

6.0. FINDINGS

6.1 KEY CHALLENGES

6.2 SWOT ANALYSIS

6.3 SUMMARY

6.3.1 SUMMARY

6.3.2 STAKEHOLDER PARTICIPATION SUMMARY

6.3.3 EXISTING PLANS AND PROPOSALS SUMMARY

6.1 Key Challenges

Drawing upon the combined information collected during on-site observation and analysis, stakeholder meetings and engagements as well the desktop study undertaken of existing relevant documentation, the following key challenges pertaining the ICEG Study Area have been identified:

1. **Residential Densification** is occurring informally & horizontally;
2. A chronic **Housing shortage** is evident, particularly for low income groups;
3. Insufficient **Social Infrastructure** exists to meet growing demand;
4. The **Streetscape** is car dominated and non-supportive of walkability and Non-Motorised Transport;
5. Insufficient usable **Green Space** exists, much of the existing open space system being inaccessible and residual in character;
6. Numerous **Urban Management** failures are apparent, with crime, litter, and lack of infrastructure maintenance and by-law enforcement frequently highlighted by stakeholders.

6.2 Swot Analysis



Figure 130 : Functional Areas

Functional Areas

1. Ellis Park
2. Betrams
3. Kensington
4. City & Suburban / Troyeville
5. Jeppestown

6.0 FINDINGS

1. ELLIS PARK	
<p>STRENGTHS</p> <ul style="list-style-type: none"> • Dominated by light/medium industrial and manufacturing sector • Predominant land uses are institutional, business and commercial. • The area is highly accessible, being well served by public and private transportation, rail, bus, BRT and taxis. • Close proximity to the C.B.D. 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • The area has experienced significant urban decay, which has undermined the potential of existing educational, sporting and cultural facilities. • Economic and physical degradation in New Doornfontein is particularly acute • Shortage of usable open spaces • Labour force primarily comprises low or unskilled workers • Parking shortage on event days
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Downstream economic opportunities linked to sports/events venues. • Vibrant light manufacturing sector offers opportunity for expansion • Building typologies well suited to mixed use redevelopment • Potential to extend bustling streetscape • Consolidate and optimise sporting facilities to accommodate medium density residential/ 	<p>THREATS</p> <ul style="list-style-type: none"> • Little residential occupation or diversification of types of dwellings. • Sterile, residual public environment on non-event days • Insufficient urban management, resulting in crime, dirty, derelict buildings, lack of maintenance

2. BERTRAMS	
STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Numerous buildings of heritage significance and attractive tree-lined streetscape • Area has a strong sense of community and attracts many residents from the creative industry including musicians, artists and crafts-people • A diverse mix of residential typologies and tenures 	<ul style="list-style-type: none"> • Signs of illegal and informal accommodation in backyards of existing houses. • Social and engineering infrastructure is insufficient to meet demand of growing population • Streetscape, public environment and open spaces are not configured to meet the needs of the current user profile (lower-income, non-car owning, younger, more transient population) • Insufficient low-income housing provision outside of informal backyard shack dwellings
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Good access to inner city and various public transportation methods (walking distance to the C.B.D. and to the Rea Vaya BRT service on Bertrams Road) • Subject to better urban management and by-law enforcement, Bertrams offers strong potential for private sector investment and upgrading by small scale developers and owner-occupiers • Vibrant light manufacturing sector in Lorentzville offers opportunity for expansion 	<ul style="list-style-type: none"> • The negative impact of uncontrolled and poorly managed backyard shack farming • Safety and security problems, particularly linked to the drugs trade • Insufficient urban management, resulting in crime, dirty, derelict buildings, lack of maintenance, particularly in relation to City owned residential properties, open spaces and vacant sites
3. KENSINGTON	
STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Stable middle to high income residential neighbourhood • Dramatic views towards the inner city from the north side of the ridge • Good accessibility both to the inner city and eastwards towards the airport and Ekurhuleni • Proximity to schools 	<ul style="list-style-type: none"> • Unmanaged residual open space along the Kensington ridge poses security problems • Truncated street grid and gated suburbs cut the area off from its surroundings (the latter implemented in response to security problems)
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Potential for mixed use development, higher density residential development and increase of business activities along Albertina Sisulu Road • Potential for Guesthouse and B&B development, leveraging on ease of access to/from the airport and proximity to the C.B.D., Ellis Park venues and Maboneng • Recreational potential of the ridge if properly upgraded and managed 	<ul style="list-style-type: none"> • Relatively low residential density will pose a challenge to the long-term sustainability of BRT operations

6.0 FINDINGS

4. CITY & SUBURBAN / TROYEVILLE	
<p>STRENGTHS</p> <ul style="list-style-type: none"> • Accessibility provided by PRASA rail link and nearby Rea Vaya BRT services • Robust C.B.D. street grid extension and building stock that is easily adaptable to multiple use types • Close proximity to the C.B.D. • Regenerative effect of the Maboneng and Bjala precincts • Unique asset in the Mai Mai Market 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • High levels of poverty • Insufficient low-income housing provision resulting in informal and illegal accommodation • Unplanned higher residential densities occurring informally are increasing stress on municipal services <ul style="list-style-type: none"> ◦ Informal/illegal occupation of buildings ◦ Informal settlements ◦ Homeless/rough sleepers • Struggling light industrial sector west of the railway line • Limited opportunities for migrants
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Repurposing of properties offering opportunities for new entrants to the property market • Unutilised properties provide opportunity for new developments catered for the housing demand in the area. • Improved investment climate in pockets around Maboneng and Bjala precincts • Dynamic informal accommodation market indicates untapped demand for low-income housing • Potential positive impact of an upgraded and well-integrated Wolhuter Hostel precinct • Opportunities for brownfield development on Kazerne site 	<p>THREATS</p> <ul style="list-style-type: none"> • A stressed built form due to informal/horizontal densification • Weak property ownership systems and weak property management • Inadequate engineering services • Insufficient urban management, resulting in crime, dirty, derelict buildings, lack of maintenance • Negative impact of messy industrial activity (e.g. scrapyards, recycling) • Lack of integration between Wolhuter Hostel dwellers and other sections of the community

5. JEPPESTOWN	
<p>STRENGTHS</p> <ul style="list-style-type: none"> • Jules Street motor trade and related businesses provide job opportunities in the area • Concentration of institutional activities (schools, small colleges, etc) • A diverse mix of residential typologies and tenures • Numerous buildings of heritage significance • Good accessibility provided by PRASA rail link 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • High levels of poverty • Insufficient low-income housing provision resulting in informal and illegal accommodation • Southern parts of Jeppestown are characterised by industrial buildings, some of which are occupied illegally • Lack of disposable income amongst resident profile leads to curtailed economic activity • Perceived increase in crime/criminal activity
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Potential expansion of Jules Street motor trade precinct • Potential infill and densification of CoJ Housing Estate on Jules Street 	<p>THREATS</p> <ul style="list-style-type: none"> • Lack of diverse income groups (mainly low to middle income), which limits sustained economic activity. • Degradation of industrial buildings due to illegal invasions • Insufficient urban management, resulting in crime, dirty, derelict buildings, lack of maintenance • Informal settlements at George Goch Station and Mangolongolo.

6.3 Summary

Below is a summary of the findings reached and planning cues drawn.

