighting

Both vehicular and pedestrian areas within boulevards and civic squares must be well lit. If different types of lights are used to illuminate vehicular and pedestrian areas, they must be coordinated in terms of both placing and appearance. Extraordinary types of light poles, light fittings and other light features may be considered for boulevards and civic squares.

Public furniture

It is recommended that all public furniture placed in boulevards and civic squares (eg bollards, benches and litter receptacles) be treated as public art and reflect local culture and craftsmanship.

Symbolic features, such as statues, monuments, markers, gateway structures, triumphal arches and water features, must be placed at strategic locations within boulevards and civic squares (especially where they are intersected by other important streets) in order to symbolise the values, beliefs and aspirations of the city's inhabitants; to commemorate important historical events and personalities; or to reflect symbols and other cultural characteristics of the South African people.

The use of flags and banners for civic and festive decoration is also encouraged.



Service infrastructure

No elements of service infrastructure (overhead power lines, electrical transformers, water meters, etc) may be exposed. Even those that are neatly concealed within specially made containers, boxes or cases must be avoided. When unavoidable, the placing and design of these containers, boxes and cases must be carefully coordinated with other streetscape elements.

Signage

The design of traffic signs and signals must, wherever possible, be physically combined and integrated with other streetscape elements (eg markers and gateway structures).

Advertising

Outdoor advertising is, in principle, allowed in and around boulevards and civic squares, especially if it provides interest, colour and light, but it must be considered with circumspection and allowed only if it is proven that it will not have a negative impact on the environment. Advertising must not interfere with any symbolic elements, landmarks or vistas.

Structures carrying advertisements must not be pretentious. They must also not pretend to be symbolic urban design features (such as gateways or markers), as this could harm the city's legibility and diminish the value of genuine symbolic features.

Guidelines for the public-private space interface

Land use

Land uses that detract from the desired status, character and ambience of boulevards and civic squares (such as industry, warehouses, panel beaters and spray painters) are not permitted on adjacent sites.

Structures

All buildings along a boulevard or around a civic square must be of exceptionally good architectural quality. Buildings around a civic square should have a minimum height of three stories and should contribute to the spatial definition of the square (by, for example, not being set back far from the property boundary and following a continuous build-to line).

Edge treatment

Parking areas, unless of a limited size and intensively and ingeniously landscaped, may not constitute the interface between a boulevard or civic square and an adjacent property or development site. Parking areas on sites along boulevards and around civic squares should therefore preferably be located behind the buildings, in basements or in central (shared) parking facilities.

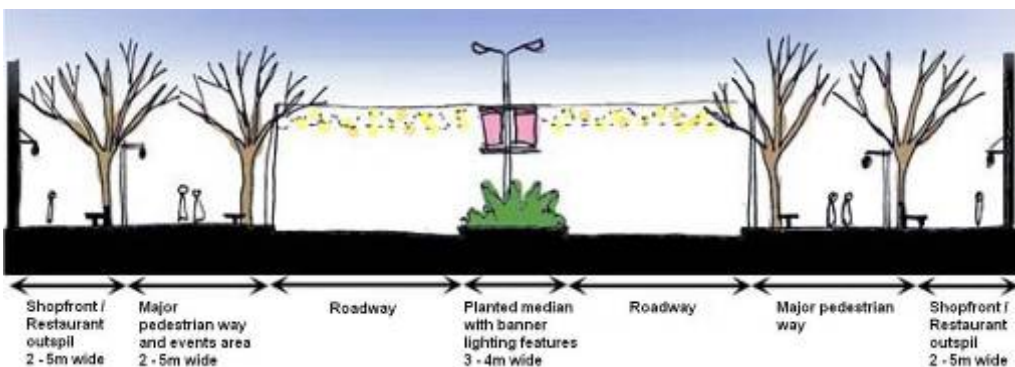
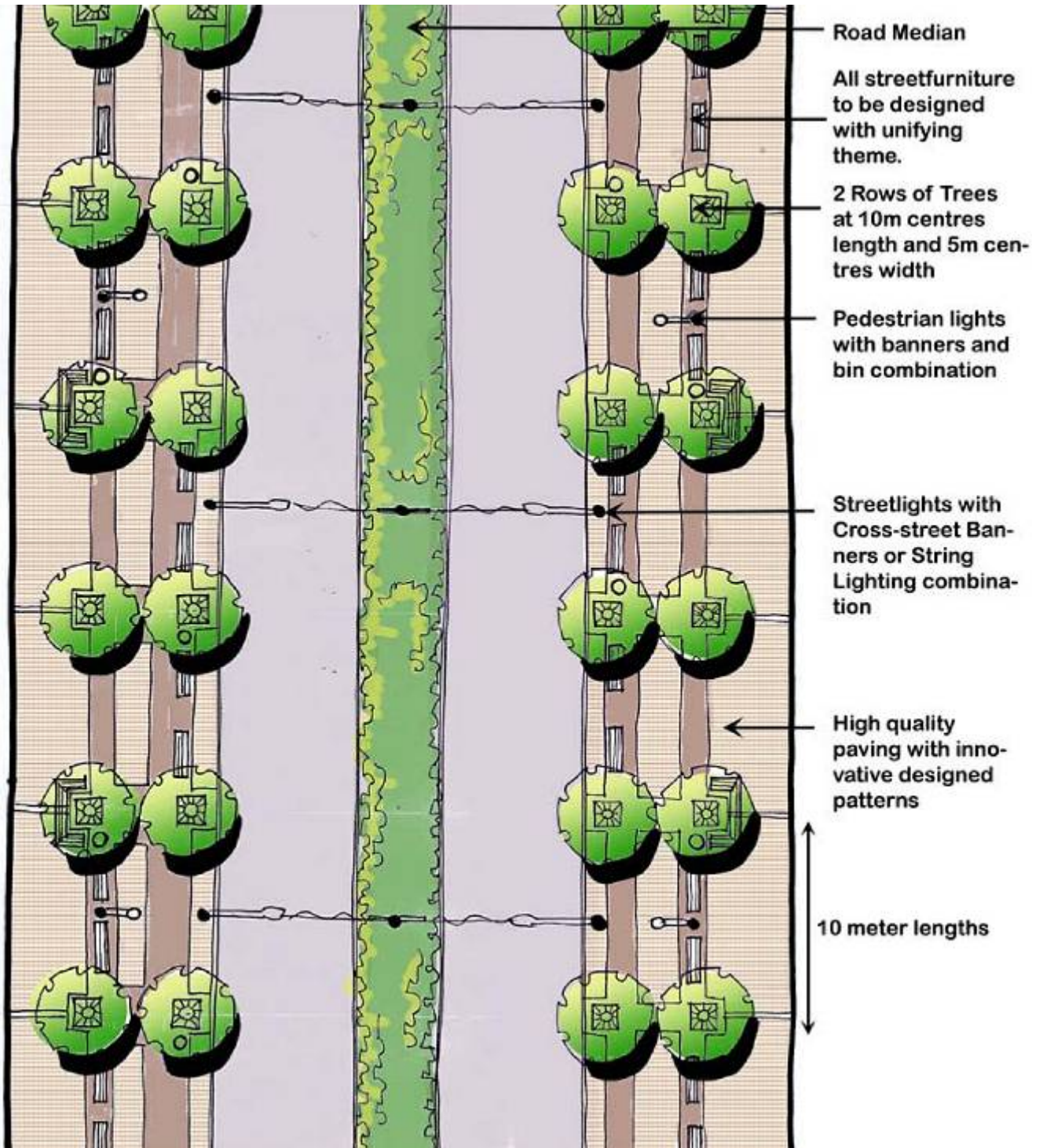
All fences, walls and other structures constituting the immediate interface between a boulevard or civic square and an adjacent property or development site must be of exceptional design quality and be manufactured of high-quality durable materials.

Landscaping

The landscaping of sites adjacent to boulevards and civic squares must contribute to the stately character of these spaces, especially where the buildings cannot, for whatever reason, fulfil that function.

Streetscaping costs

BOULEVARD	R12 000 – R22 000 per 1m length
CIVIC SQUARE	R950 per 1m ²
BANDSTAND	R120 000 per structure
PUBLIC TOILETS	R300 000 per facility



02: Markets



Markets are streets or squares where people gather to buy and sell merchandise. Markets can be permanent or occasional, formal or informal, general (eg flea markets) or specialised (eg fruit and vegetable markets, flower markets or curio markets).

Any hard urban space where goods are bought and sold must be considered a market and be designed in accordance with the following guidelines:

Streetscaping guidelines

Layout

Normal raised walkways/sidewalks should preferably not exist in permanent markets, ie markets must have a single, continuous surface level.

The permeability of markets and the pedestrian routes through them must be ensured and protected.

Vehicular areas must be defined by means of bollards and planters rather than by means of kerbs and differences in surface levels so that people can move freely.

Traders with trolleys must be able to access the markets easily.

Surfacing

Standard paving materials should be used. In markets where perishables are sold, paving materials and textures must allow for easy cleaning (sweeping and hosing down).

Pavements must be articulated by means of simple yet attractive patterns created by using different materials,

colours and textures to avoid monotony. These patterns can also be functional, ie they may be used to demarcate trading areas for individual vendors.

Landscaping

Trees must be planted abundantly to provide shade for vendors and buyers. Even if shade is provided by means of canopies or other types of shelters, trees are still needed to soften the visual impact of the structures.

The areas around trees must be appropriately edged (eg with kerbs or bricks) and be filled with gravel or be covered by metal, concrete or other tree grids. The tree grids must be as vandal-proof as possible and be designed in such a way that the collection of rubbish and cigarette butts inside them is minimised.

A seating facility can be designed to encircle a tree. Planters can also be designed to accommodate seating.

All unpaved surfaces must be appropriately landscaped.

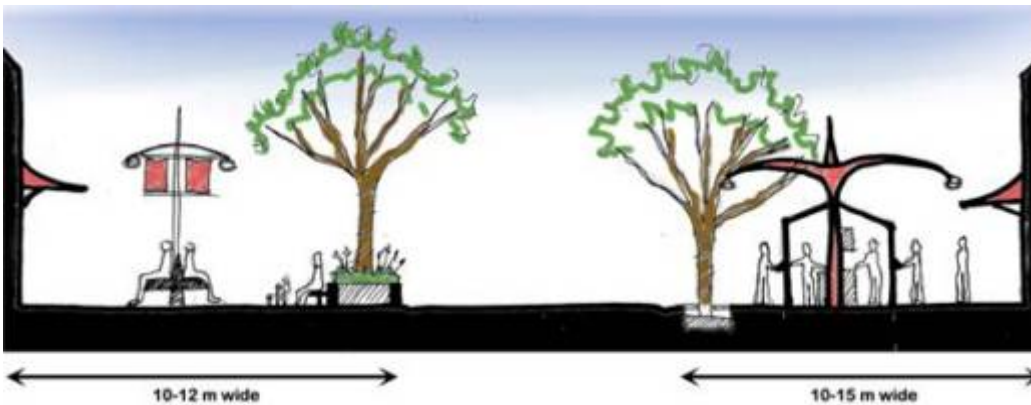
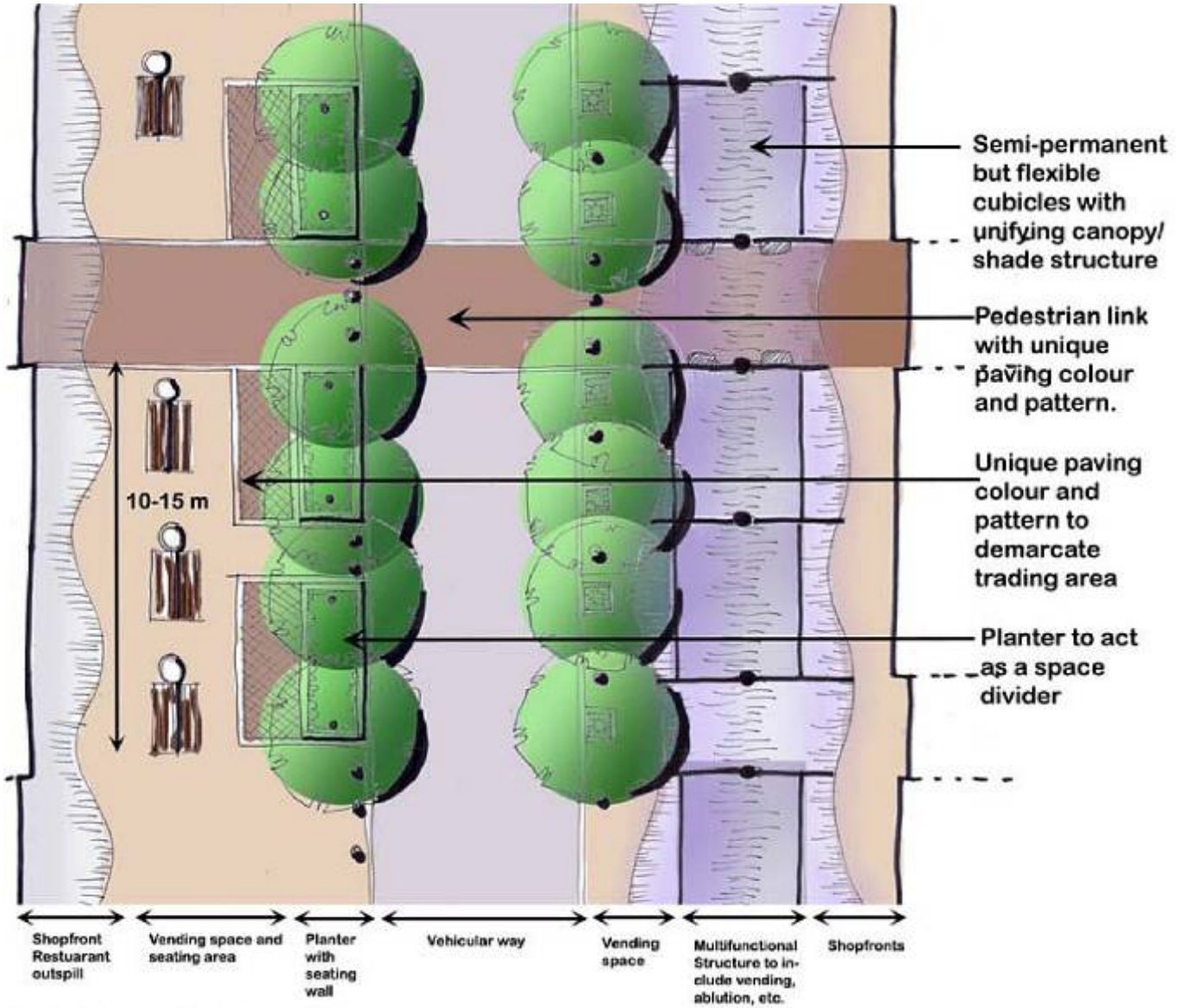
Lighting

Markets must be well lit at night by means of lights purposely designed for pedestrian areas.

Public furniture

The following elements are essential:

- trader stalls or kiosks (depending on the circumstances and other requirements, the stalls may be provided with lockable storage, washbasins and electrical connections with prepaid electricity meters.);
- drinking fountains or multi-purpose water taps;



- seating facilities (which can be provided as stand-alone benches or be integrated with other public furniture and planting);
- litter receptacles;
- public toilet facilities; and
- public telephones.

Stalls for vendors selling perishables (food and food-related products) must be separated from other stalls in order to prevent the contamination of food.

Bollards and planters must be used to define vehicular areas, rather than kerbs and changes in the surface level.

Banner poles with colourful banners can be used to create a cheerful and festive atmosphere.

The provision of public clocks should also be considered within markets.

Service infrastructure

Markets, especially those trading in perishables, must be designed in such a way that they can be hosed down regularly or at least occasionally. Special hydrants (other than fire hydrants) with a metered connection for a hose, installed by the Water and Sanitation Division, must therefore be provided in appropriate locations.

Signage

Various types of informational and directional signage are necessary to inform and orientate the public and to regulate the market.

Advertising

Outdoor advertising is generally allowed in and around markets to capitalise on the large numbers of people and to add to the vibrancy and colourfulness of markets.

Guidelines for the public-private space interface

Land use

Land uses on sites adjacent to markets must complement the markets, ie create opportunities for formal trading activities. This will create synergy, encourage interaction and generate economic expansion.

Structures and edge treatment

Surrounding buildings should preferably be close to the street boundary and have public uses on the ground floor.

Streetscaping costs

MARKET STREET	R6 000 – R12 000 per 1m length
MARKET SQUARE	R900 per 1m ²
CANOPY / SHADE STRUCTURE	R30 000 per structure
KIOSK	R50 000 per kiosk
PUBLIC TOILETS	R300 000 per facility

03: Roads and traffic circles



Spatial development frameworks may propose certain themes for major roads and traffic circles in order to minimise the potentially negative impact of the large tarred areas, to enhance the legibility of the city or to create a sense of place. In these cases all public furniture, landscaping, paving patterns and other streetscape elements within these spaces must reflect and support the particular theme.

Streetscaping guidelines

Layout

All roads must have a walkway on each side of at least the minimum size (ie 1,3m wide). Walkways and other pedestrian areas should be separated from driveways and other vehicular areas by means of landscaped strips or other landscaping features for aesthetic and safety reasons.

Landscaping

All unpaved or non-tarred surfaces must be appropriately landscaped or at least be planted with low-maintenance ground covers.

Central parts of bigger traffic circles must be landscaped, unless they are designed as civic squares, markets or other types of squares.

Through appropriate landscape design, trees and other plants must be used along roads through residential

and other sensitive areas to act as a buffer against noise.

Lighting

The lighting of roads and traffic circles must primarily be lighting that is appropriate for vehicular traffic, but pedestrian areas must also be well lit.

