Students Reinventing Cities

Kliptown, Johannesburg

Walter Sisulu Square and its surroundings

The selected site measures 104 hectares in extent and covers different suburbs such as Kliptown (central parts), Winnie Camp and the Freedom Charter Square (western parts), as well as Pimville Zones 4 and 8 (northern and eastern parts). The City of Johannesburg has identified Kliptown as a priority intervention area that requires specific short-term actions and long-term development strategies.

Kliptown is renowned for its significant role in the anti-apartheid struggle, as it was where the Freedom Charter was adopted in 1955. Some of the notable landmarks in Kliptown include the Walter Sisulu Square of Dedication and the Kliptown Museum which commemorate such pivotal moments in the history of the South African democracy.

The area is now a vibrant community with a mix of formal and informal settlements. It is also home to various socio-economic initiatives aimed at improving living conditions and empowering residents.

Despite several development challenges, Kliptown presents significant opportunities, such as being well-connected via rail and the BRT networks and hosting a vibrant informal trade market that could be upscaled to provide a more formal economic sector.

The broader vision for Kliptown focuses on developing the area as "...a mixed-use, transit-oriented development with an integrated lively, dynamic and vibrant environment with quality public spaces and infrastructure where residents can prosper and enjoy sustainable livelihoods within an integrated community network" – Kliptown Urban Development Framework.



Figure 1) Walter Sisulu Square | City of Johannesburg

Approx. site area:
Walter Sisulu Square - 4.34 hectares.
Square & Surroundings - 104 hectares

Key Information:
The site comprises different suburbs, including Kliptown, Winnie Camp, Freedom Charter Square, and Pimville Zones 4 and 8 with a population of 28,850 people. There are about 7,292 households, with an average household size of 3.96.

Priority areas & main expectations:

Proposals should revitalise Kliptown and its surrounding areas into a green transit-oriented development (TOD) that integrates Clean Air Zone policies.

Students should concentrate on formalising housing, promoting local economic development, strengthening assets like Walter Sisulu Memorial Square, developing an efficient movement system, and air-quality improvement strategies.

Presentation of the Site & Development Expectations

The Kliptown study area is situated on the boundaries of Regions D and G of the City of Johannesburg Metropolitan Municipality. The area lies on the southern edge of Soweto and the northern section of Eldorado Park and Klipspruit West – about 22 km from the Johannesburg Central Business District.

The study area is well-connected with the surrounding areas through M68, M10, Modjaji Street, Union Avenue, Boundary Road, Tsoene Road and Turf Avenue. The Metrorail line traverses the study area and connects it with the greater Johannesburg area. In addition, minibus taxis serve the study area since there is currently no operational BRT infrastructure in place. On the other hand, the existing NMT infrastructure does not provide clear pedestrian linkages due to the poor sidewalk conditions.



Figure 2) Site Boundary | City of Johannesburg

The CoJ Spatial Development Framework (SDF) defines Kliptown as one of the Urban Nodal Areas that are earmarked for the maximisation of social and economic benefits around residential developments. The SDF further recognises the need to unlock and transform Soweto, including Kliptown, as a True City District with access to jobs and community facilities. Furthermore, this citywide policy encourages densifying developments around TOD nodes and upgrading public transport systems and informal settlements.

According to the Nodal Review Policy, Kliptown lies within the General Urban Zone. This designation supports compatible land uses including residential, retail, commercial, offices, and small-scale service industries. This urban zone is characterised by a built form of maximum height of up to 5-storey mixed-use buildings. The applicable minimum density in the study area is 60 dwelling units per hectare. However, as it stands, the precinct is predominantly residential in nature, with the large extent being informal and non-conforming with the zoning plans.

As such, the site also has a huge potential to be transformed into a Transit Oriented Development (TOD). Transit-oriented development (TOD) is an urban planning principle that enables cities to create vibrant, people-focused neighbourhoods with maximum access to public transport and economic activity. TOD involves planning for high-density, mixed-use development alongside a robust public transport system.

Key challenges facing the area include:

- Informal settlements are vastly growing along the river often in Critical Biodiversity Areas on the western edge of the study area. These areas are prone to flooding hence development is not permissible.
- There is poor stormwater management in the area leading to flooding.
- Vandalism of the PRASA train stations and railway tracks poses a major challenge in refurbishing and rebuilding this infrastructure.
- The western extents of Kliptown are fragmented from the remainder of the study area by the railway line.
- Parts of the public environment are in poor condition (roads are not surfaced, no pedestrian infrastructure is available).
- Pedestrian access over the railway lines is a challenge to the community.