SECTOR/INPUT	FINDINGS	PLANNING CUES
NATURAL ENVIRONMENT	An extensive open space system exists across the study area, albeit fragmented, inaccessible and unsafe in many parts.	Linkage of open spaces through development of "green streets" can be considered, as well as improvements to accessibility and usability of existing open spaces.
BUILT ENVIRONMENT	The western part of study area, bordering onto and integrating with Johannesburg CBD is an area of positive transition, but suffers from significant neglect and urban decay.	This area should be a focus for economic growth and housing densification.
	The western part of study area is predominantly characterized by a higher rise building typologies and coarser grained townscapes, while the eastern part is more suburban in character with predominantly single story dwelling and fine grained townscapes.	The western portion of the site is better suited to residential redevelopment and densification.
	A total of 3949 informal and 1370 formal backyard structures were counted during aerial photography analysis.	A minimum of 5319 households currently residing in the area require housing, before expansion is considered.
	A robust transport network traverses the study area, including road, rail, taxi, bus and BRT. North-South linkages remain poor. Walkability and NMT is obstructed and there are crossing points across the railway line.	Maximize public transport opportunities through TOD, pedestrian/NMT priority public environment interventions and new Activity Streets.
SOCIO-ECONOMIC ENVIRONMENT	Well-located economic nodes are located at intersections of major routes exist, along with functioning manufacturing zones in Lorentzville and New Doornfontein.	Strengthen existing economic development area / zones and use as catalysts for urban renewal and upgrading.
	The economic base of the area is predominantly located in the secondary sector, in small scale services and manufacturing, with a significant informal sector.	Land use management to accommodate mixed-use development with appropriate levels of control.
	Proximity to employment opportunities in the CBD and industrial belt to the south add to the appeal of the study area as a place to live.	Improve connectivity to areas of employment in the CBD and industrial belt to the south.
	The population dynamics of the area indicates a large youth population.	Priorities social infrastructure.
	The residential profile includes a significant transient population.	Rental housing stock and educational facilities are required.
	There is significant low income housing demand in the area which is not currently being met outside the informal sector.	Affordable housing typologies linked to practical ranges of affordability are needed.

SECTOR/INPUT	FINDINGS	PLANNING CUES
INSTITUTIONAL ENVIRONMENT	Lack of capacity within and delivery by many City Departments and Agencies is a major contributor to Urban decay within the study area.	Management and delivery capacities within City Departments and Agencies active within Region F will need to be dramatically increased to meet current demand and to meet expansion requirements linked to the envisaged increases in population.
EXISTING PLANS, PROPOSALS & STUDIES	Several projects previously proposed by several successive plans, such as Derby Road Upgrade, the Jubbai Parkway and Upgrade of the Julius Jappe Housing Estate are yet to be implemented.	Priorities these projects for implementation.
	Potential activation of Ellis Park Sports Precinct on non-event days is a key opportunity.	Densify Ellis Park Sports Precinct.
	Significant number of council-owned land parcels in the Ellis Park area.	Development of these land parcels should be considered as early phase, "low-hanging fruits".
STAKEHOLDER PARTICIPATION PROCESS	The area has many assets which work well, like the Ellis Park Sports Precinct, Maboneng Precinct and the Lorantzville node.	The UDF should provide a framework for nurture, support and expansion of these precincts.
	Safe walking routes linking to public transport needed.	Public environment: Upgrades along key streets linking to public transport stations and stops.
	Open spaces are inaccessible and unsafe.	Repurpose, Upgrade and secure open spaces.
	Council-owned facilities and properties are poorly managed and maintained.	Upgrade and redevelop Council properties, or release to the market for development.
	Lack of by-law enforcement, particularly around squatting and land use is problematic.	Greater focus on by-law enforcement by City Agencies and Departments needed.
	Concerns raised around potential evictions and displacement of current residents should also be developed.	New housing developments to include units geared to the affordability levels of current residents.
	Heritage of the area is unique.	Conserve and celebrate the built heritage of the area.



7.0. URBAN DEVELOPMENT VISION

- 7.1 VISION STATEMENT
- 7.2 DEVELOPMENT RATIONALE
- 7.3 DEVELOPMENT PREPOSITIONS

7.1 Vision Statement

The Inner City Eastern Gateway must become an **inclusive series of inter-connected neighbourhoods** accommodating an economically and demographically diverse resident profile within a **well-integrated, liveable, high-density urban environment** within easy reach of nearby job centres and social amenities.

In support of this vision, the UDF proposes the following core interventions:

1. Formalise **residential densification**;
2. Broaden the **housing offering** in the area to cater to all needs;
3. Improve **accessibility** and **connectivity**;
4. Expand the area's **economic base**;
5. **Repurpose** the **urban environment** to its transformed context and new role;
6. Maximise and improve the existing extensive **open space system**.

7.2. Development Rationale

The Development Rationale which informs the Urban Development Framework described in the latter part of this document, is shaped by three main strategic thrusts:

1. Densification of the C.B.D. Interface;
2. Corridor Development;
3. Transit-Oriented Development.

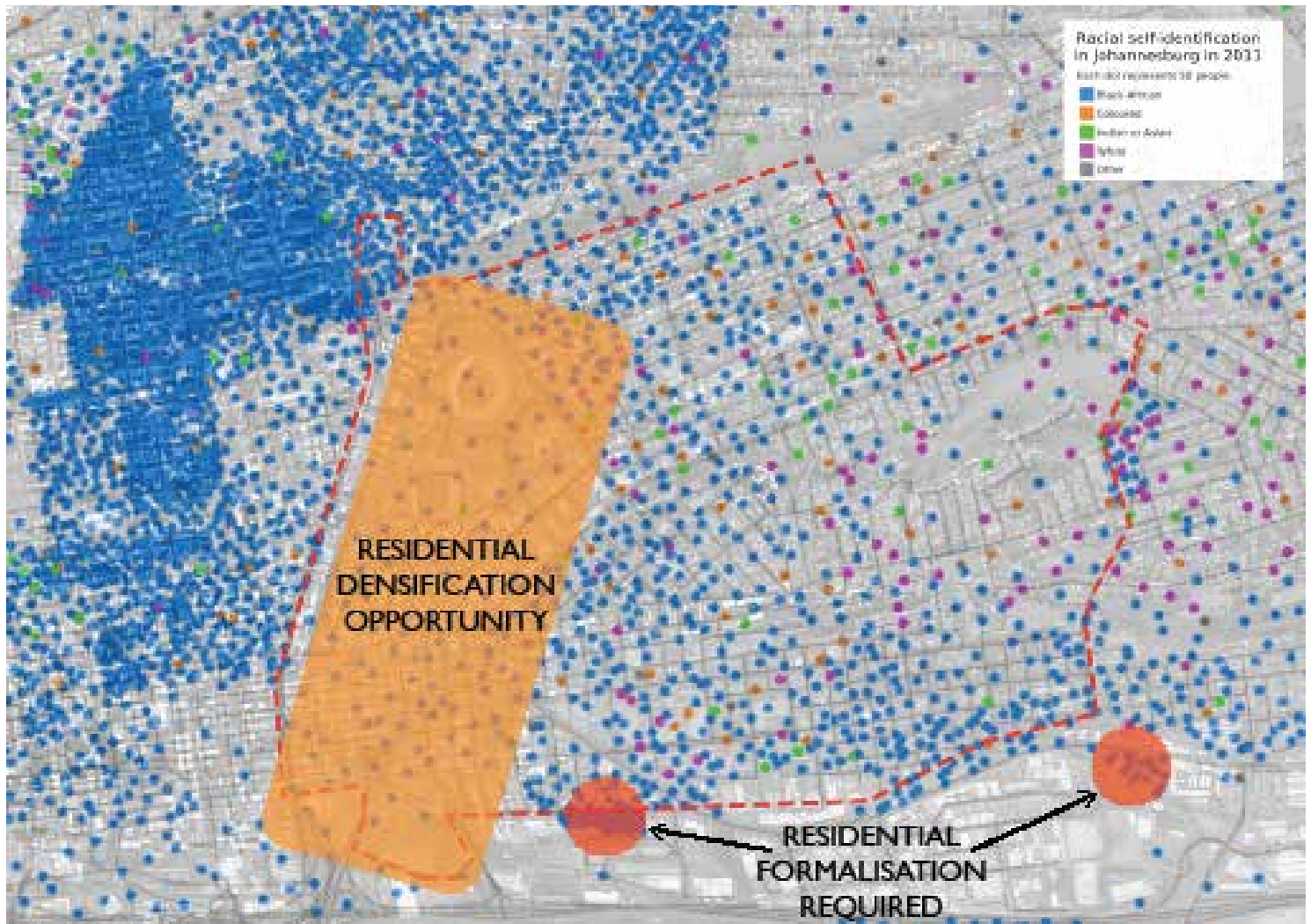


Figure 131 : Densification of CBD Interface

7.2.1 Densification of the C.B.D. Interface

Analysis of current residential density patterns within the ICEG Study Area reveals a stark contrast between the very high densities in the flatlands of neighbouring Hillbrow, Berea, Yeoville and Joubert Park and the relatively low-rise residential neighbourhoods of Bertrams, Judiths Paarl, Troyeville, Kensington and Jeppestown. The anomaly of a zone of very low residential density located in the western part of the Study Area, along the interface with Johannesburg C.B.D., including the areas of New Doornfontein and City & Suburban that are historically more commercial in character, is also apparent.