Public furniture

Centres of traffic circles are suitable for the placing of various types of landmarks and decorative or symbolic features (eg statues, markers and water features).

The provision of appropriate noise barriers along very busy roads through residential and other sensitive areas must be considered. Depending on the circumstances, these can be in the form of solid walls (always combined with vegetation to soften the visual impact), wooden or glass panels, specially designed devices, vegetation, etc.

Guidelines for the public-private space interface

Freeways are not considered to be hard urban spaces for the following reasons: firstly, they are two-dimensional elements of transport infrastructure rather than three-dimensional spaces; and, secondly, they do

not carry pedestrians (which is an essential characteristic of hard urban spaces). The above streetscaping guidelines do not therefore apply to freeways. However, as in the case of boulevards, it is necessary to control the impact of adjacent properties and development sites on freeways, as these properties are highly visible (by large numbers of people using the freeways) and their appearance significantly influences the image of the city as a whole.

The following public-private space interface guidelines apply only to freeways and other higher-order mobility routes within the built-up urban environment (the impact of surrounding properties on local roads and on freeways in rural environments is not so crucial from a city image point of view):

Structures

All buildings next to a freeway or other higher-order mobility route must be of good-quality contemporary architecture with attractive façades. Poor, indifferent, kitsch, ready-made or retrogressive (historically imitative) architecture should not be allowed in these locations. The back façades or building services of these buildings must not face the road. If a building, due to its use, has to have large blank walls on all façades (such as a warehouse), these walls must be architecturally articulated (ie be transformed into architectural features) or be covered by landscaping elements.

Edge treatment

Parking areas located between the road and the building are discouraged. However, where they occur, they must be intensively and ingeniously landscaped. Under no circumstances may carports be used in such parking areas. Carports may be used in a parking area that is located next to a building or between buildings, but if the parking area is visible from the road, the carports must be architecturally designed or their visual impact must be softened by trees and other landscaping features.

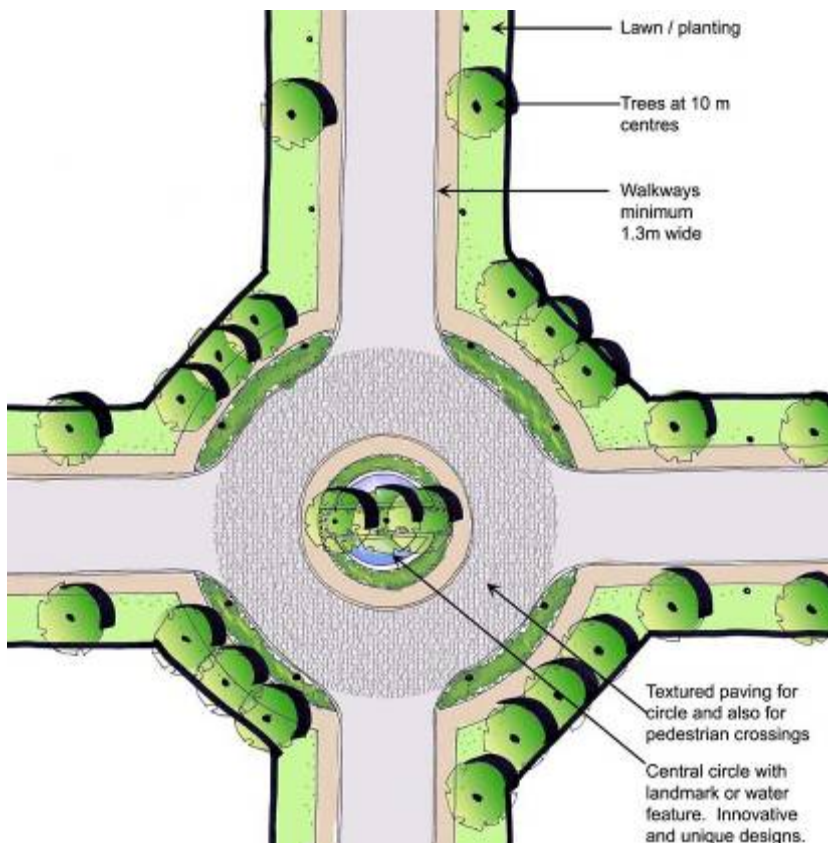
All boundary features (eg fences) should be transparent and of a good design quality. Boundary walls and other opaque boundary features should not be allowed.

Landscaping

All buildings next to freeways and other higher-order mobility routes should preferably be set in a park-like environment. The landscaping of sites adjacent to these roads must be well designed and be of the highest quality.

Streetscaping costs

ROAD	R1 800 – R3 200 per 1m length
TRAFFIC CIRCLE	R150 – R450 per 1m ²



04: Parking streets and areas



Streetscaping guidelines

Layout

The layout of parking areas must allow for a variety of uses for times during which there is no significant demand for parking space (eg on weekends or in the evening). On occasion, parking areas may be used for flea markets, for recreation purposes, for gatherings, etc.

Parking areas must be intersected by sufficiently wide walkways (minimum of 1,3m wide) that are easily identifiable as walkways and allow comfortable pedestrian movement. These walkways must be protected from the intrusion of vehicles (including 4x4 vehicles) by means of vertical kerbs or bollards.

Surfacing

All parking areas, including parking bays along streets, must be tarred or paved with paving materials appropriate to vehicular traffic. The tarring of areas other than roadways and parking bays that physically form part of the roadway is not acceptable. All parking areas must be well drained.

Where appropriate, grass blocks may be used to give a parking area a softer, park-like image.

Landscaping

Trees, preferably evergreen, must be planted along all streets where provision is made for parallel, diagonal or perpendicular parking in order to provide shade for the parked vehicles and to soften the visual impact of the parked vehicles.

Ten percent of a parking area must be landscaped. The standard of one tree for every four parking bays must be applied.

All trees, particularly saplings, must be protected from damage by vehicles.

All unpaved surfaces must be appropriately landscaped or at least be planted with low-maintenance ground covers.

A landscaped setback from the street must be provided for all parking areas.

Lighting

All parking areas must be well lit at night, primarily for security reasons.

Public furniture

Various types of informational and directional signage must be considered to identify entrances and exits, to regulate the traffic and to inform and orientate the public.

Litter receptacles must be provided along the main walkways of parking areas.

Parking meters, if provided, must be aligned or otherwise be placed neatly. They must not be in the way of pedestrians.

The design of kiosks, shelters or any other structures erected within a parking area must be coordinated with the design of the surrounding structures and other public furniture (for example a 'Victorian' kiosk cannot be placed in an area surrounded by contemporary architecture or in an area where the rest of the public furniture is hi-tech and modern).

All streetscape elements, such as bollards and raised traffic islands, must be either high enough to be visible to approaching drivers or be so low that they cannot cause damage to vehicles driving over them.

Service infrastructure

All elements of service infrastructure must be appropriately protected and be placed in such a way that they cannot be accidentally damaged by vehicles.

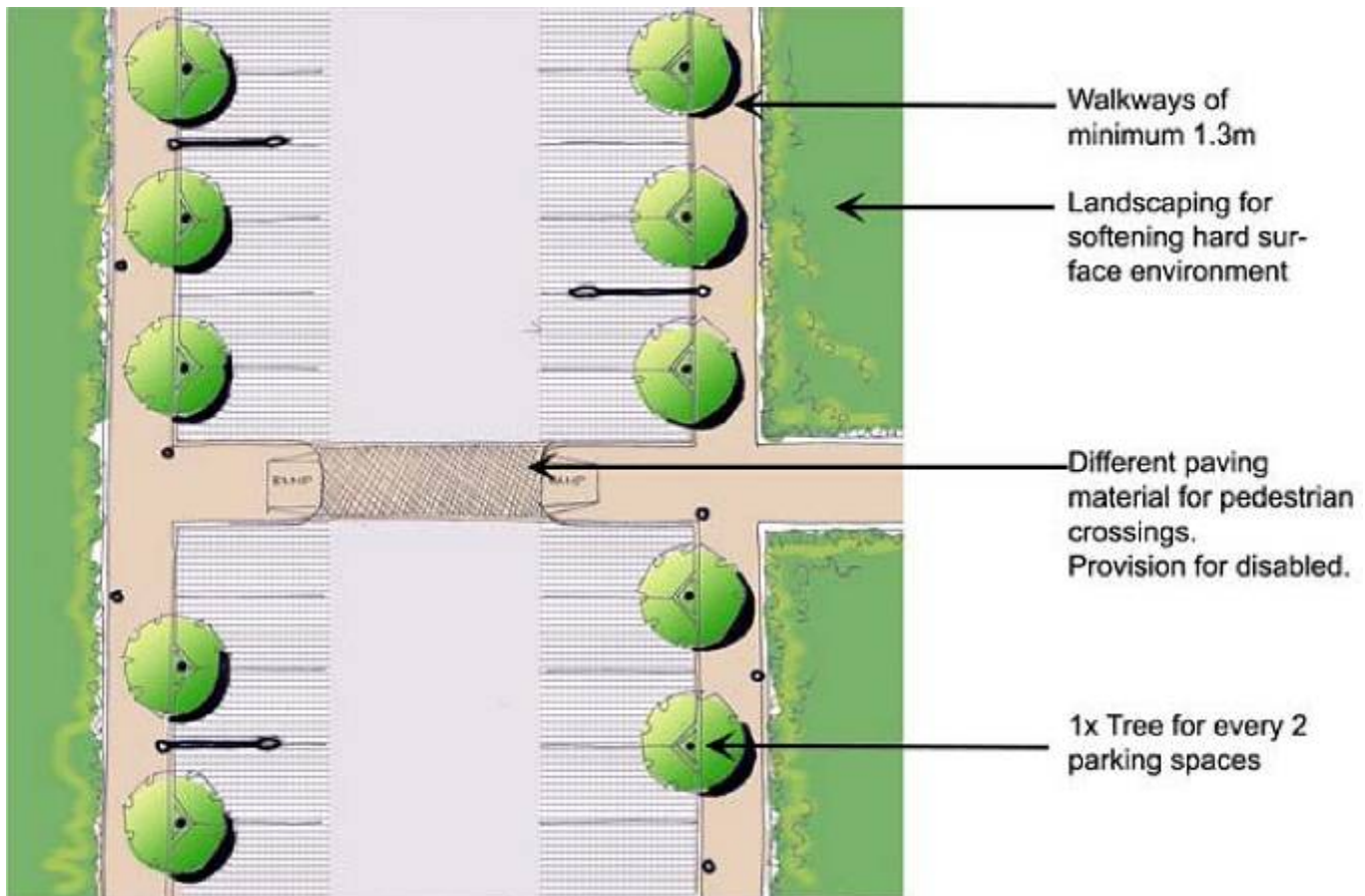
Guidelines for the public-private space interface

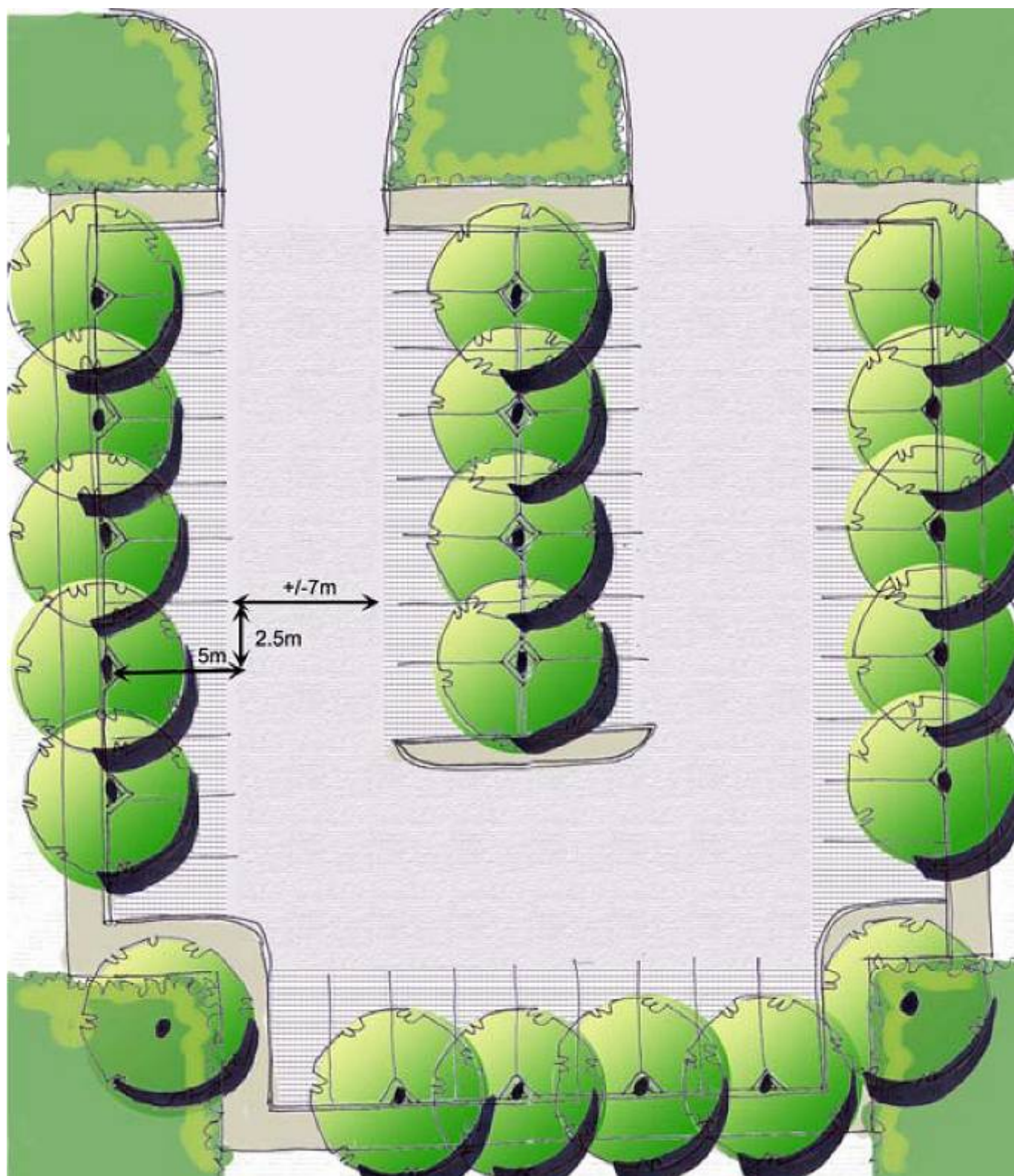
Structures and edge treatment

Surrounding buildings must be close to the parking area and overlook it in order to ensure adequate surveillance and thereby increase security.

Streetscaping costs

PARKING STREET	R3 900 – R7 700 per 1m length
PARKING AREA	R600 per 1m ²





05: Public transport routes and termini



Public transport routes are routes along which facilities have to be provided for people waiting for passing buses and taxis.

Public transport termini are areas where buses and taxis terminate or commence their journeys.

Streetscaping guidelines

Layout

Stops and stations must be located at points of greatest accessibility and must promote the use of integrated inter-modal transport nodes and changeovers.

Stops and stations must be located at shorter intervals in higher-density and mixed-use areas.

All bus stops and all areas where significant numbers of people regularly wait for taxis must be appropriately linked to walkways and other elements of the pedestrian movement network in the area.

Bus and taxi shelters should be placed at least 0,90m from the curb to allow for free movement in boarding and exiting from the bus.

It is advisable to place bus and taxi stops (shelters) in the vicinity (and in the view of) retail stores that sell products related to bus or taxi riders' needs (e.g. bakery, florist, newspaper kiosk, etc.) and are open until late at night; near office building entrances within the view of a security guard; near street vendors; as

well as in conjunction with other amenities such as telephone booths, benches, etc.

Surfacing

All bus stops and all areas where significant numbers of people regularly wait for taxis, as well as the pedestrian links with nearby walkways, must be paved.

Standard paving materials, appropriate to pedestrian traffic, should be used for bus stops, taxi waiting areas and all pedestrian areas in bus stations and taxi ranks.

Paving must be articulated by means of simple patterns created by using different materials, colours and textures to avoid monotony.

Landscaping

Trees must be planted in suitable locations in and around bus stations and taxi ranks in order to soften the potentially harsh visual impact of the structures.

The areas around trees must be appropriately edged (eg with kerbs or bricks) and be filled with gravel or be covered by metal, concrete or other tree grids. The tree grids must be as vandal-proof as possible and be designed in such a way that the collection of rubbish and cigarette butts inside them is minimised.

A seating facility can be designed to encircle a tree. Planters can also be designed to accommodate seating.

All unpaved or non-tarred surfaces must be appropriately landscaped or at least be planted with low-maintenance ground covers.

A landscaped setback from the street must be provided for all taxi ranks and stations.

Lighting

All public transport facilities, ie bus stops, taxi waiting areas, bus stations and taxi ranks, must be well lit at night.

Bus and taxi shelters, in relation to the surrounding streetlights, must be placed in such a way that no shadows (dark areas) are created within or around them. Light fittings within the shelters must be carefully placed to avoid casting of unwanted shadows and glare.

Public furniture

At bus stops and areas where significant numbers of people regularly wait for taxis, the following streetscape elements must be provided (preferably in an integrated manner):

- shelter;
- a seating facility; and
- a litter receptacle.

Seating facilities within bus and taxi shelters (i.e. benches or leaning rails) must be ergonomically designed to allow for comfortable seating, as well as to discourage sleeping and other forms of abuse by vagrants and vandals.

At more important stops, facilities for informal trade must also be provided.

At taxi ranks and bus stations, the following are required:

- shelters/canopies;
- directional and informational signage;
- public clocks;

- seating facilities;
- litter receptacles;
- drinking fountains;
- informal trade facilities;
- public toilet facilities; and
- public telephones.