Figure 3) Informal Settlements in Kliptown | City of Johannesburg

The central part of the study area, the main part of the Students Reinventing Cities design project, includes the Walter Sisulu Square of Dedication, a mixed-use area with businesses and high-density residential flats. Informal trading is also popular in the area, especially along the Klipspruit Valley Road and Walter Sisulu Square. Moreover, there is a cluster of community facilities on the southern extent of the site, which include Khayalethu Care Centre, Kliptown Mosque, Police Station and Magistrates Court.

After years of neglect and vandalism, the Johannesburg Property Company (JPC) is finalising plans to revitalise Walter Sisulu Square. Several portions of the Square have been significantly vandalised, including the theft of metalwork and broken lights. The revitalisation project will focus on security enhancements, water and electricity supply restoration, introducing effective waste management techniques, and addressing stormwater drainage issues. This project aims to restore the area to its former glory and make it a vibrant community and tourist hub once again.

The other main structuring elements for redevelopment that students should consider in their proposals include:

- Kliptown Train Station and the railway line
- Informal Settlement (Freedom Charter Square)
- Klipspruit River
- Kliptown Youth Programme (KYP) Centre
- Kliptown Flats (JOSHCO)
- Klipspruit Valley Road, Kliptown Taxi Rank and Hardware Stores (Business Core)
- Retail and Commercial Zone (supermarkets, wholesalers and convenience stores)
- Community Facilities Precinct (Khayalethu Care Centre, Kliptown Mosque, Police Station and Magistrates Court)



Figure 4) Klipspruit River / *City of Johannesburg*

Challenge Expectations

- Transform the site into a transit-oriented development, harnessing the proximity to Johannesburg CBD, existing PRASA stations and newly installed and planned BRT stations. Utilise the established connected street networks with high levels of walkability.
- Upgrade existing housing environments, implement green building standards and optimise the number of additional affordable housing opportunities in the area.
- Upscale the vibrant informal trade market into a more formal economic sector. Consider the high population density to drive demand for jobs, goods and services.
- Strengthen existing assets, such as Walter Sisulu Memorial Square, to boost tourism.
- Ensure an efficient, integrated and user-friendly movement system that prioritises activity mobility and public transport.
- Enhance access to quality public spaces, e.g. transform the open space structure to add great ecological value to the area.

Clean Air Zone Considerations

The southern part of the City of Johannesburg, including the region in which Kliptown is located, falls within the Vaal Priority Airshed Area. Airshed priority areas are areas that have been identified as hotspots in terms of air quality and are legally declared as such by the national minister of environmental affairs.

Poor air quality is a serious problem facing the city, and the levels of air pollution have become increasingly worse over the years. The contributing sources to poor air quality in the city have been identified to be **industries, domestic fuel burning, biomass burning, vehicular traffic emissions and mine tailings dumps**. The exceedances of ambient air quality standards for both particulate matter fractions (PM_{10} & $PM_{2.5}$) indicate that the exposure of communities to poor air quality has the potential to be harmful to their health and well-being.

The Kliptown area has numerous informal settlements, which are often characterised by high unemployment and poverty rates. These areas are highly exposed to poor air quality and a lack of basic service delivery. The health of the population in these settlements is possibly compromised by the relatively poor air quality, particularly from exposure to airborne particulates.

One of the most effective ways to reduce air pollution in cities is by designating clean air zones. Clean Air Zones are specific areas of a city in which measures have been introduced to reduce toxic air pollution, prioritise people over cars, and promote a shift to active travel including walking, cycling and public transport. Clean Air Zones tackle congestion and improve road safety for cyclists and pedestrians, providing more opportunities for safe, healthy movement for everyone. In addition, they can be transformational in cutting local carbon emissions by promoting a modal shift in transport and reducing the number of polluting vehicles in the zone.

Clean Air Zones (CAZs) and transit-oriented development (TOD) strategies complement one another as both seek to improve air quality and reduce reliance on private vehicles. To support TOD development in Kliptown, students should integrate Clean Air Zone-related policies and strategies in their designs, such as:

- Prioritise public transport and active travel, with reallocation of road space to buses, pedestrians and cyclists, and car-free streets.
- Greening streets and creating more space for nature.
- Redesigning public space and implementing tactical urbanism projects.
- Expanding and electrifying the public transport network.
- Providing electric vehicle (EV) charging and incentivising EV uptake with grants and rebates.
- Promoting bike and car sharing.
- Launching communications or resident engagement campaigns.

All interventions should serve those most in need (e.g. already marginalised communities), address environmental inequity, and should be accessible to all. Students should have a clear plan to mitigate any potential impact of their interventions on local businesses and residents.