This strategically located zone possesses many characteristics which make it suitable as a key residential densification opportunity:

- It is located within walking distance on nearby job opportunities in Johannesburg C.B.D. and Droste Park/Benrose Industrial
- It is the part of the study area that is best served by the PRASA and Rea Vaya public transport networks;
- It contains building stock that lends itself well to adaptive re-use for mixed use or residential purposes;
- The street grid offers the potential for eastward expansion of the ground floor level street scape and buzz which is prevalent in the C.B.D.;
- Numerous City-owned properties are concentrated within the zone, including

several vacant brownfield sites, offering opportunities of City-led residential development;

- Numerous sites and buildings listed on the City's Inner City Property Scheme, a database of "bad buildings", are concentrated within the zone, representing expropriation and upgrade opportunities;
- Densification is possible without negatively impacting the historic townscape character and heritage significance of the area, as compared to historically more low-rise fine-grained suburbs such as nearby Bertrams, Troyeville and Jeppestown.

For the reasons outlined above, the bulk of the proposed residential development within the ICEG Study Area has been earmarked within this C.B.D. interface zone.

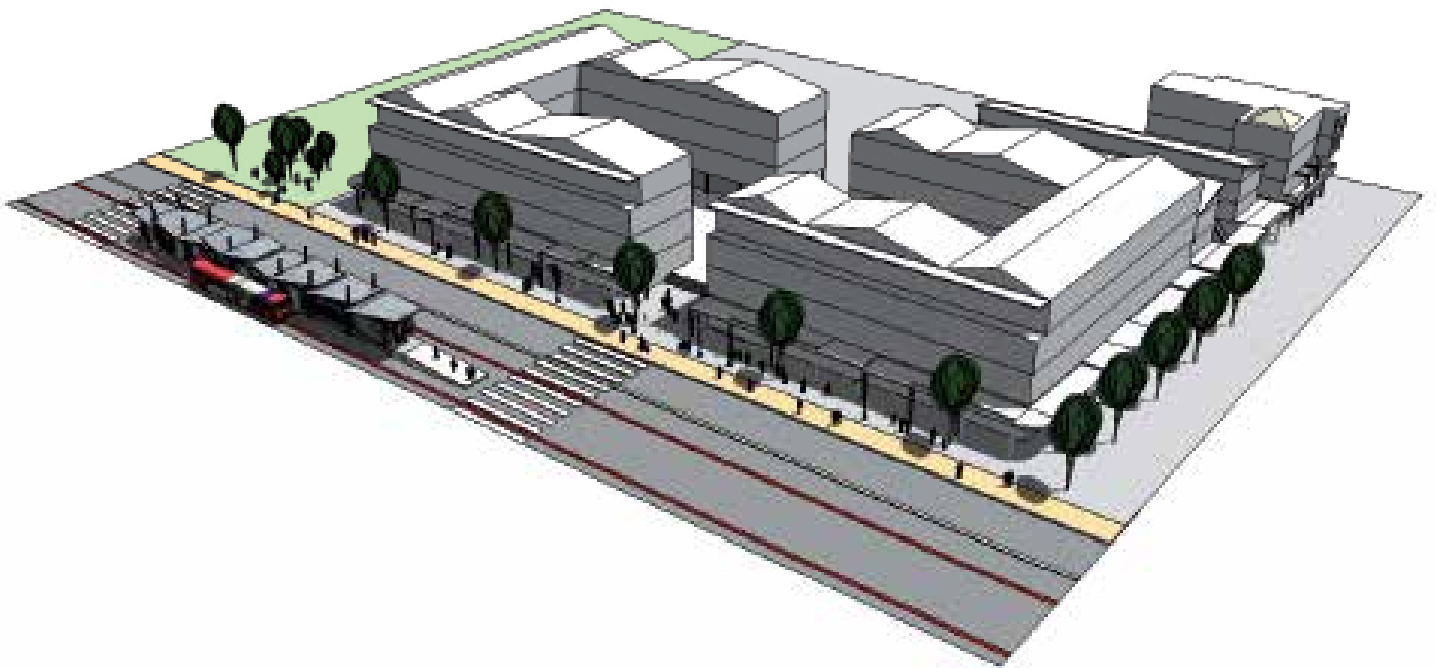


Figure 132 : Densification of movement corridors

7.2.2 Corridor Development

Several key movement routes link eastwards from Johannesburg C.B.D. to the city's eastern suburbs and beyond to Ekurhuleni. These include:

- Albertina Sisulu Road;
- Commissioner Street/Roberts Avenue;
- Main Street;
- Jules Street.

The densification of these corridors, within a 200m walking radius of the street centreline, and encouraging higher building heights, activities of higher intensity as well as mixed use building typologies is envisaged along these key corridors, in alignment with the Corridors of Freedom initiative.

In addition to these east-west movement routes, a new mixed use Activity Corridor linking Mordaunt, Dawe, Park and Derby Roads is also envisaged.



Figure 133 : Transit Orientated Development

7.2.3 Transit-Oriented Development

The third and final strategic thrust is the proposal of walkable, high-intensity mixed use nodes within a 400m walking radius around key public transport stations and interchanges within the ICEG Study Area.

These include:

- Jeppe PRASA Station;
- George Goch PRASA Station;
- Ellis Park East BRT Station;
- Proposed New BRT Stations at Jeppe Police Station, Bertrams Spar, Judiths Paarl and Darras Centre.

7.3. Development Propositions

The following five propositions are put forward with a view to shaping the direction of interventions in the ICEG in pursuit of the set out in Section 7.0 above.

1. NEW HIGH DENSITY RESIDENTIAL NEIGHBOURHOODS

The ICEG Study Area has the potential to absorb large numbers of people looking for accommodation close to places of employment in the CBD and the nearby mining belt industrial areas, particularly those drawn from lower income groups. The most cost effective and efficient way to deliver housing for this market is at scale and at high density.



Figure 134 : Brickfields Housing Typologies

2. INFILL DEVELOPMENT IN EXISTING NEIGHBOURHOODS

A sensitive approach to existing residential suburbs is proposed, focused on development of vacant sites, formalisation of backyard structures and selective redevelopment of low-density municipal sites.



Figure 135 : New housing for fine grained townscape

3. NEW COMMUNITY FACILITIES & SCHOOL “DENSIFICATION”

New Libraries, Clinics, Recreation Centres & Community Halls will be required to support the increased residential population of the area. Community facilities will be integrated into the new residential developments and existing school sites will be expanded or “densified” with multiple schools potentially sharing sports fields and playgrounds.



Figure 136 : Inner City Schools: Evelyn Grace Academy, London designed by Zaha Hadid

4. NEW PEDESTRIAN CONNECTIONS & WALKABILITY IMPROVEMENTS

The current car-dominated public realm system needs to be repurposed to better suit a resident profile the majority of which walk or use public transport.



Figure 137 : Wide Pedestrian Sidewalks

5. NEW PARKS + REPURPOSING & ACTIVATION OF EXISTING PARKS

New parks and open spaces need to be created to cater to the increased residential population of the area and existing parks need to be upgraded and repurposed to better serve the needs of a younger resident profile.