At taxi ranks, facilities for washing and cleaning taxis may be provided, but they have to be carefully designed and located in a way that they do not inconvenience commuters or other users of these public spaces.

Signage

At all public transport facilities (stops, stations, ranks, etc.) appropriate signage, indicating the particulars of the routes and timetables, must be provided.

Advertising

Outdoor advertising is generally allowed in and around public transport facilities to capitalise on the large numbers of people present and to add to the vibrancy and colourfulness of these facilities.

Streetscaping costs

BUS TERMINUS / TAXI RANK	R400 per 1m ²
BUS AND TAXI SHELTER	R20 000 per shelter
CANOPY / SHADE STRUCTURE	R30 000 per structure
KIOSK	R50 000 per kiosk
PUBLIC TOILETS	R300 000 per facility

06: Promenades, walks and pedestrian squares



This category includes a variety of spaces and places that people use for walking, strolling, lingering, gathering, etc. They come in different forms ranging from relatively short and narrow alleyways to large promenades and esplanades.

Streetscaping guidelines

Layout

The width of a promenade or a walk will depend on its function, length and the number of people that will be using it, but no promenade or walk, except for very short alleyways intended for communal (semi-public) use only, may be narrower than 2,0 m.

Walking routes must be as level as possible, as unnecessary changes in level can cause accidents.

Surfacing

Standard paving materials should be used.

Pavements must be articulated by means of simple patterns created by using different materials, colours and textures to avoid monotony.

Landscaping

Wherever there is sufficient space available, trees must be used to provide shade and ambience.

Seating facilities can be designed to encircle the trees. Planters can also be designed to accommodate seating.

All unpaved surfaces must be appropriately landscaped or at least be planted with low-maintenance ground covers.

In pedestrian squares, the paved surfaces must be complemented by high-quality lawns and/or gardens, landscaped to strengthen the desirable character and ambience of the squares.

Lighting

All promenades, walks and pedestrian squares must be well lit at night by means of lights purposely designed for pedestrian areas.

Public furniture

All pedestrian squares and all promenades and walks, except for very short alleyways intended for communal (semi-public) use only, must be furnished with seating facilities and litter receptacles. Larger pedestrian squares where larger numbers of people are expected to linger or gather (regularly or occasionally) must be provided with public toilet facilities. Street cafes and facilities such as bandstands are encouraged.

Guidelines for the public-private space interface

Structures, edge treatment and landscaping

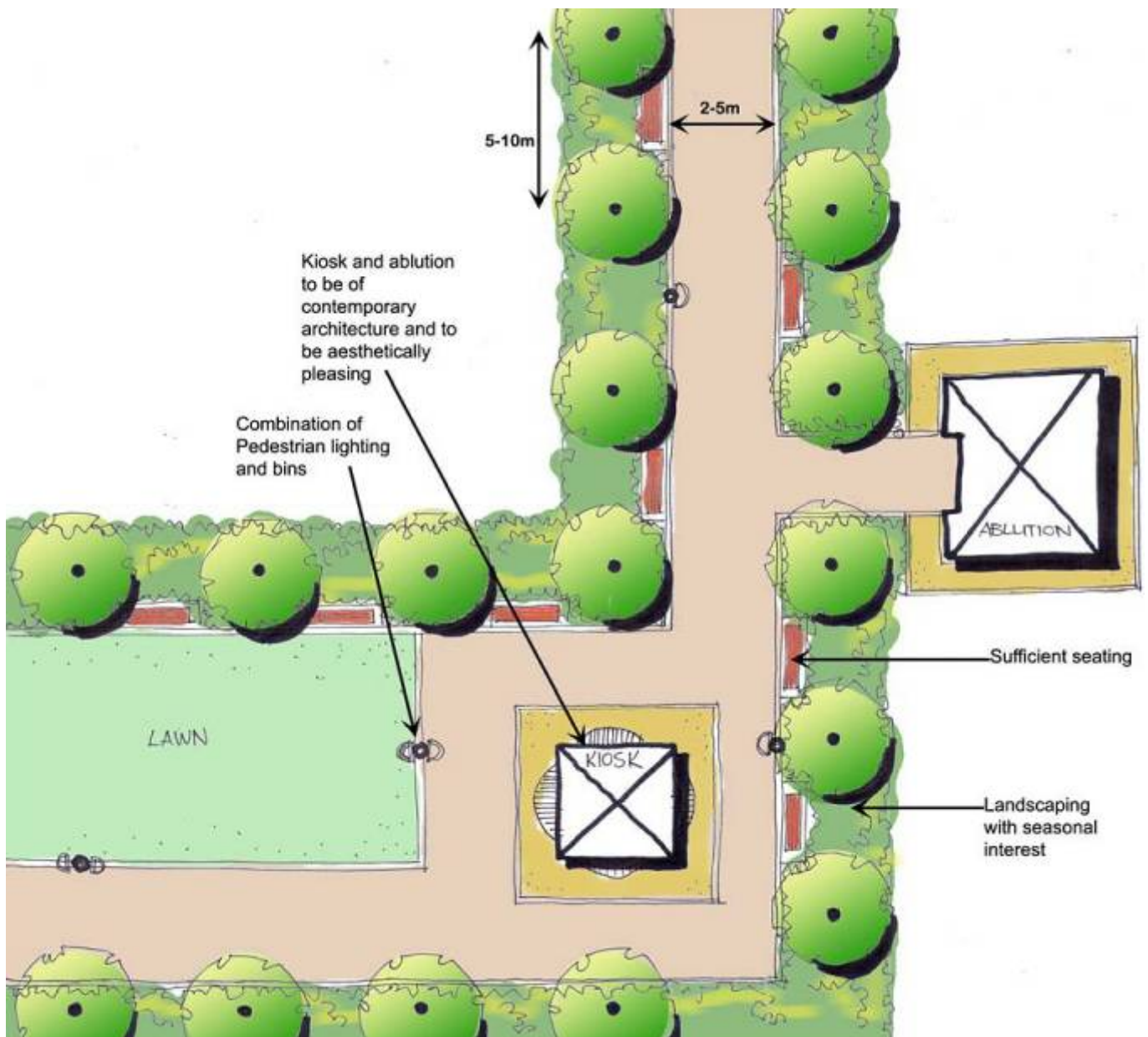
The buildings and the landscaping around a pedestrian square must contribute to the spatial definition of the square.

The edges of properties surrounding promenades, walks and pedestrian squares must contribute to the

creation of an attractive, relaxing and people-friendly atmosphere. They should allow for a view of the public/communal urban space from adjacent buildings (ie solid walls must be avoided).

Streetscaping costs

PROMENADE / WALK	R2 900 – R5 800 per 1m length
PEDESTRIAN SQUARE	R500 per 1m ²
BANDSTAND	R120 000 per structure
KIOSK	R50 000 per kiosk
PUBLIC TOILETS	R300 000 per facility



07: Play streets and playgrounds



Streetscaping guidelines

Layout and surfacing

The layout, surfacing materials and pavement patterns of play streets and playgrounds will depend on the intended activity or activities that are to take place in them.

Roadways through or around playgrounds must have speed bumps and raised pedestrian crossings.

Landscaping

Playgrounds must include lawns, as well as decorative planting (flower beds, pot plants, etc).

Trees must provide shade and ambience. Thorn trees must be avoided in these areas.

Lighting

Play streets and playgrounds must be lit at night like all other pedestrian areas, but if they are intended to be used at night for a recreational activity, they must have additional lighting appropriate to the particular activity.

Public furniture

Play streets and playgrounds must be equipped with appropriate apparatuses and facilities for the intended

activities. No play street or playground may have any generally accessible apparatus or facility that could pose any kind of danger to their users or to passers-by, including children.

Playgrounds should preferably be fenced off with a see-through fence and have a single controlled entrance to prevent small children from wandering off.

All roadways crossing or running adjacent to play streets and playgrounds must be separated from pedestrian areas by means of physical barriers to prevent people from straying onto the roadways. This can be achieved by means of railings, low fences, bollards with decorative chains, etc.

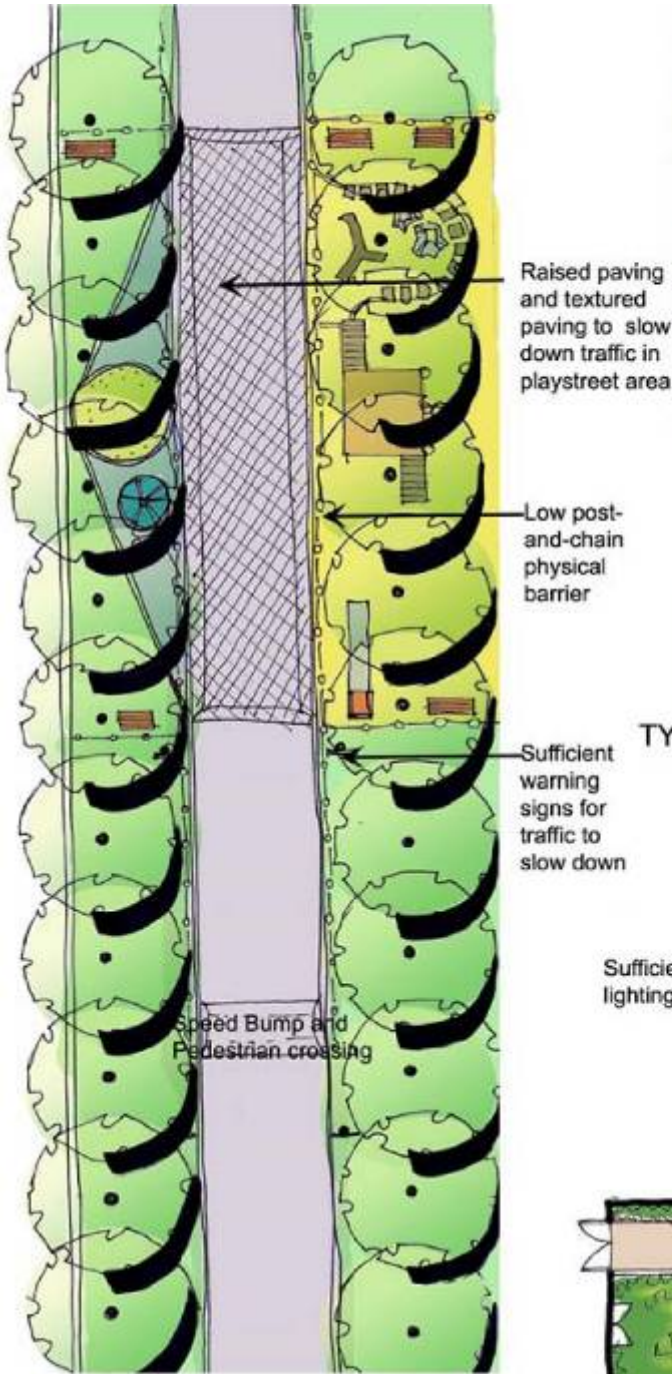
All areas where ball games are to be played must be bounded with fences sufficiently high to prevent the activities from spilling over onto adjacent areas.

Seating facilities and litter receptacles must be provided in all play streets and playgrounds.

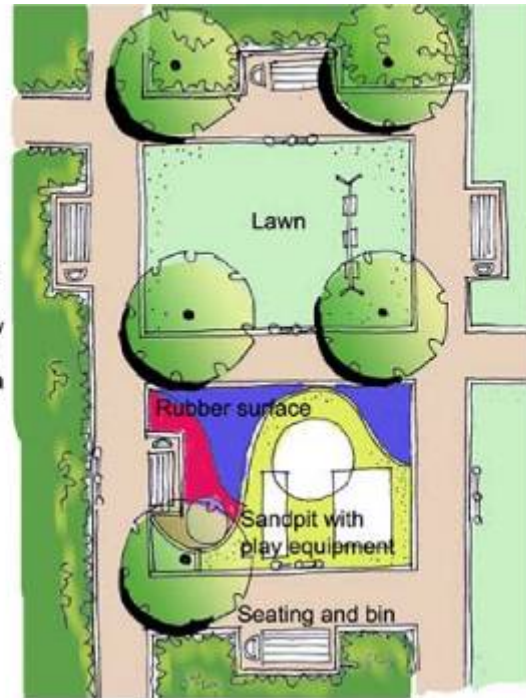
Canopies and other shade-providing structures may supplement trees.

Larger facilities must have drinking fountains and public toilets. They may also have kiosks for the sale of refreshments, as well as kiosks accommodating security officers (guards) and storage facilities if necessary.

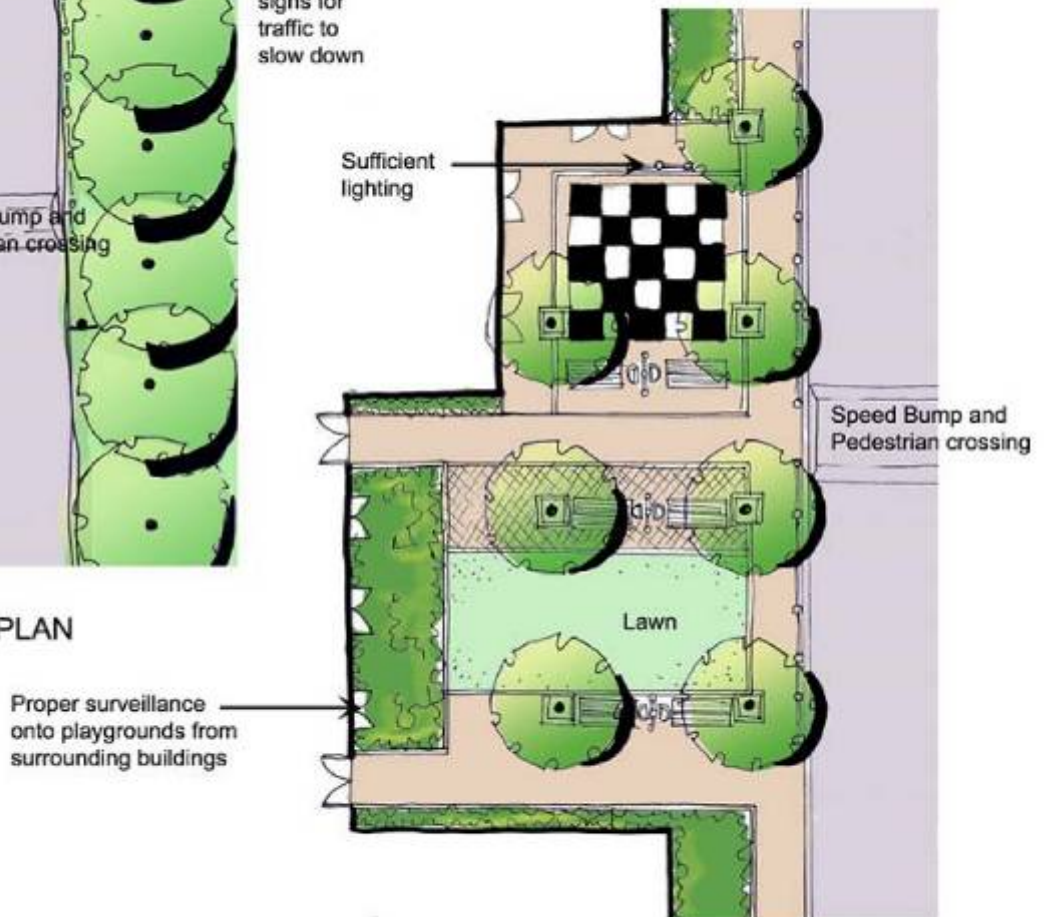
The provision of bike racks is recommended.



PLAY STREET PLAN



TYPICAL PLAYGROUND PLAN



PLAYGROUND BETWEEN STREET AND BUILDINGS PLAN

Signage

Appropriate signage must be provided to make drivers aware that they are crossing a play street or driving through or next to a playground.

Guidelines for the public-private space interface

Land use

Residential use is preferred around playgrounds and play streets. However, the presence of restaurants and cafes is encouraged, as they can meet the refreshment needs of adult users and provide a place where the parents/minders of the children can sit and survey the playground entrance while the children are playing.

Structures, edge treatment and landscaping

Playgrounds and play streets must be surrounded by buildings with windows overlooking the playing areas.

No landscaping or structural elements (trees, shrubs, walls, etc) must obstruct the view of the playing areas from the windows.

Streetscaping costs

PLAY STREET	R2 900 – R6 100 per 1m length
PLAYGROUNDS	R500 per 1m ²
CANOPY / SHADE STRUCTURE	R30 000 per structure
KIOSK	R50 000 per kiosk
PUBLIC TOILETS	R300 000 per facility

08: General activity streets and squares



An example of a street (road) in front of a shopping centre which, despite being surrounded by buildings accommodating general activities, does not function as a general activity street



An example of a genuine general activity street

General activity areas are areas where a wide variety and mix of land uses, activities and structures are found (such as residential buildings, hotels, restaurants and cafes, public transport facilities, offices, shops, markets, theatres, cinemas, libraries, museums, temples and schools). These land uses, activities and structures support and complement one another both socially and economically.

To be regarded as a general activity street or square, an urban space must have these land uses, activities and structures immediately on its edge and must interact

with them. These so-called general activities must be able to spill over into the urban space (eg street cafes and shop windows). For example, a street running adjacent to a shopping centre, but separated from it by means of a fence, wall, large landscaped area, service yard, etc, cannot be regarded as a general activity street. In this case, all general activities are contained within the shopping centre. The street is devoid of any general activity and probably only functions as a road.

General activity streets and squares can be described as –

- the busiest and the most vibrant urban spaces;
- truly 'neutral' territories (which 'belong' to everybody and not only to the residents of a particular area);
- major public transport hubs;
- foci of civic identity; and
- key destinations for visitors and tourists.