City Climate Priorities & Specific Environmental Challenges

The City of Johannesburg faces several significant environmental challenges, including:

1. **Inadequate Waste Management**: Rapid urbanisation has led to a substantial increase in waste generation.
2. **Water Pollution**: Rivers and freshwater water bodies are heavily polluted due to waste leakages and illegal dumping. This pollution affects both the environment and public health.
3. **Poor Air Quality**: Industrial activities, vehicle emissions, and the use of fossil fuels for energy and cooking by people living in informal settlements contribute to poor air quality in Johannesburg. This has significant health implications for residents.

In Johannesburg, between July 2023 and June 2024, 202 good air quality days were recorded with nearly 44% of the remaining days recording poor to moderate air quality levels. The city is addressing the problem through other air quality-related policies and plans such as:

- Improvements to the road transport network (focusing on active travel and public transport).
- Regulating industrial activities and attempting to control Tailing Storage Facilities dust.
- Solar water heating programme (for domestic properties)/
- Improving waste management and diverting more waste from landfills.
- Reviewing and updating the Air Quality By-Laws.

4. **Biodiversity Loss**: Clearing of forests for new developments and the sprawling urban forms destroys natural habitats and threatens local biodiversity and ecosystem services.
5. **Climate Change**: Johannesburg is vulnerable to the impacts of climate change, including extreme weather events, flooding and water scarcity.

To address the abovementioned challenges, the City of Johannesburg has been implementing several specific climate action initiatives to promote sustainability, reduce emissions, and enhance climate resilience. These coordinated efforts require the government, businesses, and residents to work together. Some of the key initiatives include:

1. **Joburg 2040 Growth and Development Strategy**: This framework lays out the City's vision for sustainable development, emphasising climate resilience and environmental sustainability.
2. **Greenhouse Gas Emission Inventory**: The city regularly monitors and reports its greenhouse gas emissions to inform policy decisions and target reductions effectively.
3. **Climate Change Adaptation Plan**: This plan focuses on enhancing the city's resilience to climate impacts, including strategies for managing water resources, improving infrastructure, and protecting vulnerable communities.
4. **Urban Greening**: Initiatives aimed at increasing green spaces, such as parks and urban forests, help mitigate heat island effects, improve air quality, and enhance biodiversity.
5. **Renewable Energy Projects**: The City is investing in solar energy and other renewable sources to reduce reliance on fossil fuels, including partnerships with private companies to harness solar power.
6. **Waste Management Programmes**: Johannesburg is working to improve its waste management systems, promoting recycling and reduction of landfill use, and aiming for zero waste.
7. **Public Transport Enhancement**: Initiatives to expand and improve public transportation networks, such as the Rea Vaya Bus Rapid Transit system, are designed to reduce vehicle emissions.
8. **Climate Resilient Infrastructure**: Investment in infrastructure that can withstand climate-related impacts, such as flooding, through better drainage systems and sustainable urban planning.

These initiatives contribute to efforts to create a more sustainable, resilient urban environment in Johannesburg.

Specific Planning Rules and Regulations

The main spatial and policy frameworks that guide development in Kliptown and the surrounding areas include:

1. **National Government:**
   a. Spatial Planning and Land Use Management Act (SPLUMA)
   b. National Development Plan and Integrated Urban Development Framework
   c. National Spatial Development Framework
   d. Green Book (CSIR)

2. **Provincial Government:**
   a. Gauteng Spatial Development Framework
   b. Gauteng 25-Year Integrated Transport Master Plan (ITMP25)

3. **Local Government:**
   a. CoJ Integrated Environmental Management Policy (2005)
   b. CoJ Spatial Development Framework (2024)
   c. CoJ Land Use Scheme (2018)
   d. CoJ Inclusionary Housing Policy (2019)
   e. CoJ Nodal Review Policy (2020)
   f. CoJ Climate Action Plan (2021)
   g. CoJ Green Building Policy (2018)

4. **Kliptown and surrounding areas:**
   a. Kliptown Urban Development Framework (2024)
   b. Soweto Strategic Area Framework (2022)

Language Requirements

Proposals must be submitted in English.

City-specific Awards

The winning teams will have an opportunity to exhibit and present their projects to various line departments and entities, including – amongst others:

- Development Planning (DP)
- Human Settlements
- Transport
- Economic Development (DED)
- Environment and Infrastructure (EISD)
- Johannesburg Development Agency (JDA)
- Johannesburg Property Company (JPC)

These departments and municipal-owned entities will then evaluate the best implementable options by focusing on the strategic development and redevelopment of the Kliptown Precinct. This will be achieved by releasing the state land to the private sector or entering into agreements with other spheres of government for development.