Figure 138 : Inner City Parks

8.0. URBAN DEVELOPMENT FRAMEWORK

8.1 VISION PLAN

8.2 LAND USE

- 8.2.1. PROPOSED LAND USES
- 8.2.2. PROPOSED ZONING

8.3 PUBLIC ENVIRONMENT

- 8.3.1. PUBLIC REALM
- 8.3.2. MOVEMENT NETWORK
- 8.3.3. PARKS & GREEN SPACES

8.4 BUILT FORM

- 8.4.1. HEIGHT AND GRAIN GUIDELINES
- 8.4.2. STREET EDGE GUIDELINES

8.5 HOUSING

- 8.5.1. ASSUMPTIONS: NUMBER OF HOUSEHOLDS THAT REQUIRE HOUSING INTERVENTION
- 8.5.2. ESTIMATES OF HOUSING NEED
- 8.5.3. POSSIBLE INTERVENTIONS - HOUSING FORMS
- 8.5.4. APPLYING ICHIP IN EASTERN GATEWAY
- 8.5.5. LOGIC FOR HOUSING INTERVENTION
- 8.5.6. ICHIP PRIORITY HOUSING PRECINCTS
- 8.5.7. HOUSING DELIVERY REQUIREMENTS
- 8.5.8. PROPOSED HOUSING INTERVENTIONS
- 8.5.9. PROPOSED HOUSING TYPOLOGIES

8.6 SOCIAL FACILITIES

- 8.6.1. A JOZI- WORKSHOP TO LEAD RENEWAL CENTERED ON INVESTMENT IN HUMAN CAPITAL

8.7 HERITAGE

- 8.7.1. HERITAGE APPROACH
- 8.7.2. COMMENT ON PROPOSALS BY HERITAGE CONSULTANT

8.8 TRANSPORT & TRAFFIC

- 8.8.1. ANTICIPATED TRIP GENERATION AND MODAL SPLITS
- 9.6.2. TRANSPORT STRATEGY

8.1. Vision Plan

This Urban Development Framework (UDF) for the Inner City Eastern Gateway aims to set out a series of strategies for better utilising what is a strategic location within the central area of the city of Johannesburg. The UDF puts forward proposals that aim to address the challenges identified in the Status Quo Analysis (described in Section 3.0) and the issues brought forward by stakeholders during the Stakeholder Consultation process (detailed in Section 5.0). Key proposals in this regard that apply to the entire study area are set out in the subsequent sections 9.1 to 9.7, which cover:

- Urban Design Vision;
- Land Use;
- Public Environment;
- Built Form;
- Housing;
- Heritage;
- Transport & Traffic, and;
- Engineering Services.

● Doornfontein Station



Figure 139 : Vision Plan





Vision Plan

- New Mixed Use Developments
- New Public Environment
- New Parks
- Private Properties with Increased Bulk Rights
- Proposed BRT Stations
- Railway Stations

8.2. Land Use



Figure 140 : Land Use Plan

Land Use Map

- Residential
- Retail
- Community Facility
- Education Facility
- Light Industrial
- New Park
- ▨ Mixed Use - Retail / Residential
- ▨ Mixed Use - Community / Residential
- ▨ Mixed Use - Education / Residential
- ▨ Mixed Use - Light Industrial / Residential
- ▨ Mixed Use - Office / Retail



8.2.1 PROPOSED LAND USES

The proposed location of various land uses within the ICEG Study Area are planned with the following principles in mind:

- An increase in residential density of the area, in support of the “compact city” model; in many instances this means taking up existing rights and relaxations on parking ratios and heights in order to achieve the population density targets in the SDF of 15 000- 60 000 people/km²
- The creation of a diverse mix of uses to support the 24-hour city concept of “live, work, play” in close proximity;
- Ease of access to places of employment, retail, social amenities, education, health and recreation facilities, and places of worship for all residents of the area;
- The addressing of deficiencies in certain types of land use (e.g. affordable housing, social facilities, usable green space);
- The separation of incompatible land uses, in particular the segregation of land use likely to cause adverse environmental conditions (e.g. noise, pollution);
- The conservation of the historic townscape character of the area, in particular within the fine-grained townscapes of Bertrams, Troyeville and Jeppestown.

Land uses such as retail spaces, offices, places of worship, educational and community facilities are to be concentrated along the main movement routes, (Charlton Terrace / Bertrams Road, Albertina Sisulu Road, Commissioner Street, Jules Street, Mordaunt Street / Dawe Street / Park Road / Derby Road) that bisect the area.

Vertical mixing of uses, for example ground floor retail with office and/or residential located above, is proposed along these main streets, or “mixed use activity spines”. It is proposed that properties fronting onto these streets be assigned increased rights in relation to height, density and coverage.

It is envisaged that the location of a mix of uses along these main streets will result in an even spread of economic activity and social amenities throughout the area.

The UDF is developed following the key principles of the Spatial Development Framework (SDF) 2040. In order to achieve these principles the SDF has set key urban performance measures indicated in the table below.

The SDF has also set minimum density targets per priority area towards the achievement of these targets. As Core Metropolitan Node, the Inner City and near Inner City neighbourhoods have the following density guidelines:

INNER CITY (as per UDZ Boundaries) = 100 du/ha

Within 1000m² of the Inner City Boundaries= 80 du/ha

The zoning guidelines attempts to comply with these minimum densities and provide a clear vision for the envisioned land uses and mix. There is no strong deviation from existing zoning rights, so the guidelines highlight the nature of the desired built form.

SPATIAL DEVELOPMENT FRAMEWORK 2040	
MEASURING URBAN PERFORMANCE - DEVELOPMENT INDICATORS	
FORMULA	UNITS / TARGETS
Street Area including sidewalks (Public Realm) as a percentage of Total Neighborhood / Township Area.	(30 - 45%)
Population Density.	(15 000 - 60 000 people per km ²)
Economic Floor Area as a percentage of Total Floor Area.	(40 - 60%)
Residential Floor Area as a percentage of Total Floor Area.	(30 - 50%)
Single Tenure Residential Floor Area as a percentage of Total Residential Floor Area.	(0 - 50%)
Inclusionary / Low income / Affordable Housing units as a percentage of Total Residential Units. (Neighborhood Level)	(20 - 50%)
Single function Block Area as a percentage of Total Neighborhood Area.	(0 - 30%)
Job Density.	0.5 to 10 jobs per resident.
Access to Transit.	(30% of new housing opportunities within 1km of public transit stops, 70% within 2km of public transit stops)
Street Connectivity (Intersections / km ²).	(80 - 120 Intersections / km ²)
Public Open Space (parks, squares, playgrounds, sports fields, etc.) as a percentage of Total Neighborhood Area.	(15 - 20%)

Figure 141 : Spatial Development Framework 2040, Measuring Urban Performance
(Source: City of Johannesburg: Spatial Development Framework 2040)