General activity streets and squares must be designed in accordance with the following streetscape design guidelines:

Streetscaping guidelines

Layout

Walkways along general activity streets must be generous and must always be wider than 3,0 m.

Walking routes must be as level as possible, as unnecessary changes in level can cause accidents.

The entire space of a general activity street or square (from the building façade on the one side to the building façade on the opposite side) must have a public character and be appropriately paved or landscaped (in order to avoid the inhibiting feeling of intruding onto somebody's private space).

Surfacing

Standard paving materials should be used.

Pavements must be articulated by means of simple patterns created by using different materials, colours and textures to avoid monotony.

Landscaping

Trees must be planted along streets and on the perimeter of squares to provide shade and ambience.

The areas around trees must be appropriately edged (eg with kerbs or bricks) and be filled with gravel or be covered by metal, concrete or other tree grids. The tree grids must be as vandal-proof as possible and be designed in such a way that the collection of rubbish and cigarette butts inside them is minimised.

A seating facility can be designed to encircle a tree. Planters can also be designed to accommodate seating.

The paved surfaces of a general activity square must be complemented by high-quality landscaping to strengthen the desired character and ambience of the square.

The use of planters and hanging flower baskets along general activity streets should be considered. All unpaved surfaces must be appropriately landscaped.

Lighting

All general activity streets and squares must be well lit at night by means of lights purposely designed for pedestrian areas.

Public furniture

The following streetscape elements must be provided:

- seating facilities;
- litter receptacles; and
- public telephones.

General activity streets should preferably have continuous canopies over walkways which may be permanent structures or be demountable (fabric or plastic) features.

The following elements are also recommended:

- public clocks;
- banner poles with banners to add to the vibrancy of the space and create a festive atmosphere;
- bandstands;
- drinking fountains; and
- public toilet facilities.

The presence of sidewalk cafes with their street furniture (tables, chairs, umbrellas, etc) is encouraged.

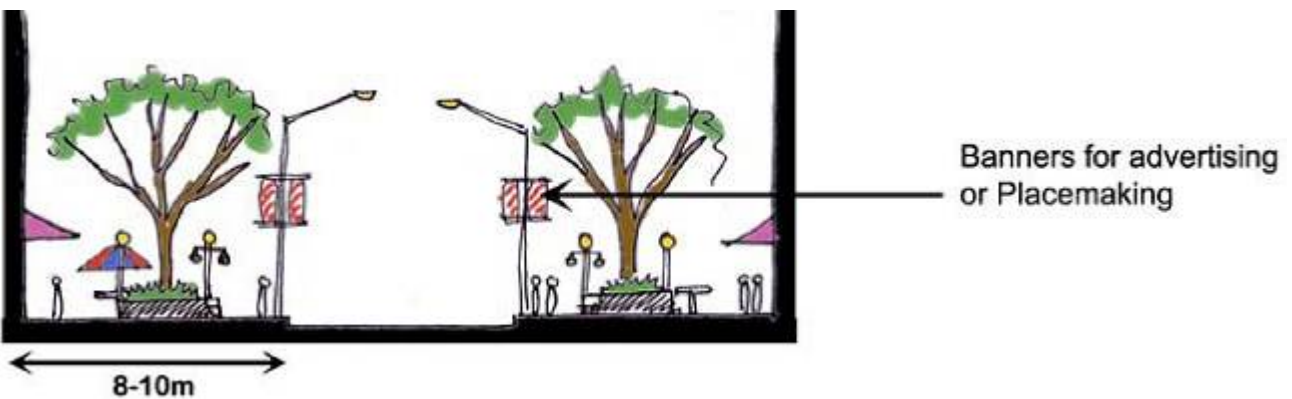
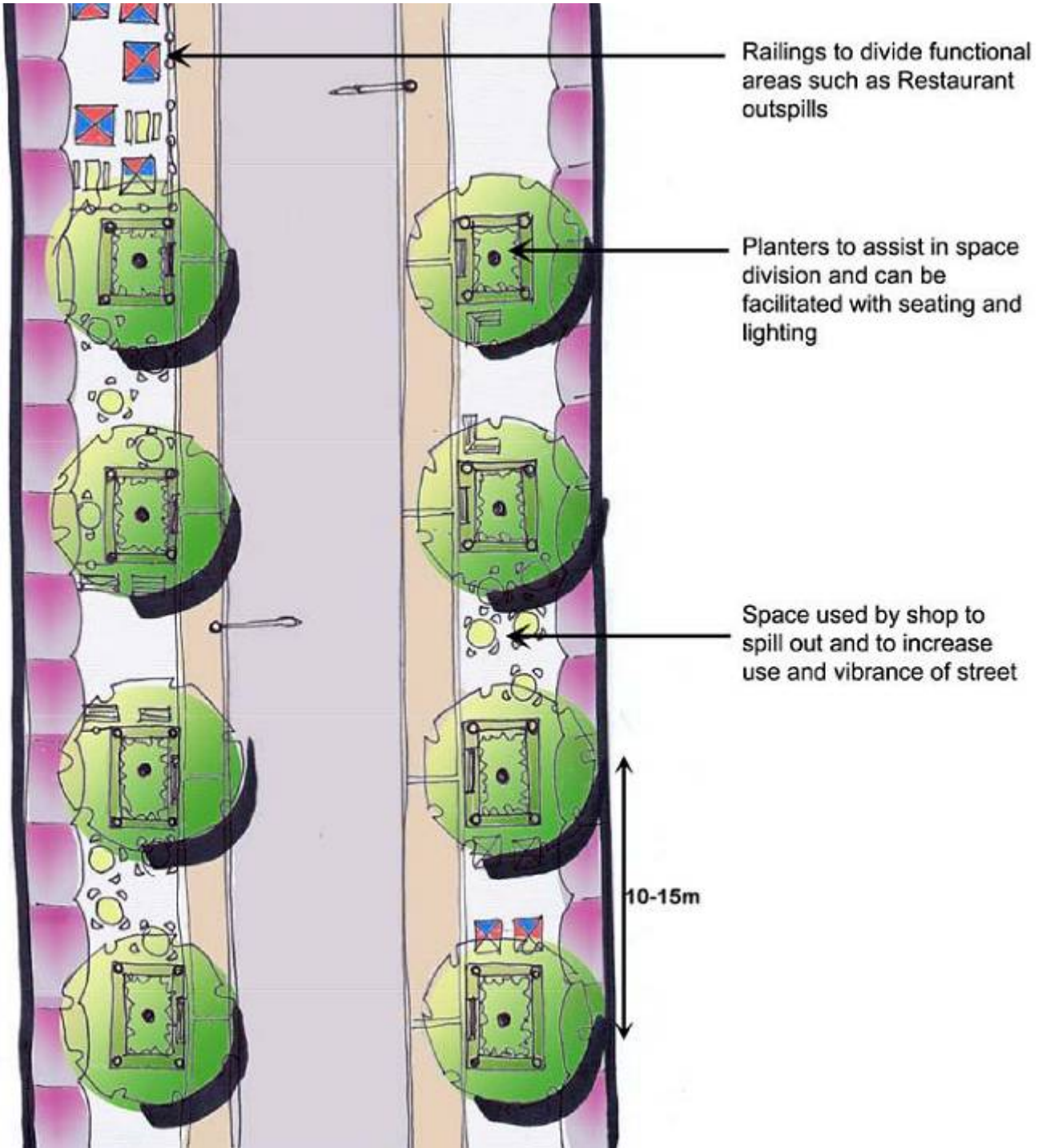
Service infrastructure

No elements of service infrastructure (eg overhead power lines, electrical transformers, water meters, etc) may be exposed along general activity streets and in general activity squares. Even elements of service infrastructure that are neatly concealed within specially made containers, boxes or cases must be avoided. When unavoidable, these containers, boxes and cases must be carefully coordinated with other streetscape elements in terms of placing and design.

Signage

The design of traffic signs and signals must, wherever possible, be physically combined and integrated with other streetscape elements (eg markers and gateway structures).

Good directional and informational signage is recommended.



Advertising

Outdoor advertising is generally allowed in general activity areas in order to capitalise on the large numbers of people present and to add to the vibrancy and colourfulness of these urban spaces.

Guidelines for the public-private space interface

Land use

Land uses that attract few pedestrians or that, by their nature, result in unattractive buildings or cause any nuisance to pedestrians are not allowed along general activity streets or around general activity squares.

Structures

Surrounding buildings must be designed in a way that their windows overlook the public space. Their ground floors must accommodate general activities and interact directly with the adjacent public urban spaces.

Edge treatment

All areas between the street boundary and the buildings should have a public character and be appropriately paved or landscaped (in order to avoid the inhibiting feeling of intruding onto somebody's private space).

No fences or other types of continuous physical or visual barriers should be allowed.

No parking areas, except on-street parking, are allowed between the roadway and building façades (shop fronts). If parking space along the street is insufficient, additional parking space can be provided behind buildings, in basements or in central (shared) parking facilities/areas.

Streetscaping costs

GENERAL ACTIVITY STREET	R6 800 – R13 600 per 1m length
GENERAL ACTIVITY SQUARE	R600 per 1m ²
CANOPY / SHADE STRUCTURE	R30 000 per structure

09: Specialised activity streets and squares



Specialised activity streets and squares are hard urban spaces that interface directly with land uses, activities and structures that can be classified as neither general activities nor residential. These include offices, warehouses, workshops, factories and other similar land uses, activities and structures.

surrounding offices, workshops, factories, etc, for relaxation (eg during their lunch times).

Public furniture

Seating facilities must be provided in specialised activity squares.

Streetscaping guidelines

Layout

Walkways along specialised activity streets must be wider than 1,2 m.

Surfacing

Standard paving materials should be used.

Landscaping

Trees must be planted along streets and around squares to provide shade for people walking between public transport facilities and their workplaces, to enhance the environment, and to soften the potentially harsh impact of industrial and semi-industrial structures.

All unpaved surfaces along specialised activity streets must be appropriately landscaped or at least be planted with low-maintenance ground covers.

Specialised activity squares must be suitably landscaped so that they can be used by workers from

Guidelines for the public-private space interface

Edge treatment

Palisade fencing and other types of see-through fences are preferred to solid walls, as solid walls obstruct the view of the street and create dull, dead environments.

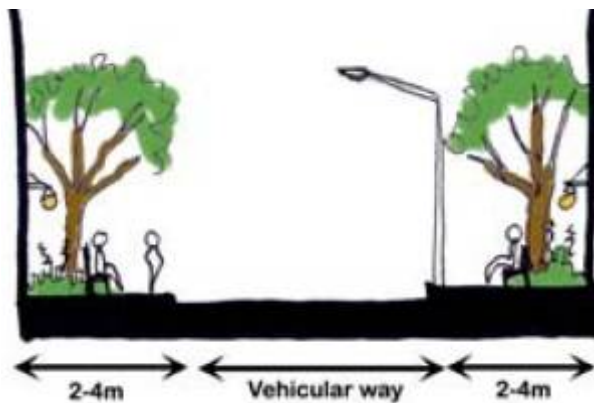
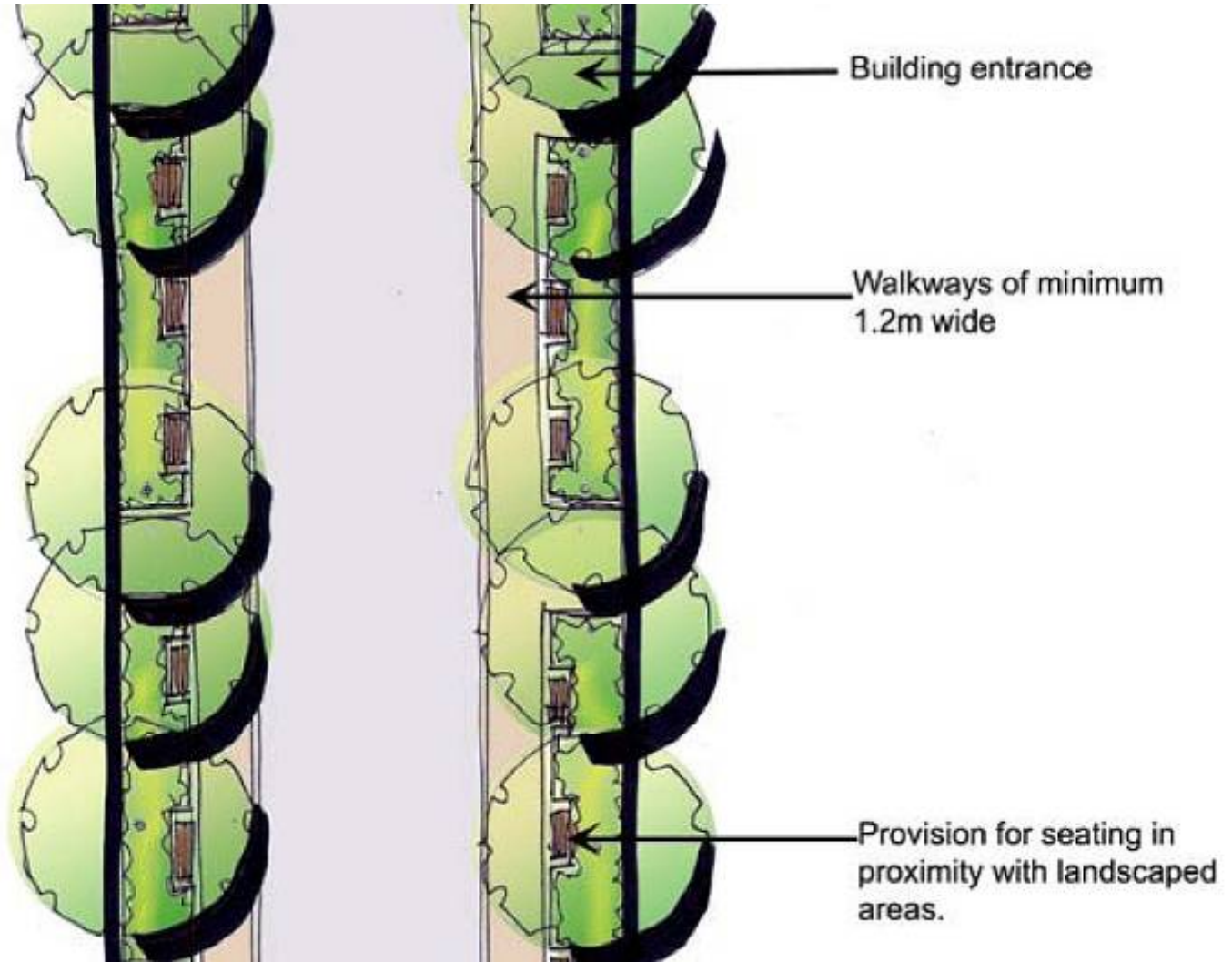
Landscaping

The landscaping of properties on which specialised activities take place must be aimed at creating park-like environments and softening the potentially harsh impact that some specialised activity buildings (such as industrial buildings and warehouses) may have on the public urban space.

The landscaping of specialised activity sites (excluding office developments) should preferably be aimed at creating low-maintenance or maintenance-free sites – to avoid the negative impact of neglected gardens (gardens around warehouses and workshops are often neglected).

Streetscaping costs

SPECIALISED ACTIVITY STREET	R3 000 – R7 300 per 1m length
SPECIALISED ACTIVITY SQUARE	R500 per 1m ²



10: Residential streets and neighbourhood squares



Residential streets and neighbourhood squares are hard urban spaces that interface directly with residential properties, houses and apartment buildings.

Neighbourhood squares should, for all practical purposes, be regarded as playgrounds and be treated accordingly.

Residential streets must comply with the following minimum requirements:

Streetscaping guidelines

Layout

A residential street must have a walkway on each side of at least the minimum size (ie 1,3m wide). Subject to an acceptable substantiation and justification, these walkways may be omitted in a quiet residential street with a negligible amount of vehicular traffic and where the mixing of pedestrian and vehicular movement can pose no danger.

Surfacing materials

Standard paving materials should be used.

Landscaping

All unpaved surfaces must be appropriately landscaped or at least be planted with low-maintenance ground covers.

The planting of street trees is recommended.

Advertising

No advertising is allowed in residential streets or neighbourhood squares unless specifically permitted by the Outdoor Advertising By-laws.