8.2.2 LAND USE MIX

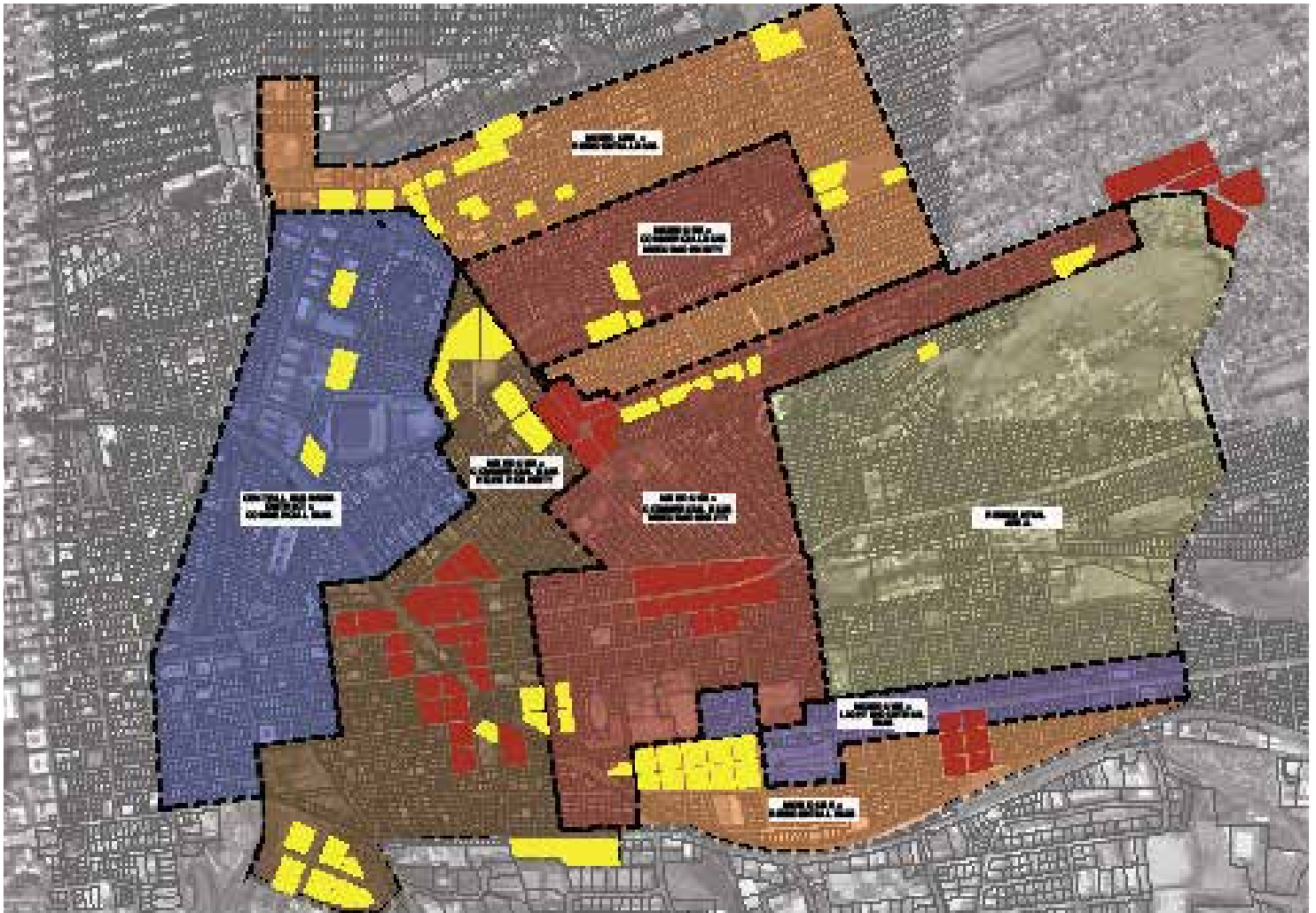


Figure 143 : Land Use Mix

The UDF proposals are mainly aimed at introducing a larger residential component at higher densities than what is present at this moment in time.

Zoning is therefore required which will allow the development of a mixed use urban environment where the development of residential support services and social services can easily be incorporated in residential densification project areas.

It must be made clear that it is not the intention of the UDF to erode the existing or future job opportunities in the study area but to rather create an enabling environment within which a more sustainable compact city can evolve.

The map indicating the Land Use Mix

highlights predominant uses for key sub-precincts of the study area, whilst maintaining the mixed use nature of the majority of the study area.

The envisioned nature of each of the sub-precincts is described below. These descriptions are generally based on current zoning and heights which are permissible. The descriptions are meant to guide Land Use decision making in line with the Spatial Development Framework promoting compact city principles and mixed use development.

Central Business District- Commercial Bias:

This sub-precinct is envisioned to continue the land use mix of the Inner City Core. The Inner City Core is a key commercial node of

the City of Johannesburg. While at present some of these buildings, especially on the southern part of the identified area are low density, there are multiple opportunities for further development at 8 storeys or more. While existing stock are being and can be converted from commercial to residential affordable accommodation, ground floor retail, commercial and even industrial (not noxious) should be promoted. Economic activities should remain the predominant use with a minimum 60% commercial, 40% residential implemented where possible. Under Parking Zone A, there are no stipulated parking ratios, but given property values and potential bulk as well as precedent in some existing building stock, it is envisioned that re-development will include parking basements or at least parking provision at the back of the buildings. Site development

plans should illustrate maximising built to lines and activation of ground floors, creating active street edges further promoting the walkability of the sub-precinct.

Mixed Use- Commercial Bias: Medium and High Density

This sub-precinct covers a diversity of building stock, height zones and current zoning. However, it covers areas with critical access to transit nodes, both existing rail and BRT as well as planned BRT. This node offers real opportunities for live work environments and typical development is envisioned with commercial or retail development on the ground floor and subsequent levels with well-managed residential units or communal facilities on the upper levels. Where possible parking should be accommodated on site, again promoting built to and active street frontages. On street loading zones should be included in the streetscape, where possible entrances configured towards public transit amenity with on street pedestrian entrances to buildings. Institutional uses such as creches, schools, training centres, language schools, social services, legal services, artistic and artisanal skills development centres should be promoted towards the creation of an urban neighbourhood **learning, living and working environment**. A mix of commercial and retail should be maintained. The land use mix should be encapsulated both within buildings and across precincts. A bias of 60 % commercial 40% should be encouraged.

Medium Density- the predominant envisioned stock in this area would be 4-5 storey buildings with ground floor retail or medium density commercial or retail amenity and complimentary residential development.

High Density- Here the 8 storeys and above permissible will allow for much more dynamic commercial, retail and residential mix within buildings and in precincts. For the higher density areas basement parkings should be encouraged through review of Site Development Plans. The 100 Du per Ha should as per the Spatial Development Framework minimums should be adhered to across the area.

Existing and proposed retail clusters should be supportive and intense retail development permitted. Analyses of Site Development Plans should where possible support high street retail rather than commercial centres.

Mixed Use- Light Industrial Bias

What is meant by industrial includes the use of a building or land or part thereof as a factory and in which an article or part of such article is made, manufactured, produced, built, assembled, compiled, printed, ornamented, processed, treated, adapted, repaired, renovated, rebuilt, altered, painted, including spray painting), polished, finished, cleaned, dyed, washed, broken up, disassembled, sorted, packed, chilled, frozen or stored in cold storage; including offices, caretaker's quarters or other uses which are subservient and ancillary to the use of the property as a factory; and includes a warehouse, the generation of electricity; the developing or processing of photographs, films or tapes; refuse disposal sites; and abattoir but does not include a noxious trade or risk activity.

These uses are critical to allow the precinct as a whole to maintain a manufacturing function, so that the study area can act as a key space for training and employment within the Inner City. Where possible both through rezoning and through site development plan assessment the actual use should be interrogated and manufacturing uses prioritised.

Given that noxious industries are not permissible in the light industrial zone; residential spaces above manufacturing/light industrial use should be promoted. This is so as to promote live work environments and even more so where those work spaces offer training opportunities.

Along Jules Street there is existing light industrial, which could be optimised through increased densities in line with the SDF, at height maximums of 5 storeys. Creating real live work manufacturing spaces in the Inner City.

Retail Cluster

The retail cluster seeks to maximise existing retail nodes in the study area and to develop new nodes, which will provide critical amenities to neighbourhoods in the study area. These retail nodes are on or linked to key mobility spines, rail stations and BRT routes. Retail activities should be prioritised in these nodes. These nodes should comply with the minimum densities as per the SDF. Where relevant height zones should be relaxed to allow for dense retail nodes to service increasingly dense residential neighbourhoods in the study area. Pedestrian, public transit and parking

should be carefully analysed through site development plans; prioritising pedestrian and public transit users through the design of the on street interface.

Mixed Use- Residential Bias

These nodes offer immense opportunity for medium density residential re-development. Based on a traditional "Residential 4" zoning, there are opportunities for consolidation of erven and development of residential at maximum heights of 4 storeys on the whole. While the Urban Development Zone (UDZ) boundary does not cover the eastern most block of Betrams, given that it is within 1000m² of the CBD and has sites with potential housing development at scale; it recommended that this block receives the same treatment as that immediately adjacent to it. Well serviced by public transit through BRT and rail connections and with no parking requirements within the UDZ boundaries, minimal parking in basements (where the scale of development is such) or at the exterior of the property should be considered. Opportunities for retail or commercial uses within the residential development areas should be promoted, with an ideal mix of 75% residential and 25% retail or commercial. In commercial or retail properties loading bays and some parking should be provided, although at levels relaxed to 2 parking bays per business.

Residential Cluster

The recommendation is that this sub-precinct maintains its residential character at present, allowing for compacting in the other sub precincts of the study area, towards the achievements of the urban form and environment proposed in the SDF. This would mean following the prescripts of "Residential 1" zoning, allowing a maximum of 3 storeys and 2 subsidiary dwelling units. This is particularly true for Kensington.

The portion of the precinct between Commissioner Street and Jules Street will require a more nuanced approach to land use decision-making. With Heritage constraints and compaction in other parts of the study area; it is envisioned that this area should remain as is. However a five year review (2021) for this particular portion is required. Where adjacent to other parts of the sub-precinct and not constrained by Heritage consideration of proposals illustrating mixed use residential bias properties could be considered.

8.3. Public Environment



Figure 144 : Public Realm



Public Environment

- New Mixed Use Developments
- ▬ Pavement upgrades
- ▬ New Paved Public Areas
- ▬ New Parks
- ▬ New Parklets
- ▬ Existing Parks
- Proposed BRT Stations
- Railway Stations

8.3.1 PUBLIC REALM

Urban design places great emphasis upon the importance of the public realm as both a driver and conduit of the vital activities and processes at play within our cities:

- human interaction;
- trade;
- cultural exchange;
- transport of people, goods and materials.

The public realm comprises the shared spaces in which social and economic exchange take place, the places where people of differential income and socio-demographic mingle and opportunities are created. The public realm is the means of socio-spatial transformation of Johannesburg from an apartheid city to a healthy equitable city. The following principles are proposed for the upgrade of key spaces within the Public Environment:

- Un-cluttered “walkable” pavements;
- Safe pedestrian-friendly environment through high quality street furniture, lighting, paving and landscaping;
- Design keyed into municipal management and maintenance procedures;
- The street as an external common room, building on the existing street character of the areas;
- The creation of visual thoroughfares and landmarks to aid orientation and legibility;
- Way-finding signage to heritage sites and places of interest;
- Sensitive design to facilitate equitable accessibility for disabled persons as well as prams and pushchairs;
- Concentration of activity along edges of streets and public spaces.

As outlined earlier in this report, the current public environment system within the ICEG Study Area is geared to a different resident profile and pattern of use from what exists today, being car dominated and non-supportive of walkability and Non-Motorised Transport. A re-vitalised public environment system is proposed through the reconfiguration and repurposing of key streets and movement routes connecting across the ICEG area and westwards into the CBD.

8.3.2 MOVEMENT NETWORK

Movement Network	
—	Pedestrian Priority Route
—	Vehicle Priority Route
—	Future BRT Route
●	Future BRT Station
●	Existing BRT Station



Figure 145 : Identified Pedestrian Priority Routes

New north-south pedestrian priority “Activity Streets”, punctuated by paved squares are proposed as follows:

- Betty Street (City & Suburban), connecting the new Kazerne residential precinct to Jeppe Police Station via Maboneng;
- Ford/Street / Mordaunt Street / Dawe Street / Park Road / Derby Road (Jeppestown, Troyeville, Ellis Park and Bertrams), forming a pedestrian spine lined with commercial uses and community amenities;
- Scott Street (Jeppestown), linking George Goch PRASA Station to Jules Street.

Sidewalk upgrades and widenings are proposed on the following streets:

- Charlton Terrace / Bertrams Road:
- Albertina Sisulu Road:
- Commissioner Street:
- Jules Street.
- Margaret Mcingana Street.
- Staib Street / Berea Road.

New Bridges across railway line are proposed at :

- George Goch PRASA Station;
- Mangolongolo Informal Settlement

8.3.3 PARKS & GREEN SPACES

Parks and Green Spaces
■ New Green Space / Park
■ Existing Green Space / Park



Figure 146 : Parks and Green Spaces

As previously described, despite a generous provision of green space within the study area, a shortage of usable and accessible green space is apparent due to much of the existing open space system being inaccessible and residual in character. To address this situation, the following interventions are proposed:

Upgraded / Repurposed Parks:

- A. Central green space in Ellis Park (straddling Beit Street between Johannesburg Athletics Stadium and Ellis Park Stadium);
- B. Existing residual green space in Housing Precinct 12 enclosed by 3rd Avenue, 5th Avenue, 1st and 2nd Streets, Bertrams - this is a potential site for a SAFA safe hub;
- C. Gilfillan Park, City & Suburban.

New Parks:

- D. Kazerne residential precinct (Housing

- Precinct 15) - this is an alternative site option for a SAFA safe hub;
- E. Wolhuter Hostel (Housing Precinct 20);
- F. Highgate Street (Housing Precinct 18), Jeppestown;
- G. Concession Street (Housing Precinct 19), Jeppestown;
- H. Mongololo residential precinct (Housing Precinct 21).

New fenced and landscaped Pocket Parks along the foot of the Troyeville/Kensington ridge, serving the increased residential population along the Albertina Sisulu corridor:

- I. Bellevue Street, Troyeville (Housing Precinct 13);
- J. Beelaerts Street, Troyeville (Housing Precinct 13);
- K. Cressey Street, Kensington;

- L. Doris Street, Kensington;
- M. Flora Street, Kensington;
- N. Cavan Street, Kensington.

O. Implementation of the Jukskei Parkway, as originally proposed in the Inner City Urban Design Implementation Plan (ICUDIP), linking the new paved forecourt in front of the Standard Bank Arena to the upgraded park on 1st Street, Bertrams.

Roadway narrowing on selected streets in Bertrams and Jeppestown to improve walkability and accommodate new parklets.

A total of 32 653m² of new parks are proposed, plus a further 29 867m² of upgraded parks at the foot of the Troyeville/Kensington ridge. Offset against these figures is a total site area of 29 733m² reallocated from the following residual green spaces to residential development:

- Housing Precincts 2 and 5 at the foot of the Yeoville-Observatory ridge in Bertrams;
- Housing Precinct 12 in Bertrams, where new residential blocks are proposed on a paved area in the north-west corner and on two narrow strips along 5th Avenue, overlooking the upgraded park to improve safety;
- Housing Precinct 13 on the southern side of Albertina Sisulu Road in Troyeville;

The following guidelines in relation to Green Space, issued by City of Johannesburg Environmental Management apply to the Open Space System:

- City Parks and Johannesburg Property Company must be contacted to verify the zoning of the vacant land that is owned by the council;
- Existing open spaces in the Region must be protected and maintained. Open Spaces are not to be sold off for development purposes;
- Provision and maintenance of social infrastructure including open spaces and JMOSS linkages must be budgeted for in the total development area;
- No development should take place between 1:50 or 1:100 year floodline;
- Greening in the area along the mining belt to take place in line with the Johannesburg City Parks landscaping guidelines.