Guidelines for the public-private space interface

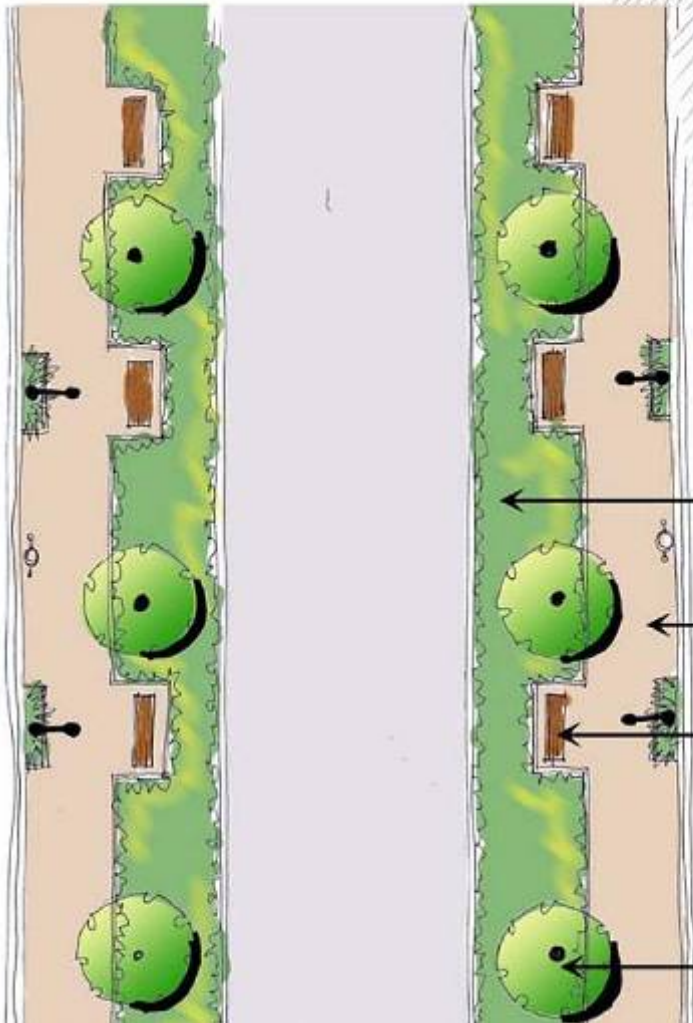
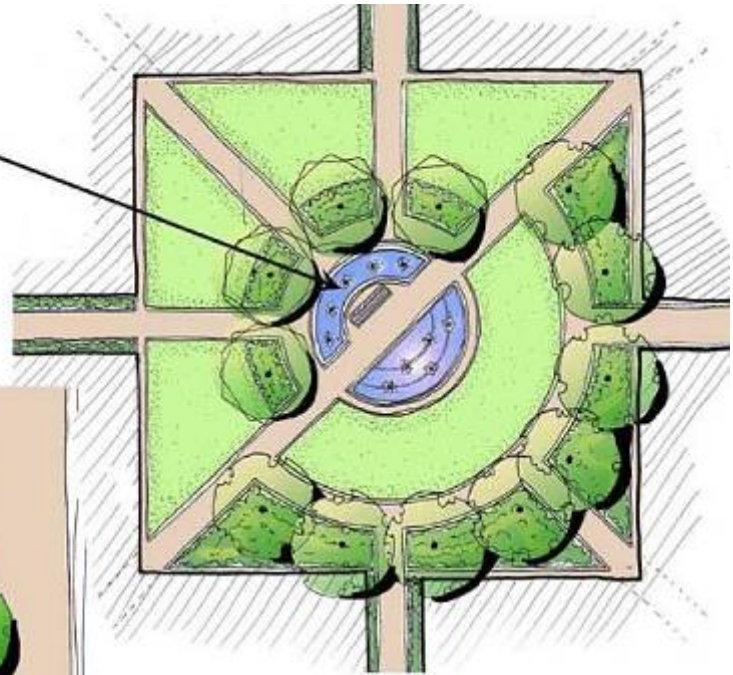
Edge treatment

Palisade fencing and other types of see-through fences are preferred to solid walls, as solid walls obstruct the view of the street and create dull, uninteresting and unsafe environments.

Streetscaping costs

RESIDENTIAL STREET	R2 400 – R4 700 per 1m length
NEIGHBOURHOOD SQUARE	R300 per 1m ²

Residential squares to be designed as aesthetically pleasing and tranquil spaces for recreation and reflection

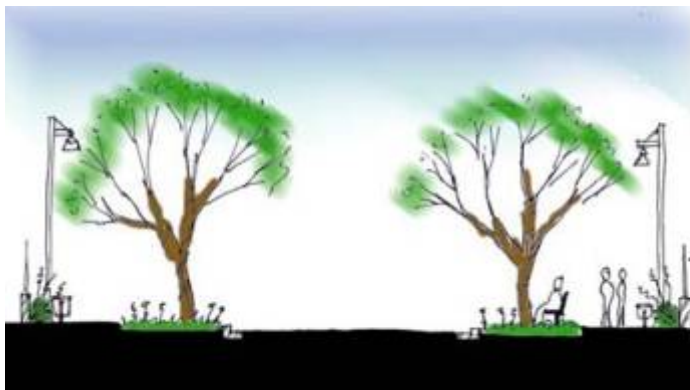


Landscaped with low maintenance groundcovers

Minimum sidewalk width of 1.3m

Provision of seating and lighting

Trees to create sense of place



Visually permeable erf boundary fencing

Streetscape analysis

The following table can be used as a checklist for analysing any hard urban space and determining its streetscape quality, as well as the types of remedial actions that should be taken should any deficiencies or problems be identified (ie should the answer to any question be “no”):

	ACTION REQUIRED					
	SPATIAL PLANNING AND LAND USE MANAGEMENT	NEGOTIATIONS AND PARTNERSHIPS WITH THE PRIVATE SECTOR	STREETScape, LANDSCAPE AND/OR ENGINEERING DESIGN	CAPITAL EXPENDITURE	MAINTENANCE (PHYSICAL IMPROVEMENTS, REPAIRS AND CLEANSING)	INSTITUTIONALISATION, REGULATION, CONTROL, ENFORCEMENT
CITY STRUCTURING, LEGIBILITY AND DESIGN						
Are the overall physical characteristics of the space (eg its size, form and layout) appropriate to the activities taking place within the space, as well as to the overall character of the space and its status within the broader context?	○	○	○	○		
Is the surrounding land use appropriate to the activities taking place within the space, as well as to the overall character of the space and its status within the broader context?	○	○				
Do the surrounding properties interface the space in a way which is appropriate to the activities taking place within the space, as well as to the overall character of the space and its status within the broader context?	○	○				○
Do the surrounding buildings and other features (eg street trees) sufficiently contribute to the spatial definition of the space, its spatial qualities and ambience?	○	○				
Is the entire space equally well spatially defined and utilised (meaning that there are no accidental, amorphous, purposeless and meaningless spaces)?	○	○	○	○		
Is the quality of streetscape elements within the space appropriate to the role that the space plays in the broader urban context (ie to the status of the space in the hierarchy of urban spaces)?			○	○	○	
COMFORT AND SAFETY						
Are the sidewalks wide enough to accommodate the current pedestrian flow and other permissible / desirable activities that currently take place on the sidewalks?			○	○	○	
Do all the sidewalks and other pedestrian areas have surfaces which are dust and mud free?			○	○	○	
Are the walking surfaces in good condition and well drained, i.e. do they allow for safe and comfortable walking?			○	○	○	
Are the sidewalks free of any obstacles in the way of pedestrians that cause inconvenience or pose a danger?					○	○
Is there sufficient shade for pedestrians (trees, canopies, etc.)?	○		○	○		

	ACTION REQUIRED					
	SPATIAL PLANNING AND LAND USE MANAGEMENT	NEGOTIATIONS AND PARTNERSHIPS WITH THE PRIVATE SECTOR	STREETSCAPE, LANDSCAPE AND/OR ENGINEERING DESIGN	CAPITAL EXPENDITURE	MAINTENANCE (PHYSICAL IMPROVEMENTS, REPAIRS AND CLEANSING)	INSTITUTIONALISATION, REGULATION, CONTROL, ENFORCEMENT
Are the sidewalks and other pedestrian areas sufficiently protected from the intrusion of vehicles by means of vertical kerbs, bollards or otherwise?			○	○	○	
Are the sidewalks sufficiently and appropriately lit by night?			○	○	○	
Is the directional and information signage, providing essential information to the public, sufficient and visible?			○	○	○	
Are there sufficient and appropriate public facilities, amenities and furniture to service, support and facilitate all permissible / desirable activities that take place within the space (eg public toilets, trader stalls, benches, drinking fountains, etc.)?			○	○		○
Are all elements of service infrastructure safely protected (enclosed, covered, locked, sealed, etc.) so that they do not pose any danger to pedestrians (such as open manholes, exposed electrical installations, etc.)?					○	
Are there sufficient provisions for the disabled?			○	○		
Are all streetscape elements designed and placed in such a way that they minimise opportunities for criminal activities (meaning that they do not create hiding places or other opportunities for criminals)?			○	○		
ATTRACTIVENESS						
Are various streetscape elements placed in a coordinated manner, i.e. logically related to each other, well spaced, aligned where appropriate, etc. (meaning that they are not placed arbitrarily and / or cluttered)?			○	○	○	
Is the design quality of the existing streetscape elements acceptable in terms of nationally and internationally recognised, good design standards and practices (meaning that these streetscaping elements are not ugly, cheap looking, kitschy, mediocre or in any other way inappropriate to the context)?		○	○	○	○	
Are all streetscape elements within the space reasonably well coordinated (matching) in terms of their appearance and design?			○	○	○	
Are all above-ground elements of service infrastructure (such as transformer boxes, hydrants, water or electricity meters, etc.) designed and placed in such a manner that they are not physically or visually obtrusive or obnoxious, i.e. are they neatly concealed within appropriate containers, boxes, cases, etc?			○	○	○	
Are all streetscape elements in a good state of repair and functioning (meaning that none are worn off, damaged, malfunctioning or vandalised)?					○	
Do the pavements and paving patterns appear to be neat, uninterrupted and consistent?			○	○	○	
Are all horticultural elements (e.g. trees, shrubs, flowers, ground covers, lawns, etc.) appropriate in terms of the plant species, location, layout, size, etc?			○	○	○	

	ACTION REQUIRED					
	SPATIAL PLANNING AND LAND USE MANAGEMENT	NEGOTIATIONS AND PARTNERSHIPS WITH THE PRIVATE SECTOR	STREETScape, LANDSCAPE AND/OR ENGINEERING DESIGN	CAPITAL EXPENDITURE	MAINTENANCE (PHYSICAL IMPROVEMENTS, REPAIRS AND CLEANSING)	INSTITUTIONALISATION, REGULATION, CONTROL, ENFORCEMENT
Are all horticultural elements well maintained?					○	
Are the rows of street trees complete (meaning that no trees are missing)?					○	
Is lighting used creatively to enhance the legibility of the city at night, highlight important landmarks and otherwise complement architectural and landscaping features?		○	○	○	○	
Is the space free of unnecessary or undesirable streetscape elements, such as unused or unusable street furniture, remains of old public furniture, dead trees, etc.)?					○	
Does the space generally appear well looked after, clean and neat?					○	
Are outdoor advertising signs acceptable in terms of their location, size and supporting structure design?		○	○			○
LIVELINESS						
Are all the activities that take place within the space generally desirable, acceptable and compatible?						○
Are there activities that could or should take place within the space, but do not?		○				○
Are all activities that take place within the space well regulated, coordinated and managed?		○				○

2. STREETScape ELEMENTS

Overview

STREETSCAPE ELEMENT		STREETSCAPE ASPECTS THAT ARE IMPACTED ON BY THE ELEMENT	RELEVANT CONTROLS	WHO CONTROLS THE ELEMENT	WHO PROVIDES THE ELEMENT	WHO MAINTAINS THE ELEMENT
EDGES / WALLS	BUILDINGS	<ul style="list-style-type: none"> ▪ attractiveness (surrounding buildings spatially define a street or a square by determining its form, scale, and proportions, as well as by creating either a sense of openness or enclosure) ▪ legibility (buildings may enhance or confuse the legibility of the city and its spaces - for example, the legibility is enhanced when taller and statelier buildings line more important streets and it is confused when important routes are lined by small residential houses or when tall buildings line an unimportant street) ▪ liveliness (activities within buildings, particularly those at ground floor level, determine the overall character and the level of liveliness of a street or a square) ▪ comfort and safety (windows overlooking the street increase security; shop windows along the sidewalks provide additional light) 	<ul style="list-style-type: none"> ▪ building height ▪ distance of the building from the street boundary (building line or build-to line) ▪ the width of the gaps between buildings (site coverage) ▪ projecting elements on the building façades (eg canopies, balconies and eaves) ▪ materials and finishes on the building façades ▪ the size, proportions and rhythm of openings (windows and shop windows) on the building façades ▪ overall articulation and architectural expression of the buildings 	<ul style="list-style-type: none"> ▪ City Planning (through the Town Planning Scheme, as well as site development plan and building plan approval processes) 	<ul style="list-style-type: none"> ▪ Private sector (unless it is a public building) 	<ul style="list-style-type: none"> ▪ Private sector (unless it is a public building)
	PROPERTY EDGES (BOUNDARY WALLS, FENCES, HEDGES, ETC.)	<ul style="list-style-type: none"> ▪ liveliness (active edges – eg shop fronts – promote street life, while dead edges – eg blank walls or vegetation – deter any street activity) ▪ attractiveness ▪ comfort and safety (see-through edges allow for the surveillance of the street space and thereby increase security) 	<ul style="list-style-type: none"> ▪ the type of the edge treatment and the level of transparency/opaqueness ▪ the height of the edge feature ▪ materials and finishes ▪ the position and type of vehicular access to the site ▪ the position and lay-out of on-site parking visible from the street ▪ on-site planting and paving visible from the street 	<ul style="list-style-type: none"> ▪ City Planning (through the Town Planning Scheme, as well as site development plan and building plan approval processes) 	<ul style="list-style-type: none"> ▪ Private sector (unless it is a public property) 	<ul style="list-style-type: none"> ▪ Private sector (unless it is a public property)
SURFACES	SIDEWALKS	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness ▪ liveliness (larger paved areas and more attractive paving patterns attract people to congregate and interact in the street space) ▪ legibility (wider sidewalks suggest the importance of a route) 	<ul style="list-style-type: none"> ▪ sidewalk width, position and layout within the road verge ▪ surfacing (paving) materials and patterns ▪ position of overhead and underground services ▪ vertical/protruding elements 	<ul style="list-style-type: none"> ▪ Roads and Stormwater ▪ City Planning (design aspects) 	<ul style="list-style-type: none"> ▪ Roads and Stormwater ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Roads and Stormwater ▪ Private sector (within privately managed precincts)
	ROADWAYS	<ul style="list-style-type: none"> ▪ comfort and safety ▪ legibility (wider roadways, and particularly the presence of a median island, suggest more important vehicular routes) 	<ul style="list-style-type: none"> ▪ road geometry (number of lanes, median islands, total width) ▪ on-street parking provisions ▪ pedestrian crossings ▪ surfacing and kerbing materials 	<ul style="list-style-type: none"> ▪ Roads and Stormwater 	<ul style="list-style-type: none"> ▪ Roads and Stormwater 	<ul style="list-style-type: none"> ▪ Roads and Stormwater

STREETScape ELEMENT	STREETScape ASPECTS THAT ARE IMPACTED ON BY THE ELEMENT	RELEVANT CONTROLS	WHO CONTROLS THE ELEMENT	WHO PROVIDES THE ELEMENT	WHO MAINTAINS THE ELEMENT	
PUBLIC FURNITURE	LIGHTING	<ul style="list-style-type: none"> ▪ comfort and safety (lighting provides the necessary visibility within public urban spaces by night) ▪ attractiveness (lighting can have a decorative function) ▪ liveliness (dark places are very seldom lively by night) ▪ legibility (more light suggests the importance of a street or square) 	<ul style="list-style-type: none"> ▪ lighting levels ▪ position and spacing of lights ▪ types and designs of street lights ▪ types and designs of decorative lights and light features 	<ul style="list-style-type: none"> ▪ Electricity (functional aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) ▪ City Planning and Environmental Management (design aspects) 	<ul style="list-style-type: none"> ▪ Electricity ▪ City Planning ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Electricity ▪ Private sector (within privately managed precincts)
	BOLLARDS	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of bollards ▪ position and spacing of bollards 	<ul style="list-style-type: none"> ▪ Roads and Stormwater (traffic safety aspects and way leave approval) ▪ City Planning and Environmental Management (design aspects) 	<ul style="list-style-type: none"> ▪ Roads and Stormwater ▪ Environmental Management ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Roads and Stormwater ▪ Environmental Management (in relation to green open spaces) ▪ Private sector (within privately managed precincts)
	SEATING FACILITIES	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of facilities ▪ position of facilities 	<ul style="list-style-type: none"> ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Transport (within public transport facilities) ▪ City Planning ▪ Private sector (within privately managed development precincts or in return for advertising rights) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Transport (within public transport facilities) ▪ Private sector (within privately managed development precincts or in return for advertising rights)
	DRINKING FOUNTAINS	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of fountains ▪ position of fountains 	<ul style="list-style-type: none"> ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts)
	PUBLIC FIRE PLACES AND BRAAI FACILITIES	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of the facilities ▪ position of the facilities 	<ul style="list-style-type: none"> ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts)
	LETTER-BOXES	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of elements ▪ position of elements 	<ul style="list-style-type: none"> ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Post Office 	<ul style="list-style-type: none"> ▪ Post Office
	LITTER RECEPTACLES	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of receptacles ▪ position and spacing of receptacles 	<ul style="list-style-type: none"> ▪ Environmental Management (from a functional and design perspective) ▪ City Planning (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ City Planning ▪ Private sector (within privately managed development precincts or in return for advertising rights) 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ Private sector (within privately managed development precincts or in return for advertising rights)