Figure 148 : Proposed Parklet - Plan



Figure 147 : Example of Proposed Parklets in Bertrams and Jeppestown

8.4. Built Form

8.4.1. HEIGHT AND GRAIN GUIDELINES

Building Restrictions	
■	3 Stories
■	5 Stories
■	8 Stories

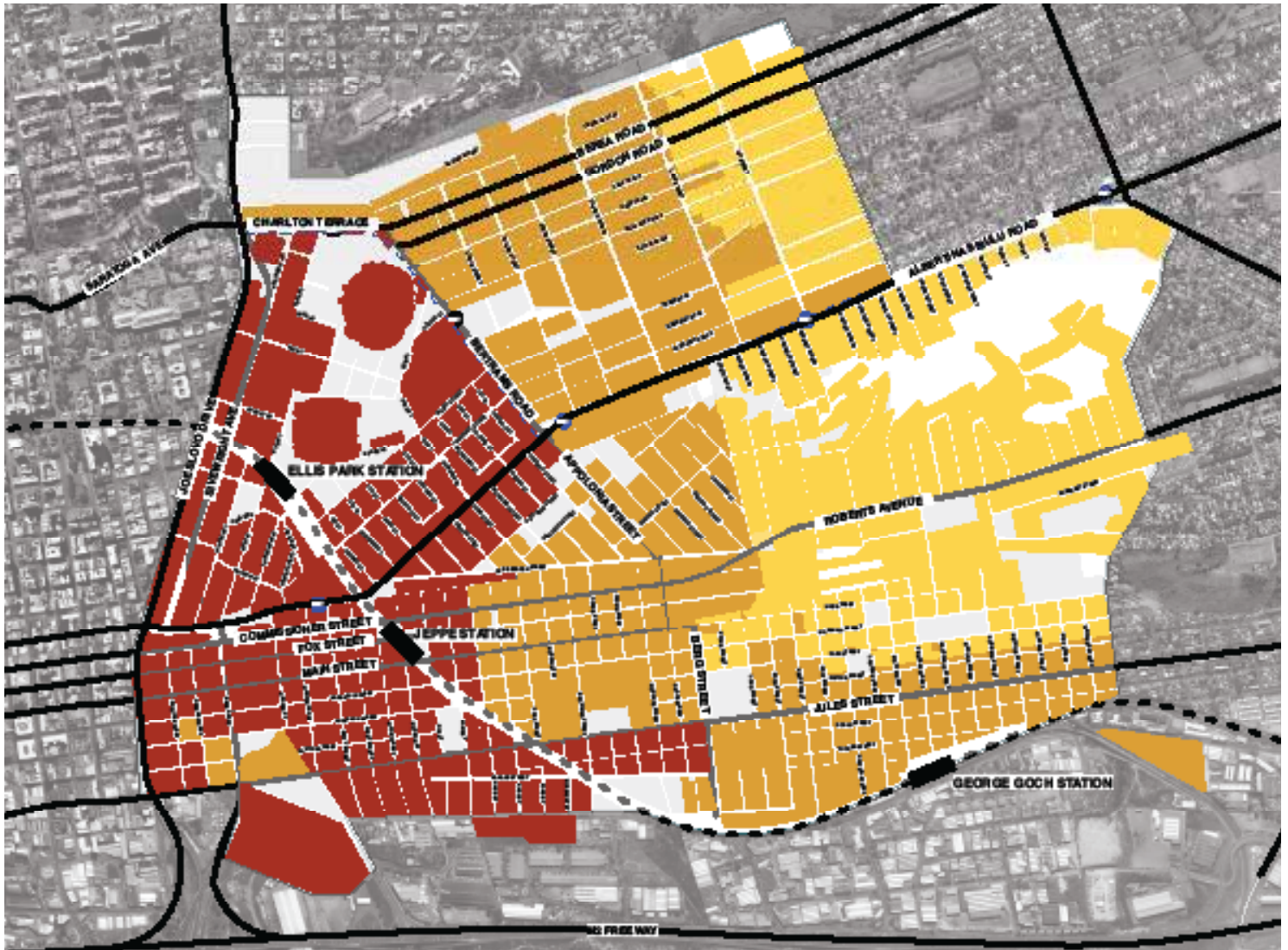


Figure 149 : Height and Grain Guidelines

- Height limit of 5 stories for zones along main movement routes and transit orientated corridors. (Charlton Terrace / Bertrams Road, Albertina Sisulu Road, Commissioner Street, Jules Street, Mordant Street / Dawe Street / Park Road / Derby Road).
- Height limit of 8 stories for towers west of the study area towards the city.
- Height limit of 3 stories for predominantly residential remainder of the study area (as currently exists).

Relaxation of height restrictions should be considered towards achieving the SDF minimum du/ha and people/km² and for high quality landmark buildings on prominent sites taking into consideration the adjacent environment.

8.4.2. STREET EDGE GUIDELINES

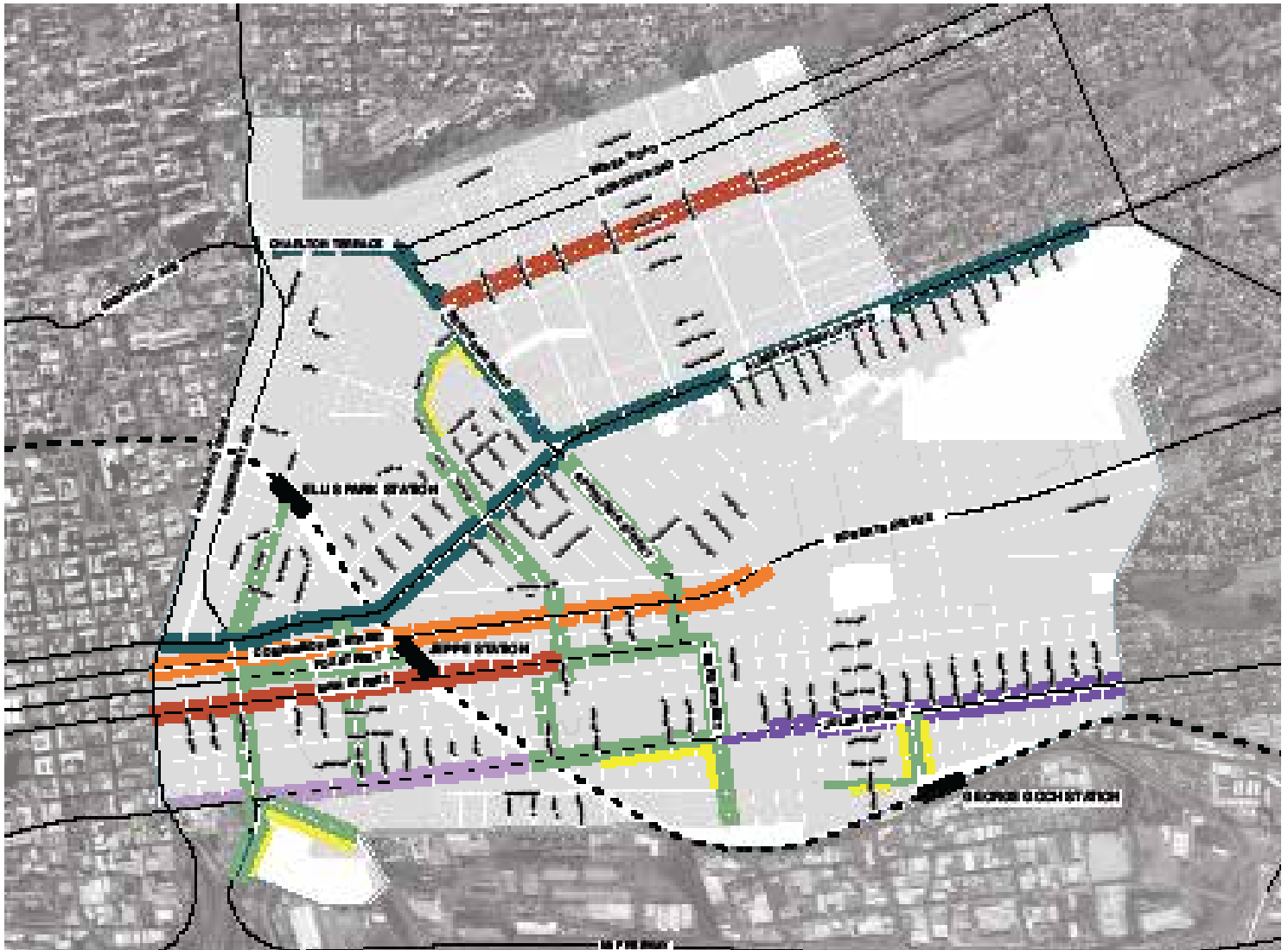


Figure 150 : Street Edge Guidelines

- Encourage shopfronts along main movement routes -high streets, retail streets and urban streets.
- Encourage street facing buildings with low/permeable boundary walls along the street edge.
- Discourage high solid blank walls along street edge.
- Build to lines to encourage development on/close to street edge.