STREETSCAPE ELEMENT		STREETSCAPE ASPECTS THAT ARE IMPACTED ON BY THE ELEMENT	RELEVANT CONTROLS	WHO CONTROLS THE ELEMENT	WHO PROVIDES THE ELEMENT	WHO MAINTAINS THE ELEMENT
PUBLIC FURNITURE	PUBLIC CLOCKS	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of public clocks ▪ position of public clocks 	<ul style="list-style-type: none"> ▪ City Planning (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ City Planning ▪ Private sector (within privately managed development precincts or in return for advertising rights) 	<ul style="list-style-type: none"> ▪ Private sector (within privately managed development precincts or in return for advertising rights)
	FUN FEATURES AND APARATUSSES	<ul style="list-style-type: none"> ▪ liveliness (these features attract people and generate activity) ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of features ▪ position of features 	<ul style="list-style-type: none"> ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ City Planning ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts)
	PARKING METERS	<ul style="list-style-type: none"> ▪ attractiveness (well designed public furniture contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of parking meters ▪ position/spacing of parking meters 	<ul style="list-style-type: none"> ▪ Metro Police (functional aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Metro Police 	<ul style="list-style-type: none"> ▪ Metro Police
	PLANTING RELATED FURNITURE AND ACCESSORIES	<ul style="list-style-type: none"> ▪ attractiveness (well designed public furniture and accessories contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of planters, tree grids, tree protectors and other planting related public furniture and accessories ▪ position of planting related public furniture and accessories 	<ul style="list-style-type: none"> ▪ Environmental Management and City Planning (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ City Planning ▪ Private sector 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ Private sector
STREETSCAPE STRUCTURES	BUS AND TAXI SHELTERS	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public facilities and amenities contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of shelters ▪ position of shelters 	<ul style="list-style-type: none"> ▪ Transport (functional aspects) ▪ City Planning (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Transport ▪ Private sector (in return for advertising rights) 	<ul style="list-style-type: none"> ▪ Transport ▪ Private sector (in return for advertising rights)
	TELEPHONE BOOTHS	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public facilities and amenities contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of booths ▪ position of booths 	<ul style="list-style-type: none"> ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Telkom 	<ul style="list-style-type: none"> ▪ Telkom
	VENDING KIOSKS, STALLS AND RELATED STORAGE FACILITIES	<ul style="list-style-type: none"> ▪ liveliness (market areas attract people and generate activity) ▪ attractiveness (well designed public facilities and amenities contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of facilities ▪ position of facilities 	<ul style="list-style-type: none"> ▪ Local Economic Development (functional aspects) ▪ City Planning (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Local Economic Development ▪ City Planning ▪ Private sector (within privately managed precincts) ▪ Vendors 	<ul style="list-style-type: none"> ▪ Local Economic Development ▪ Private sector (within privately managed precincts) ▪ Vendors
	BANDSTANDS AND PAVILIONS	<ul style="list-style-type: none"> ▪ liveliness (these features generate activity and thereby attract people) ▪ attractiveness (well designed public facilities and amenities contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of structures ▪ position of structures 	<ul style="list-style-type: none"> ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ City Planning ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts)

STREETScape ELEMENT		STREETScape ASPECTS THAT ARE IMPACTED ON BY THE ELEMENT	RELEVANT CONTROLS	WHO CONTROLS THE ELEMENT	WHO PROVIDES THE ELEMENT	WHO MAINTAINS THE ELEMENT
STREETScape STRUCTURES	ABLUTION FACILITIES	<ul style="list-style-type: none"> ▪ comfort and safety ▪ attractiveness (well designed public facilities and amenities contribute to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of facilities ▪ position of facilities 	<ul style="list-style-type: none"> ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Local Economic Development (within markets) ▪ Transport (within public transport facilities) ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Transport ▪ Private sector (within privately managed precincts)
		<ul style="list-style-type: none"> ▪ attractiveness (plants provide welcome contrast to buildings and paved areas, freshness and colour; trees also contribute to the spatial definition of a street or square) ▪ comfort and safety (shade) ▪ legibility (formal rows of street trees lining the street suggest the importance of the route) 	<ul style="list-style-type: none"> ▪ tree species ▪ position/spacing of trees 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ City Planning ▪ Private sector 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ Private sector
PLANTING	GROUND COVERS, FLOWERS AND OTHER PLANTS	<ul style="list-style-type: none"> ▪ attractiveness (plants provide welcome contrast to buildings and paved areas, freshness and colour) 	<ul style="list-style-type: none"> ▪ layout of 'soft' (green) areas ▪ plant species and landscape design 	<ul style="list-style-type: none"> ▪ Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ City Planning ▪ Private sector 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ Private sector
	STREET TREES	<ul style="list-style-type: none"> ▪ attractiveness (plants provide welcome contrast to buildings and paved areas, freshness and colour; trees also contribute to the spatial definition of a street or square) ▪ comfort and safety (shade) ▪ legibility (formal rows of street trees lining the street suggest the importance of the route) 	<ul style="list-style-type: none"> ▪ tree species ▪ position/spacing of trees 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ City Planning ▪ Private sector 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ Private sector
OBJECTS OF ART, SYMBOLS AND DECORATIONS	SYMBOLIC OR DECORATIVE STRUCTURES	<ul style="list-style-type: none"> ▪ legibility (these elements regularly mark important routes and nodes) ▪ attractiveness 	<ul style="list-style-type: none"> ▪ types and designs of structures ▪ position of structures 	<ul style="list-style-type: none"> ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ City Planning ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts)
	STATUES AND OTHER COMMEMORATIVE FEATURES	<ul style="list-style-type: none"> ▪ legibility (these elements regularly mark important routes and nodes) ▪ attractiveness 	<ul style="list-style-type: none"> ▪ types and designs of features ▪ position of features 	<ul style="list-style-type: none"> ▪ Social Development (symbolism and commemorative aspects) ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Social Development ▪ Environmental Management (within green open spaces) ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Environmental Management (within green open spaces) ▪ Private sector (within privately managed precincts)
	WATER FEATURES	<ul style="list-style-type: none"> ▪ legibility (these elements regularly mark important routes and nodes) ▪ attractiveness 	<ul style="list-style-type: none"> ▪ types and designs of features ▪ position of features 	<ul style="list-style-type: none"> ▪ City Planning and Environmental Management (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Environmental Management ▪ Private sector (within privately managed precincts)
	OBJECTS OF ART	<ul style="list-style-type: none"> ▪ attractiveness ▪ liveliness 	<ul style="list-style-type: none"> ▪ types and designs of features ▪ position of features 	<ul style="list-style-type: none"> ▪ City Planning (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Private sector (within privately managed precincts)
	OBJECTS OF ART	<ul style="list-style-type: none"> ▪ attractiveness ▪ liveliness 	<ul style="list-style-type: none"> ▪ types and designs of features ▪ position of features 	<ul style="list-style-type: none"> ▪ City Planning (design aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ City Planning ▪ Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> ▪ Private sector (within privately managed precincts)

STREETSCAPE ELEMENT		STREETSCAPE ASPECTS THAT ARE IMPACTED ON BY THE ELEMENT	RELEVANT CONTROLS	WHO CONTROLS THE ELEMENT	WHO PROVIDES THE ELEMENT	WHO MAINTAINS THE ELEMENT
OBJECTS OF ART, SYMBOLS AND DECORATIONS	FLAGS AND BANNERS	<ul style="list-style-type: none"> attractiveness liveliness (banners often contribute to the liveliness of a space) legibility (flags normally mark important routes or nodes) 	<ul style="list-style-type: none"> types and designs of flag/banner poles position of flag/banner poles design of banners and flags 	<ul style="list-style-type: none"> City Planning (design and outdoor advertising aspects) Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> City Planning Environmental Management (within green open spaces) Private sector (within privately managed precincts or in return for advertising rights) 	<ul style="list-style-type: none"> Environmental Management (within green open spaces) Private sector (within privately managed precincts)
	SPECIAL/FESTIVE DECORATIONS	<ul style="list-style-type: none"> attractiveness liveliness 	<ul style="list-style-type: none"> types and designs of decorations position of decorations 	<ul style="list-style-type: none"> City Planning and Environmental Management (design aspects) Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> Electricity (light decorations) Environmental Management (flowers and other decorative plants) Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> Electricity (light decorations) Environmental Management (flowers and other decorative plants) Private sector (within privately managed precincts)
SERVICE INFRASTRUCTURE	OVERHEAD POWER AND TELEPHONE LINES	<ul style="list-style-type: none"> attractiveness (exposed elements of service infrastructure may impact negatively on the appearance of a street or square, unless they are carefully placed and designed) 	<ul style="list-style-type: none"> types and designs of power lines, poles and pylons position of poles and pylons 	<ul style="list-style-type: none"> Electricity and Telkom (functional aspects) Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> Electricity Telkom 	<ul style="list-style-type: none"> Electricity Telkom
	SUBSTATIONS, TRANSFORMERS, DISTRIBUTION BOXES, ETC.	<ul style="list-style-type: none"> attractiveness (exposed elements of service infrastructure may impact negatively on the appearance of a street or square, unless they are carefully placed and designed) comfort and safety (if these elements are placed in the way of pedestrians than can compromise their comfort and safety) 	<ul style="list-style-type: none"> types and designs of elements position of elements 	<ul style="list-style-type: none"> Electricity (functional aspects) Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> Electricity 	<ul style="list-style-type: none"> Electricity
	TRAFFIC LIGHT CONTROL BOXES	<ul style="list-style-type: none"> attractiveness (exposed elements of service infrastructure may impact negatively on the appearance of a street or square, unless they are carefully placed and designed) comfort and safety (if these elements are placed in the way of pedestrians than can compromise their comfort and safety) 	<ul style="list-style-type: none"> types and designs of elements position of elements 	<ul style="list-style-type: none"> Roads and Stormwater (functional aspects) 	<ul style="list-style-type: none"> Roads and Stormwater 	<ul style="list-style-type: none"> Roads and Stormwater
	CCTV CAMERAS	<ul style="list-style-type: none"> comfort and safety attractiveness (exposed elements of service infrastructure may impact negatively on the appearance of a street or square, unless they are carefully placed and designed) 	<ul style="list-style-type: none"> types and designs of elements position of elements 	<ul style="list-style-type: none"> Metro Police (functional aspects) Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> Metro Police Private sector (within privately managed precincts) 	<ul style="list-style-type: none"> Metro Police Private sector (within privately managed precincts)

STREETScape ELEMENT		STREETScape ASPECTS THAT ARE IMPACTED ON BY THE ELEMENT	RELEVANT CONTROLS	WHO CONTROLS THE ELEMENT	WHO PROVIDES THE ELEMENT	WHO MAINTAINS THE ELEMENT
SERVICE INFRASTRUCTURE	WATER METERS	<ul style="list-style-type: none"> ▪ attractiveness (exposed elements of service infrastructure may impact negatively on the appearance of a street or square, unless they are carefully placed and designed) ▪ comfort and safety (if these elements are placed in the way of pedestrians than can compromise their comfort and safety) 	<ul style="list-style-type: none"> ▪ types and designs of water meters ▪ position of water meters 	<ul style="list-style-type: none"> ▪ Water and Sanitation (functional aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Water and Sanitation 	<ul style="list-style-type: none"> ▪ Water and Sanitation
	WATER HYDRANTS AND TAPS	<ul style="list-style-type: none"> ▪ attractiveness (exposed elements of service infrastructure may impact negatively on the appearance of a street or square, unless they are carefully placed and designed) ▪ comfort and safety (if these elements are placed in the way of pedestrians than can compromise their comfort and safety) 	<ul style="list-style-type: none"> ▪ types and designs of hydrants ▪ position of hydrants 	<ul style="list-style-type: none"> ▪ Water and Sanitation and Community Safety (functional aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Water and Sanitation ▪ Community Safety 	<ul style="list-style-type: none"> ▪ Water and Sanitation ▪ Community Safety
	WATER DRAINS AND MANHOLE COVERS	<ul style="list-style-type: none"> ▪ attractiveness (exposed elements of service infrastructure may impact negatively on the appearance of a street or square, unless they are carefully placed and designed) ▪ comfort and safety (if these elements are placed in the way of pedestrians than can compromise their comfort and safety) 	<ul style="list-style-type: none"> ▪ types and designs of elements ▪ position of elements 	<ul style="list-style-type: none"> ▪ relevant service delivery department – Water and Sanitation, Electricity or Roads and Stormwater – or Telkom (functional aspects) ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ relevant service delivery department – Water and Sanitation, Electricity or Roads and Stormwater – or Telkom 	<ul style="list-style-type: none"> ▪ relevant service delivery department – Water and Sanitation, Electricity or Roads and Stormwater – or Telkom
SIGNAGE	INFORMATIONAL AND DIRECTIONAL SIGNAGE	<ul style="list-style-type: none"> ▪ comfort and safety ▪ legibility (good informational and directional signage enhances the orientation within the urban environment) ▪ attractiveness (well designed signage contributes to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of signs ▪ position of signs 	<ul style="list-style-type: none"> ▪ Roads and Stormwater (only the signage along roads aimed at motorists) 	<ul style="list-style-type: none"> ▪ Roads and Stormwater ▪ Private sector 	<ul style="list-style-type: none"> ▪ Roads and Stormwater ▪ Private sector
	TRAFFIC SIGNS AND SIGNALS	<ul style="list-style-type: none"> ▪ comfort and safety ▪ legibility ▪ attractiveness (well designed signage contributes to the overall attractiveness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of signs ▪ position of signs 	<ul style="list-style-type: none"> ▪ Roads and Stormwater ▪ Metro Police 	<ul style="list-style-type: none"> ▪ Roads and Stormwater 	<ul style="list-style-type: none"> ▪ Roads and Stormwater
	ADVERTISING STRUCTURES AND ADVERTISEMENTS	<ul style="list-style-type: none"> ▪ attractiveness (well designed signage contributes to the overall attractiveness of a space, while crude and aggressive advertising may make a space less attractive) ▪ liveliness (advertisements' colour and light may add to the liveliness of a space) 	<ul style="list-style-type: none"> ▪ types and designs of advertising structures and advertisements ▪ position of advertising structures and advertisements ▪ contents of advertisements 	<ul style="list-style-type: none"> ▪ City Planning ▪ Roads and Stormwater (traffic safety aspects and way leave approval) 	<ul style="list-style-type: none"> ▪ Private sector 	<ul style="list-style-type: none"> ▪ Private sector

Generic guidelines

All streetscape elements in Tshwane must be designed to –

- encourage and facilitate the use of public spaces;
- enhance the image of the city, its uniqueness, recognisability and ‘Africanness’; and
- contribute to the safety and security of the public (in conjunction with other crime prevention measures).

All streetscape elements must have inherent architectural, industrial, graphic, etc. design quality comparable to the best local and international contemporary design standards and practices.

Designs which reflect transient styles should generally be avoided. The application of such historically imitative designs may only be considered in certain precincts where it can be justified by the precinct’s overall urban design character and ambience or theme.

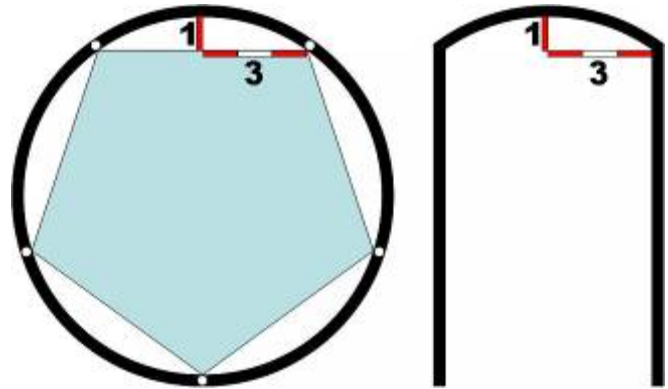
Streetscape elements must be robust and be made of durable materials, ie they must be able to withstand frequent use, weathering and vandalism without loss of design quality. Furthermore, they must be designed for low maintenance.

All public furniture must be designed in a way that any anti-social behaviour (such as hiding of potential muggers, loitering and urinating outside designated facilities) is discouraged.

Wherever possible and reasonable, or otherwise required by the overall urban design character, ambience or theme of a particular precinct, metal components of streetscape elements should be painted dark green (“black green”), ie the colour of the existing streetscape elements along the Church Street pedestrian mall.

Streetscape elements may be designed to accommodate outdoor advertising, but only in accordance with the outdoor advertising by-laws.

Wherever possible and reasonable, streetscape element designs should, in a creative way, incorporate an arch as illustrated and specified in the two figures below, which has become a distinctive feature of some of Tshwane’s public furniture.



The "Tshwane arch" is defined as 1/5 of the full circle or as an arch the height of which equals 1/6 of its base.








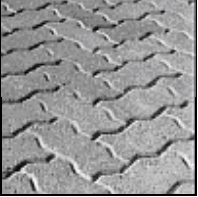
An illustration of the application of the "Tshwane arch"

Wherever applicable, all streetscape elements, their components and materials used to manufacture them must conform to SABS standards.

Streetscape elements must also be used to ensure recyclability and, where applicable, maximum efficiency in energy use. All materials used must be non-toxic to the natural environment.

Surfacing materials and patterns

Standard paving materials for Tshwane's hard urban spaces are the following:

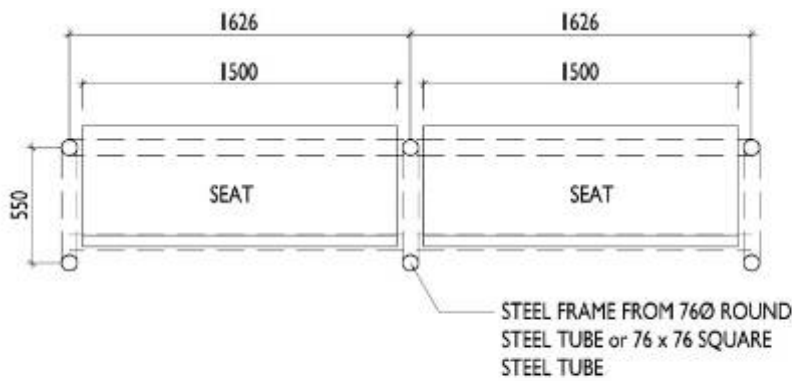
PAVING MATERIAL	DIMENSIONS [mm]	THICKNESS [mm]	COLOURS	APPLICATION	IMAGE
CLAY ENGINEERING BRICK	222x106	73	terracotta, burgundy	exclusively pedestrian areas	
CONCRETE BRICK	200x100	50	natural, terracotta, burgundy		
CONCRETE PAVING BLOCK	450x450	50	natural		
EXPOSED AGREGATE CONCRETE PAVING BLOCKS	500x500	50	gray, pink		
IN SITU CONCRETE		100	natural		pedestrian areas with vehicular access
		150			
CONCRETE COBBLE	150x150	60	natural, red	pedestrian areas with vehicular access, pedestrian crossings, parking bays	
		80		roadways (at intersections)	
CONCRETE ZIG ZAG BLOCK	220x110	60	natural, red	pedestrian areas with vehicular access, pedestrian crossings, parking bays	
		80		roadways (at intersections)	

The above materials can be combined in different ways in order to achieve a variety of patterns and textures. These are only a few examples of what can be achieved:

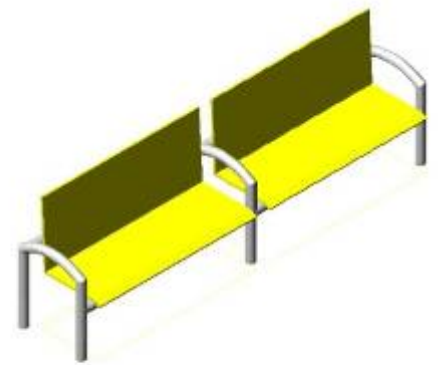


Seating facilities (benches)

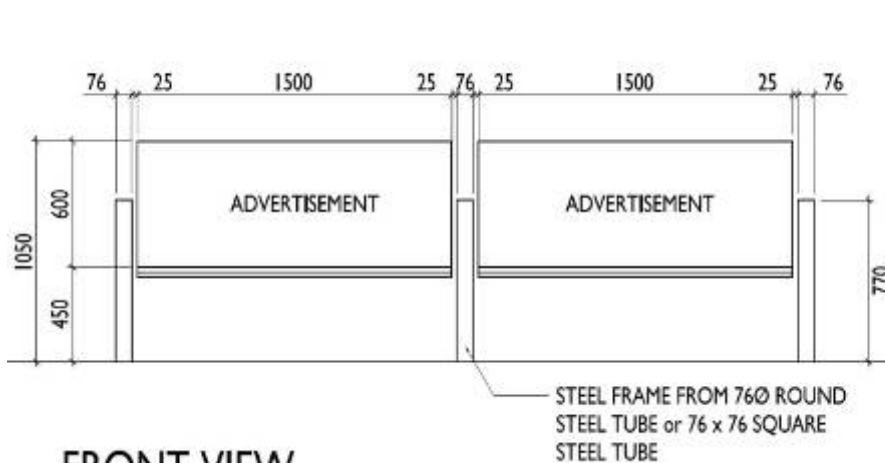
Single sided bench with back rest:



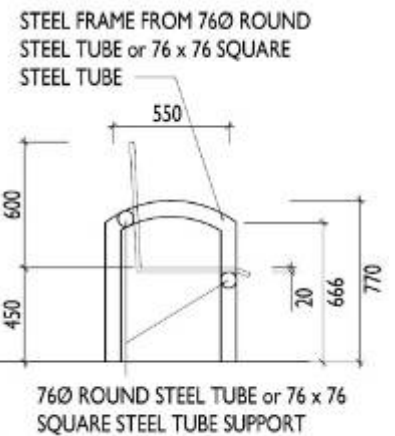
PLAN



3D

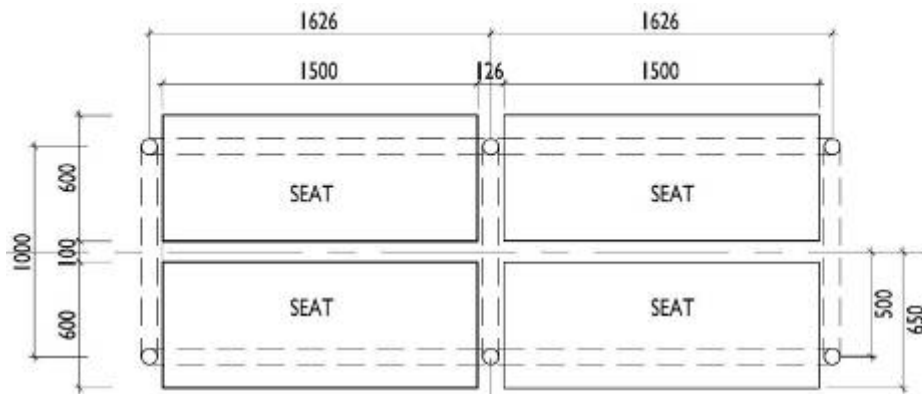


FRONT VIEW



SIDE VIEW

Double sided bench with back rest:

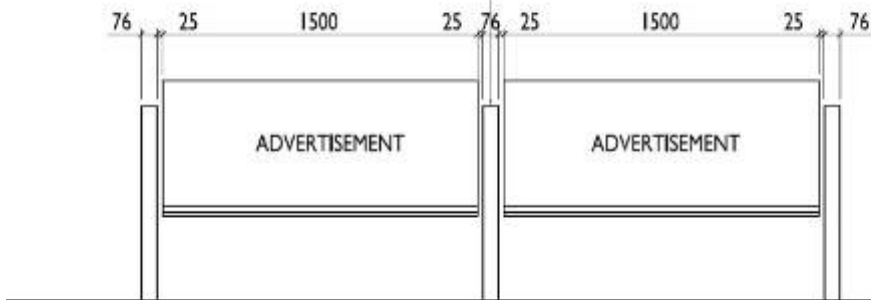


PLAN

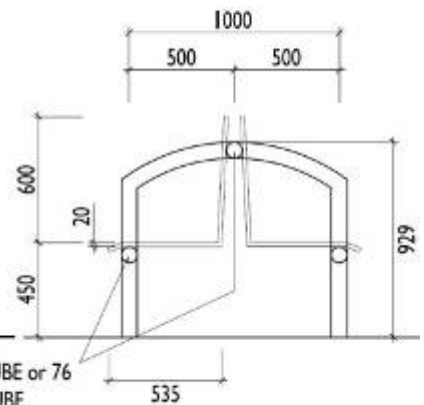


3D

STEEL FRAME FROM 76Ø ROUND STEEL TUBE or 76 x 76 SQUARE STEEL TUBE



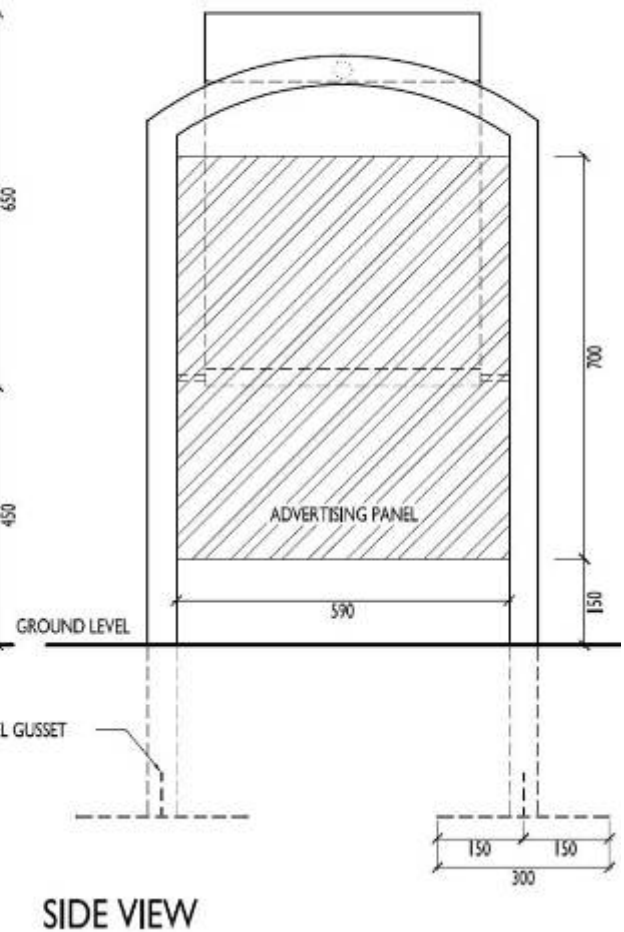
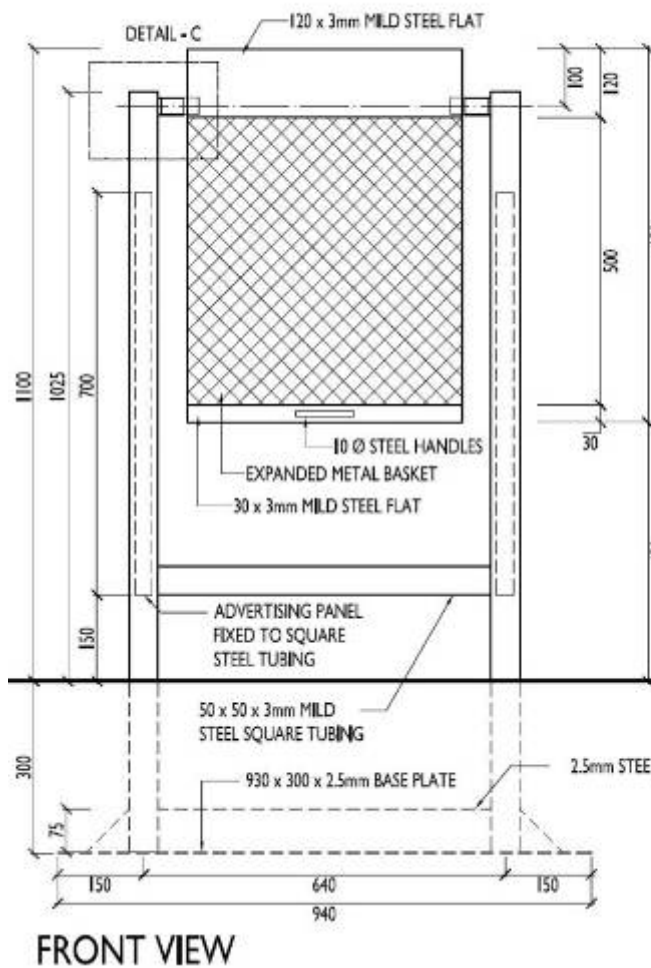
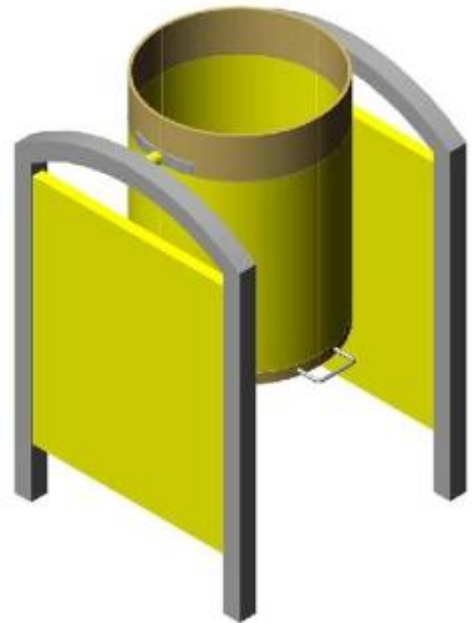
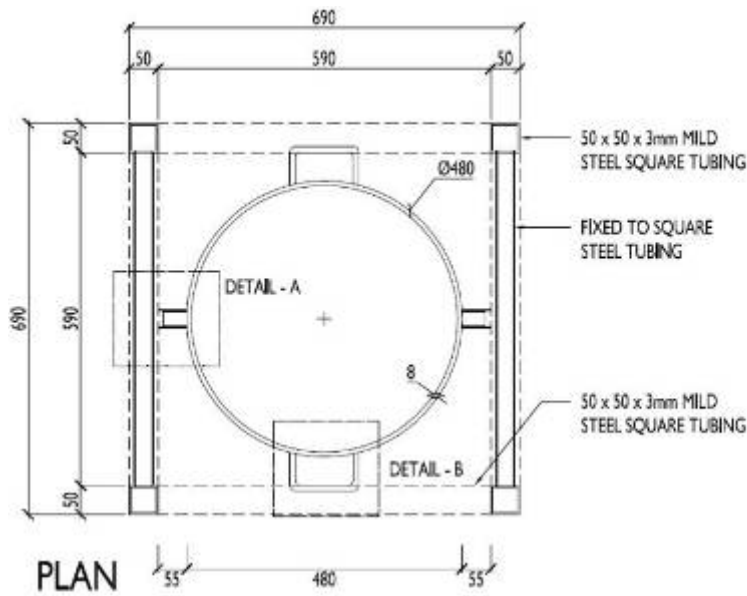
FRONT VIEW

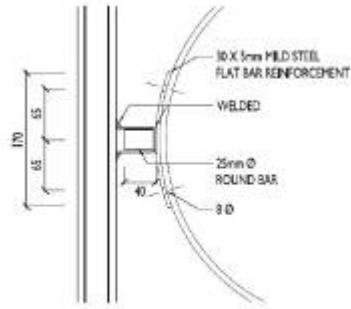


SIDE VIEW

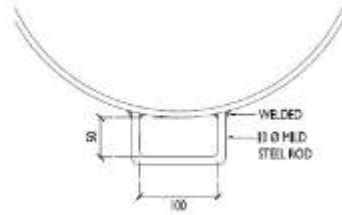
76Ø ROUND STEEL TUBE or 76 x 76 SQUARE STEEL TUBE SUPPORT

Litter receptacles

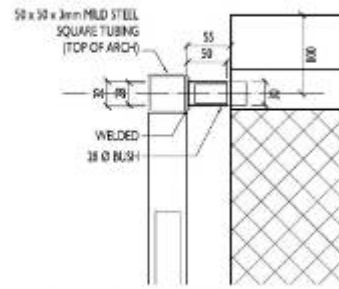




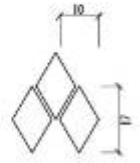
DETAIL - A (PIVOT)



DETAIL - B (HANDLE)



DETAIL - C (BUSH)



DETAIL OF EXPANDED METAL MESH

The receptacle must be able to hold a 750mm wide by 950mm long plastic bag.

All 50x50x3mm square tubing may be substituted by 3mm thick Ø50 circular tubing.

Bus and taxi shelters

General design requirements

The bus/taxi shelter must be designed as a piece of public furniture to be placed within Tshwane's public spaces in order to –

- identify the bus stop;
- ensure reasonable protection from the elements for people waiting for a bus or taxi;
- offer some seating facility;
- provide essential public transport information (e.g. the particulars of the route and time table); and
- provide space for outdoor advertising.

Apart from those generic design requirements for all streetscape elements in Tshwane (see Section “Generic guidelines” on page 58) the design of the bus/taxi shelter must have the following overall characteristics:

- easy access from pedestrian pathways to the shelter and from the shelter to the bus/taxi (people must be able to board the bus/taxi conveniently);
- visibility of the shelter and from the shelter (people must be able to find bus stops easily and, once within the shelter, they must be able to watch for oncoming buses without leaving the shelter);
- maximum comfort and convenience;
- modularity (the basic shelter structure should be designed in such a way that it can simply be multiplied or stacked where larger facilities are needed); and
- contemporaneity (the shelter should be designed in a contemporary design idiom and the use of technologically innovative materials, components and solutions is encouraged).

The design of the bus/taxi shelter must allow for contextualisation (customisation) depending on the location of the shelter. This means –

- firstly, that the design must be able to be manufactured in an up-market and a budget version; and
- secondly, that some parts of the shelter may have different appearance (shape, material, colour, texture, additional features, etc.) in different

locations in order to reflect the overall urban design character and ambience of that particular location.

The bus/taxi shelter must be designed in such a way that it can be simply transported from the place of manufacture to its final position, preferably in one piece. If demountable, the shelter must be easily assembled on site.

Side panels

All side panels must be mounted a minimum of 10cm off the ground so that debris does not collect inside the shelter.

The side panels must allow for the display of outdoor advertising. The advertising panels may be either plain or backlit. The design of the shelter must provide for both options.

The design of side panels must also allow for placing of stop, stage or terminus boards, as well as bus time-tables, route maps and notices concerning the bus service.

Roof and handling of rain water

The roof must be constructed of good quality, weather resistant and durable materials that will, structurally and aesthetically, complement the rest of the structure. Solar cells may be incorporated into the structure to provide the energy for lighting at night.

If the design of the shelter requires the provision of gutters and down pipes, they must be neatly concealed within the structure. Easily accessible and cleanable filters must be provided to prevent blockages by leaves, insects and debris.

Lighting

The bus/taxi shelter must be well lit at night for the safety and convenience of passengers and to prevent criminals from hiding within them. Light fittings within the shelter must be carefully placed to avoid casting of unwanted shadows and glare. These fittings must be housed in a protective casing to discourage vandalism.

Seating

Seating facilities (i.e. benches or leaning rails) must be provided within the shelter. They should be ergonomically designed to allow for comfortable seating, as well as to discourage sleeping and other forms of abuse by vagrants and vandals.

Accessories

All services and accessories (that may be added to the shelter immediately or addable in the future) must be well incorporated into the overall design of the structure and not simply attached as an afterthought.

Apart from already mentioned services and accessories (i.e. seating facilities, light fittings, signage, gutters and solar cells) the following may be considered:

- litter receptacles;
- electronic information terminals;
- drinking fountains;
- bicycle racks.

Floor

The floor of the bus shelter must have a hard surface that is dust- and mud-free and must be well drained.

The shelter must be bolted to the floor.

Ablution facilities

Location

The provision of public toilet facilities must be considered at the following locations:

- all main public transport termini and major car parks, eg railway stations, bus stations, taxi ranks, and inter-modal transfer nodes;
- markets, both informal markets and formal shopping areas with large numbers of small retail businesses which are not big enough to provide toilet facilities individually;
- parks, playgrounds recreational areas and sports fields;
- within urban cores (urban centres), particularly at civic and metropolitan facilities such as the municipal offices, museums, libraries, art galleries, public car parks, etc.;
- important tourist destinations;
- entertainment areas which accommodate activities involving the consumption of food and beverages, especially night time activities and where people are encouraged to stay for periods in excess of three hours; and
- communal service points in informal settlements.