8.0 URBAN DEVELOPMENT FRAMEWORK

High Street / Shopping Street



High Streets / Shopping Streets can be identified as busy streets, characterized by high pedestrian footfall.

Edge characteristics:

- Single or double height retail spaces (or other active uses) vertically mixed with Office/Community/Leisure uses above with Residential units at the highest levels
- Encourage transparency along Ground Floor façade (i.e. maximum use of windows where possible),
- Concentrate building entrances along street edge
- Encourage windows and balconies overlooking street at upper levels
- Discourage blank walls and façades facing onto street
- Generous pedestrian sidewalks filling space between building façades and kerb
- Continuous walkable paved level sidewalk corridor (min 1.5m width), free from street lights, signage, trees and street furniture
- On-street parking bays if road reserve width permits

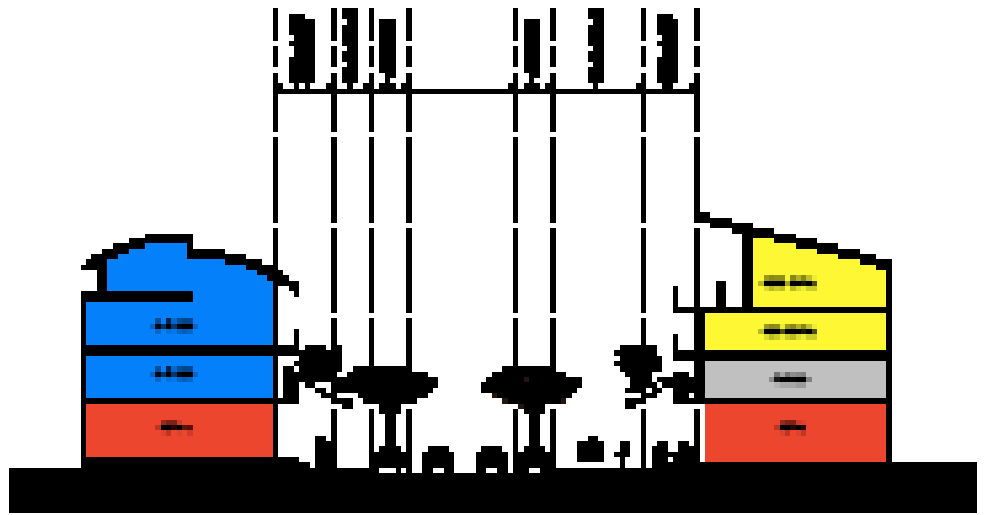


Figure 151 : High/ Shopping Street

Mobility Routes



Mobility Routes can be identified as busy vehicle movement-dominated streets along which the BRT operates, typically the streets of wider cross section and higher speed traffic located outside BRT Station Nodes.

Edge characteristics:

- Office/Community/Leisure(which may be multiple floors) with Residential above
- Discourage location of Residential uses at Ground Floor level
- Ideally raised half a level above street level facilitating privacy of ground floor spaces and potential for Semi-Basement Parking
- Encourage design of façades that adequately address noise and air pollution, e.g. through screened buffer zones or building façade setbacks
- Encourage windows and balconies overlooking street at upper levels
- Discourage blank walls and façades facing onto street
- Generous pedestrian sidewalks adjacent to kerb with landscaping against building faces permissible

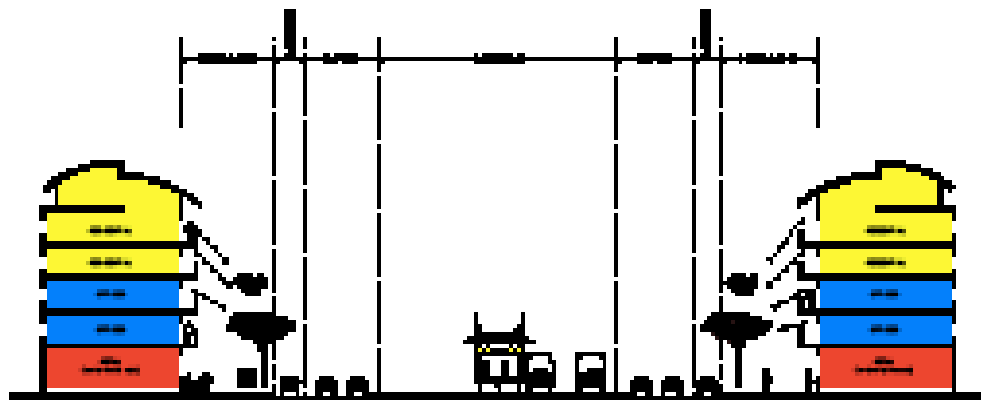


Figure 152 : Mobility Routes

Industrial / Residential Active Street Edge



An Industrial / Residential Active Street Edge is characterized by the development of residential or commercial densification above existing industrial uses.

Edge characteristics:

- Single or double height industrial spaces (or other active uses) vertically mixed with Office/Community/Leisure uses above with Residential units at the highest levels
- Encourage transparency along Ground Floor façade (i.e. maximum use of windows where possible),
- Concentrate building entrances along street edge
- Encourage windows and balconies overlooking street at upper levels
- Discourage blank walls and façades facing onto street
- Continuous walkable paved level sidewalk corridor (min 1.5m width), free from street lights, signage, trees and street furniture.



Figure 153 : Industrial / Residential Active Street Edge

Courtyard



A Courtyard can be identified as a semi-private or private space enclosed by perimeter block buildings.

Edge characteristics:

- Shared communal garden as well as opportunity for short private gardens attached to Ground Floor Residential
- Uses determined by guidelines for street-facing building edges
- Careful design consideration needed to avoid overlooking of internal spaces and protect privacy and maximize natural lighting
- Encourage windows and balconies overlooking of semi-private courtyard green space
- Encourage landscaping and low hedge partition of courtyard space

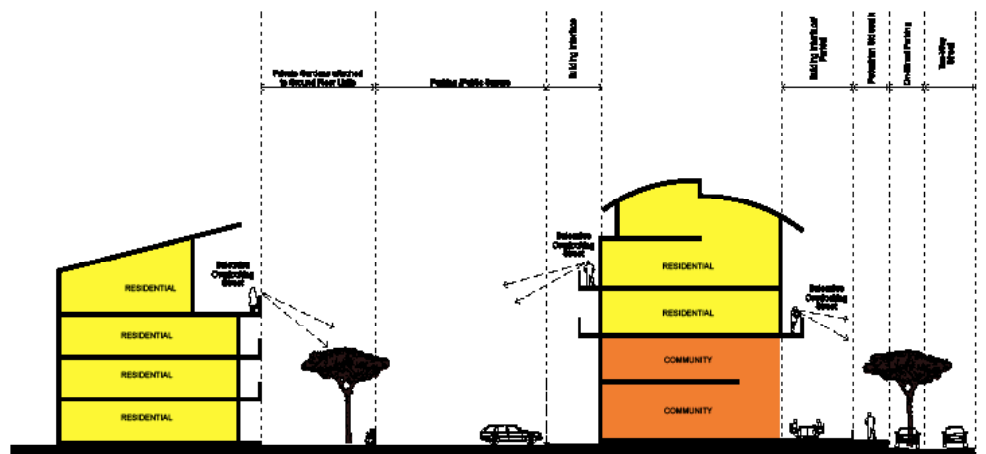


Figure 154 : Courtyards