Typology

Five basic toilet types (excluding portable toilets for occasional use, which are not subject of this Policy) can be considered within Tshwane:

- Type 1 – basic urinals provided for the urinary needs of men only – is suitable for all locations, particularly at public transport facilities, in urban cores, tourist destinations and entertainment areas;
- Type 2 – basic male and female toilets with hand washing facility – is suitable for all locations;
- Type 3 – public toilets with changing facilities and showers – is most suitable for recreational and sports facilities;
- Type 4 – public toilets with ancillary bathing and clothes washing facility – should be provided wherever private ablution facilities are insufficient, eg in informal settlements;

- Type 5 – facilities that cater for the specific needs of tourists and could include showers and changing rooms – should be provided at important tourist destinations and within urban cores.

Quantity

When determining the capacity of public toilet facilities within public urban spaces (in urban cores, parks, markets, etc.) international experience must be noted as the South African National Building Regulations contain no standard requirements for toilet facilities in public urban spaces.

Here are some vague indications of standards applied internationally:

- The fact that the ratio of public toilets is below 1 toilet per 1000 people is a reason for concern in Great Britain.
- In New Zealand the ratio of public toilets ranges between 2 and 10 toilets per 10 000 people, with an average of 4.
- In Australia some municipalities propose a service level of 1 public toilet per 500 people.

For every 2 water closets and urinals provided for men 3 water closets must be provided for women.

In informal settlements 1 communal toilet must be provided per 20 dwelling units or 110 people and 1 communal bathhouse for a maximum of 50 dwelling units or 275 people.

As a general principle more basic facilities than sophisticated ones should be provided (e.g. one Type 5 facility should be provided for every 50 Type 1 facilities).

Siting

Public toilets are best located in active (busy) areas and in prominent positions where they can be seen from adjoining streets and buildings as this greatly reduces vandalism and crime. It is particularly important that the entrances to public toilets are clearly visible from the busiest parts of adjoining urban spaces. Under no circumstances should the entrances be shielded from public view. Soft landscaping may and should be used, where possible, to dictate pedestrian movements and

enhance the site, but it must not be allowed to conceal entrances to the facilities.

When public toilet facilities are placed within the road reserve the following must be taken into account:

- the facilities must not impede on pedestrian movement and safety;
- the facilities must not encourage the crossing of roads by pedestrians at uncontrolled positions;
- at least 3 meters clearance between facility and roadway must be provided;
- the position of services must be considered.

The position of municipal services, particularly the existing municipal sewers, must be taken into consideration when locating a public toilet facility.

Communal service points in informal settlements must be within 1,5 to 4 minutes walking distance (75-200m) of residents. In these instances facilities should be placed in such a way that they can be incorporated into future formal development of the area.

Integration of facilities

Wherever possible and reasonable public toilet facilities should be combined with the following facilities and amenities in order to increase their functionality, usage and safety:

- dedicated and appropriately equipped baby change facilities in both male and female toilets;
- children's toilets;
- special facilities for the handicapped;
- changing rooms;
- showers;
- public telephones;
- resting area;
- clothes washing facilities
- community information boards;
- tourist information counter;
- left luggage facilities;
- newspaper and/or cigarettes vending kiosk;
- storage facility for informal traders; etc.

Servicing of facilities

All connections to municipal services (eg water, sewer and electricity) must be done in accordance with the standards and specifications set by the municipal department responsible for each particular service.

Structure, finishes, access and layout

Toilet buildings should be of a scale, style and colour scheme that is appropriate for the setting and should be designed to be more open and inviting. As they have to be prominent and located in active (busy) areas they must be designed as an integral part of the streetscape and, preferably, as special features within the streetscape.

For environmental reasons the use of recycled or renewable materials should be considered for the construction of public toilets.

Entrances should be highly visible and face active (busy) spaces.

Entrances for men and women must be separated.

Entrances should be of a suitable size to allow access for people with disabilities and adults with prams and children.

Access for the disabled and wheelchairs needs to be ensured. The toilets should be designed to allow caregivers, including those providing assistance to members of the opposite sex, to provide assistance and supervision.

Walls should be robust with impact, weather and graffiti resistant finishes that can be easily cleaned (for example ceramic tiled interiors with graffiti resistant coated grouting).

Floors must be easy to clean with non-slip surfaces and evenly sloped to assist drainage and cleaning.

The number of corners, columns and other features which restrict surveillance or allow for the concealment of persons or items must be minimised.

The following features may further enhance the safety and comfort of the facilities:

- self-contained cubicles with hand washing facilities;
- cubicles accessible directly from public space (no common foyer or hand washing area);
- cubicles on single frontage if there is more than one cubicle.

Fixtures

Public toilets and their immediate surroundings must be well lit. High mounted and vandal resistant lighting that is consistent with the light levels around the building should be provided so that users do not have to move in and out of different light levels. Any glare must be avoided.

Lighting sensor controls should be hidden from view or positioned where access is difficult.

To enhance the safety of the facilities, particularly those that are less prominent or less visible from busy public spaces, monitoring of the entrances by means of CCTV should be considered.

Sanitary appliances and fittings installed in public toilets should be of heavy duty classification and quality.

All fixtures should be inset or protected with protective casings wherever possible to limit the potential for vandalism.

Drug-related issues can be addressed by ensuring that there are no places for hiding drugs and needles or surfaces for preparing drugs. The provision of drug needle chutes from cubicles directly into collection bins in the service area should also be considered.

The reduction of water consumption can be achieved by use of:

- sensor controlled taps;
- rainwater harvesting systems to collect water for flushing;
- urinal flush control valves; and
- waterless urinals.

The reduction of electricity consumption can be achieved by use of:

- low energy light bulbs;
- sensor controlled lighting;
- effective natural lighting;
- solar water heating;
- photo-voltaic cells;
- wind generated electricity; and
- high levels of thermal insulation.

Public toilet interiors must be well ventilated. The structure may be designed in such a way that it allows for natural ventilation.

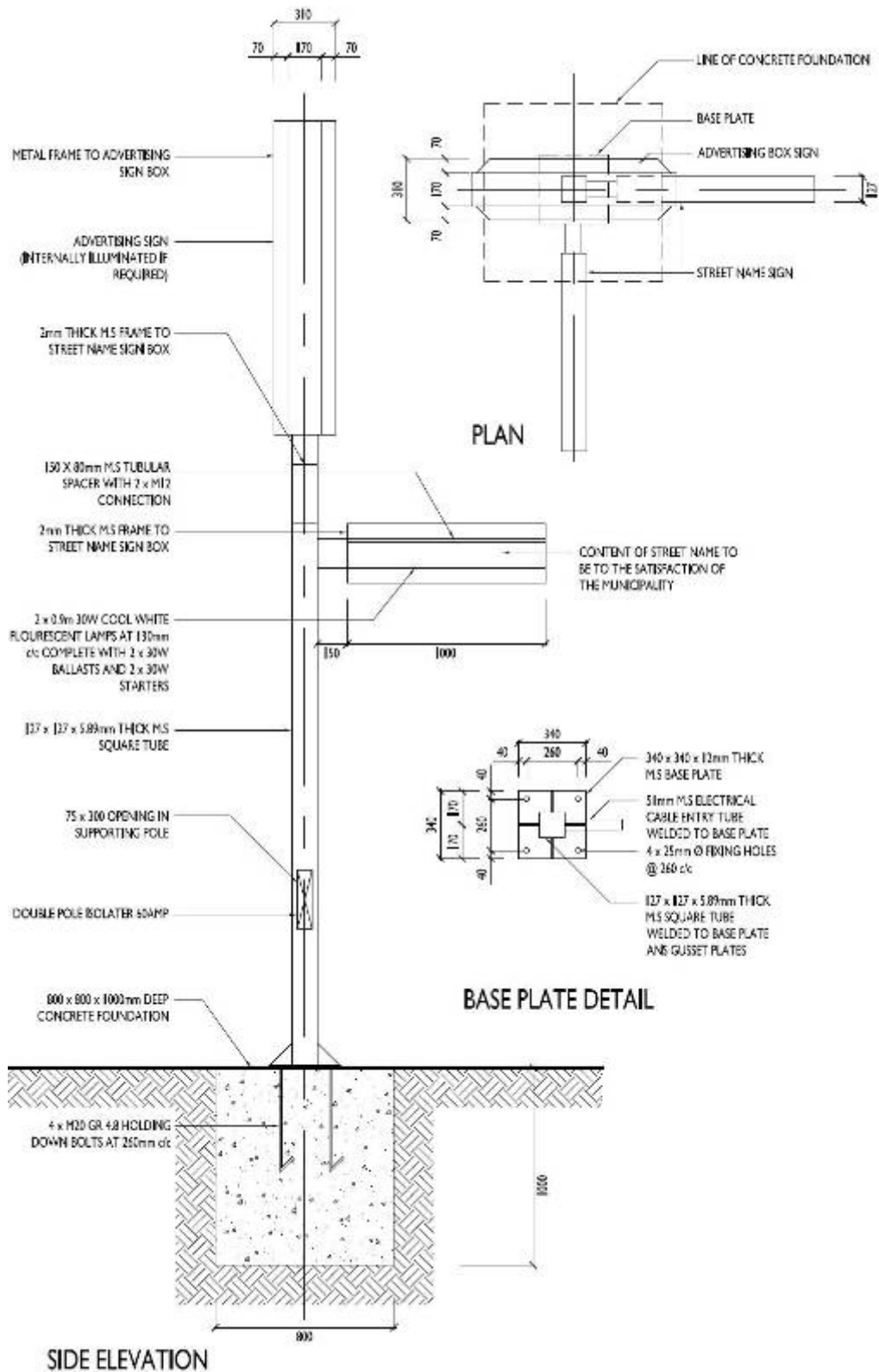
Lever handles or push open doors should be used rather than ball handles.

Signage

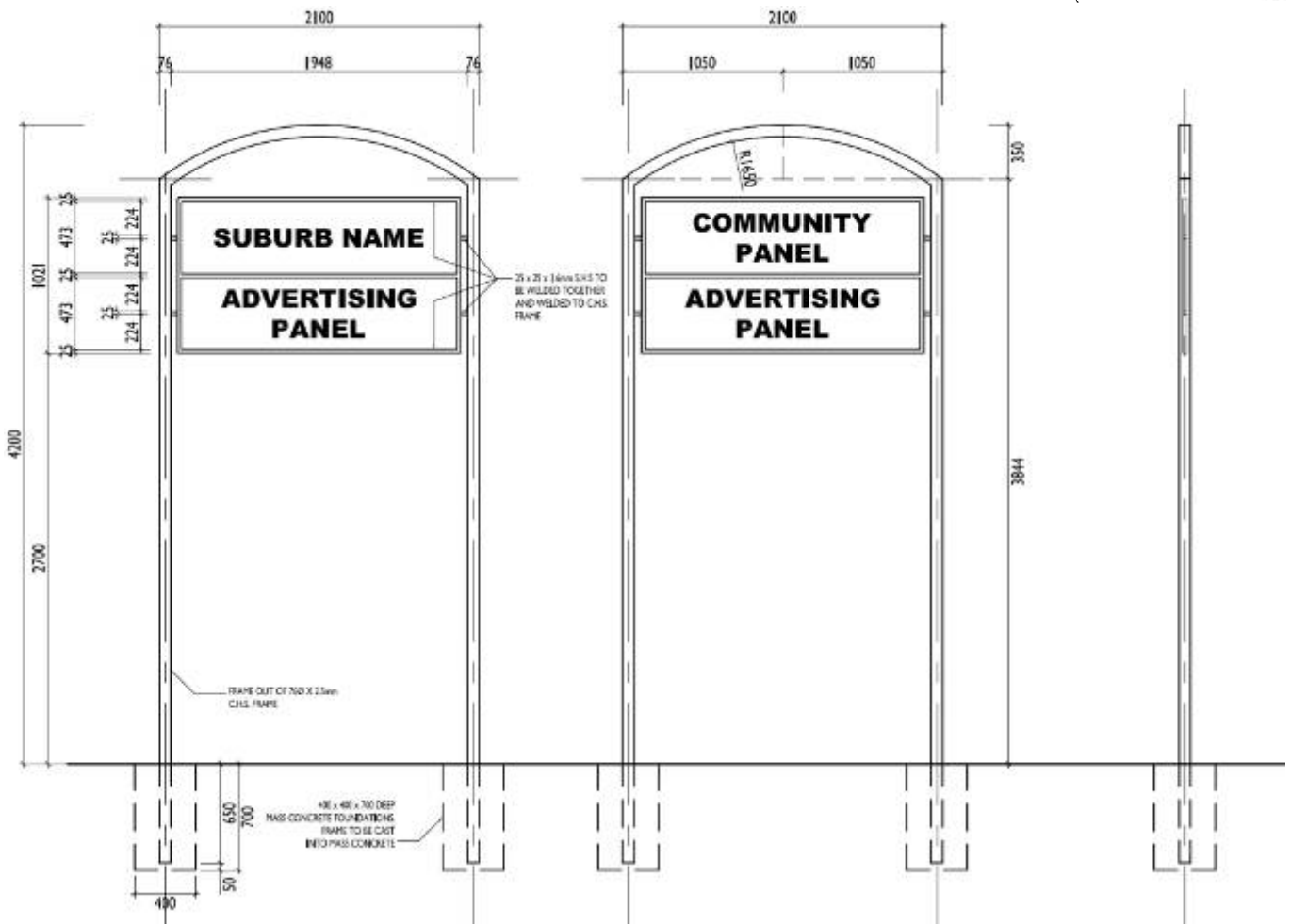
Signage indicating the vicinity of toilets should be put up in numerous locations within 200 metres of each facility so that all public toilets can be easily found and clearly identified.

The following should be taken into consideration:

- All textual information must be provided in a range of languages in accordance with the Municipality's language policy.
- All facilities should use standard international signage where instructions on how to use the facility are provided by means of diagrams and images rather than words.
- Signage in Braille should also be considered.
- Signage must show:
 - name of the facility and/or its location;
 - gender designation;
 - opening hours;
 - location of the nearest alternative facility and its opening hours;
 - emergency numbers and the number for reporting all damages and maintenance related problems;
 - indication of cleaning times (so that the public is aware how many times and when cleaning of facilities will occur).



Suburb name signs



Outdoor advertising structures

An advertising structure is any physical structure, such as a pylon or gantry, built to display an advertisement.

An advertising structure should not -

- be pretentious;
- pretend to be a symbolic streetscape element, such as a gateway marker;
- interfere with any symbolic streetscape elements as this could confuse the city's legibility and diminish the symbolic value of these elements.

The purpose of an advertising structure is to carry an advertisement. The advertisement, not the supporting structure, should attract attention. The structure must therefore not be overwhelming in terms of its general design characteristics, size or colour.

An advertising structure generally comprises the following elements:

- base – (E);
- vertical and horizontal structural (carrying) element(s) – (D);
- advertisement frame – (B) with the “Tshwane arch” – (A); and
- supplementary elements – (C).

Base

The base must be finished or clad with maintenance free materials such as tiles, bricks, stone or concrete. In areas with significant pedestrian activity the base can incorporate a public amenity (such as a bench).

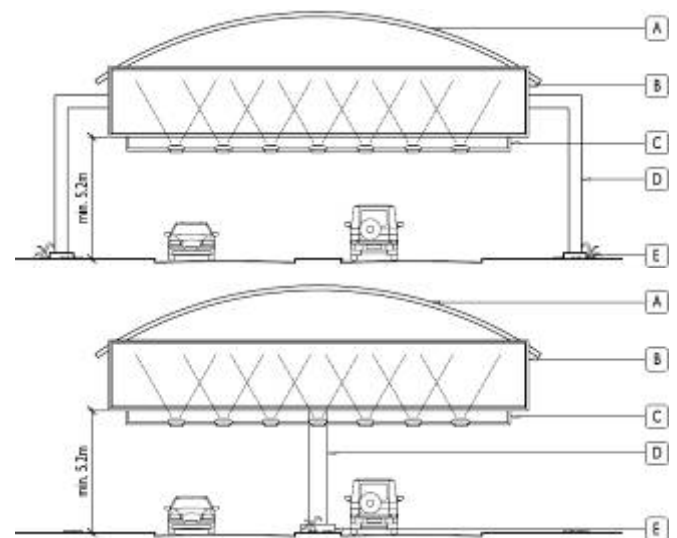
The immediate surroundings of the base is the area within a radius of 4m around the centre of the base. Depending on the context, this area must be paved or landscaped with maintenance free materials or ground covers.

Vertical and horizontal structural (carrying) elements

All structural (carrying) elements must appear as light as possible. Single, solid elements should thus be

avoided or, at least, articulated by means of indentations, alternating materials, textures and colours. Alternatively, composite structural elements (ie elements consisting of multiple smaller or slenderer parts) should be used.

Hollow section structural members, such as tubing, are preferred to solid section members (such as angle sections) for all visible metal elements of an advertising structure.



Advertisement frame

The advertisement frame must also be as unobtrusive as possible. It must appear simple and neat from both sides (front and back) and even at the time when no advertisement is being displayed.

The top part of the advertisement frame must be designed to accommodate the “Tshwane arch” as described in Section “Generic guidelines” on page 58.

Supplementary elements

Supplementary elements include catwalk, as well as electrical and illumination fittings. These should be well incorporated in the overall design of the advertising structure so that they cannot be perceived as an addition or as an after-thought.