

DETAILED DISTRICT PHYSICAL PLANS
FOR KICUKIRO & GASABO
KIGALI, RWANDA

GASABO DISTRICT
KIMIRONKO URBAN DESIGN REPORT

MAY 2013

TASK ORDER 5: URBAN DESIGN



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PREFACE

PROJECT BACKGROUND

The City of Kigali (CoK), one of the most active and progressive City Councils of Africa, aspires to see Kigali develop as a competitive, safe and modern city. In the recent past, the Government of Rwanda has undertaken the preparation of several urban development plans as well as other studies related to transport, infrastructure, housing and environment for Kigali. Having completed the Kigali Conceptual Master Plan (2008) and Detailed Master Plans for Nyarugenge District (2010) the City now intends to develop Detailed Physical Plans for the other two Districts, namely, Gasabo and Kicukiro, so as to have an integrated detailed plan for the entire City.

PROJECT COMMISSIONING AND SCOPE

In early 2010, Surbana International Consultants, Singapore (Surbana) completed the Detailed Planning of Nyarugenge District, which included Detailed Urban Design for Kigali's CBD. In October 2011, through a public tender, the City of Kigali awarded the 'Design of Detailed District Physical Plans for Kicukiro & Gasabo' to Surbana.

This master planning project, in addition to the detailed planning of the two districts, has the following objectives:

- To review the planning direction and strategies for the entire City of Kigali, while integrating all the past planning and development initiatives undertaken.
- To prepare detailed master plan, urban design (for key areas) and development control guidelines for the two districts of Kigali, namely Gasabo & Kicukiro. This would also include the review and revision of the Detailed Master Plan for Nyarugenge District,
- To establish a GIS database for the entire City which has a coordinated base map, proposed land use plan

& development control information for all areas of the City of Kigali. This GIS system would form a part of the MIS system being put in place by the Government.

- To ensure participation of the various stakeholders in the development of the Master Plan so as to develop a plan that reflects the needs and aspirations of the City's residents.
- To conduct capacity building of the CoK staff through training programmes in Singapore and Kigali.

PROJECT ORGANIZATION & SCHEDULE

The project is spread over one year and comprises of the following 6 task orders, each with a duration of 2-4 months:

- Task Order 1: Start-up, Reconnaissance & Base-mapping**
- Task Order 2: Existing Conditions Analysis & Vision Formulation**
- Task Order 3: Preparation of Conceptual District Plan**
- Task Order 4: Preparation of Schematic District Plans**
- Task Order 5: Preparation of Detailed Urban Design**
- Task Order 6: Preparation of Implementation Plans**

PROJECT PROCESS

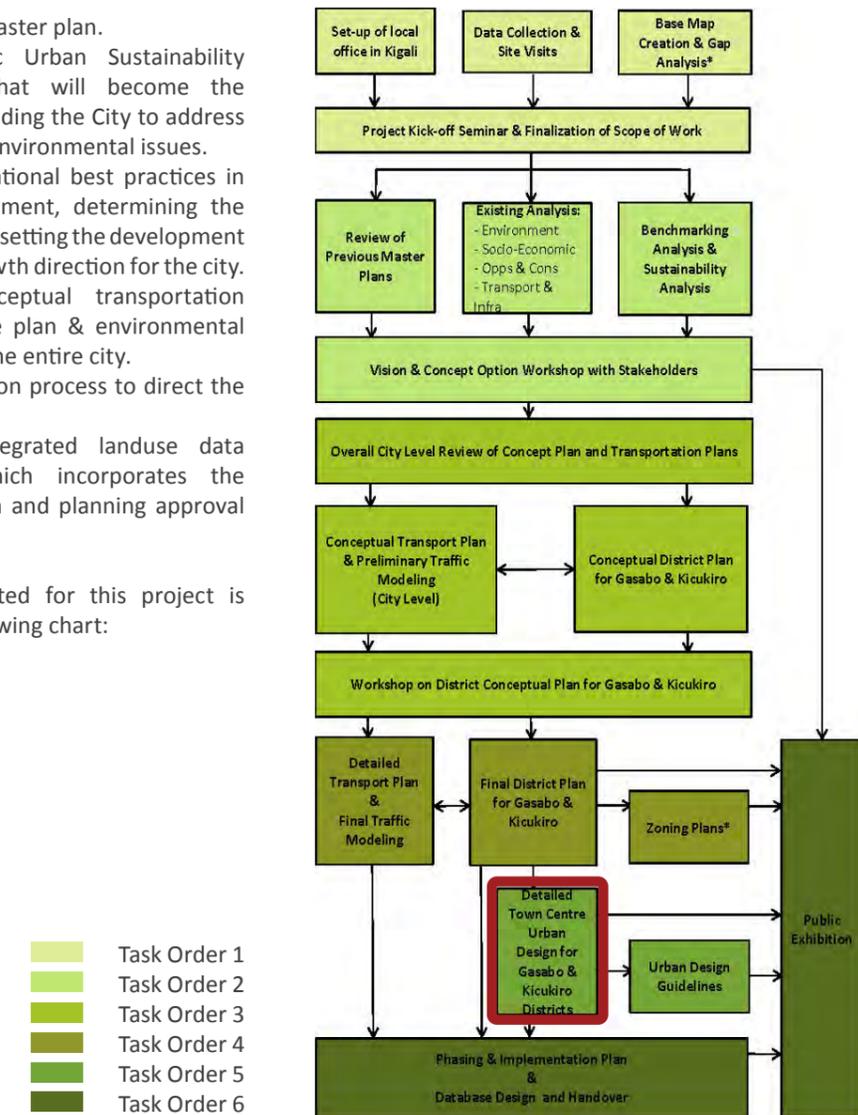
In line with the project scope discussed above, the process to be adopted for this project is as elaborated below:

- Establishment of a proper working base map which incorporates all land use related information for developing the master plan.
- In-depth analysis of various issues facing the City and stock-taking of previous master plans and infrastructure planning initiative in the City in order

to develop an integrated Master plan.

- Establishing the strategic Urban Sustainability Framework for Kigali, that will become the overarching framework, guiding the City to address its key economic, social & environmental issues.
- Benchmarking with international best practices in city planning and management, determining the future growth scenario, and setting the development vision and the strategic growth direction for the city.
- Development of a conceptual transportation master plan, infrastructure plan & environmental management strategy for the entire city.
- Mapping out implementation process to direct the implementation process.
- Putting in place an integrated landuse data management system which incorporates the base map, the Master plan and planning approval process.

The planning process adopted for this project is further illustrated in the following chart:



PROJECT DELIVERABLES

Various reports, corresponding to the various task orders are to be submitted, which include:

Task Order 1:

- Inception Report

Task Order 2:

- Analysis, benchmarking and Visioning Report

Task Order 3:

- Conceptual Transportation Plan report
- Conceptual Plan report

Task Order 4:

- Final Transportation Plan report
- Final Gasabo Master Plan report
- Final Kicukiro Master Plan report
- Gasabo Zoning booklet
- Kicukiro Zoning booklet

Task Order 5:

- Gasabo Town Centre Urban Design report
- Kicukiro Town Centre Urban Design report
- Gasabo Town Centre Zoning booklet
- Kicukiro Town Centre Zoning booklet

Task Order 6:

- Implementation report

In addition to the above reports, various marketing and promotional materials to illustrate the master plan would also be prepared for the public exhibition. A Geodatabase, incorporating the existing land use map, the proposed land use plan & the development control information would be submitted at the completion of the project.

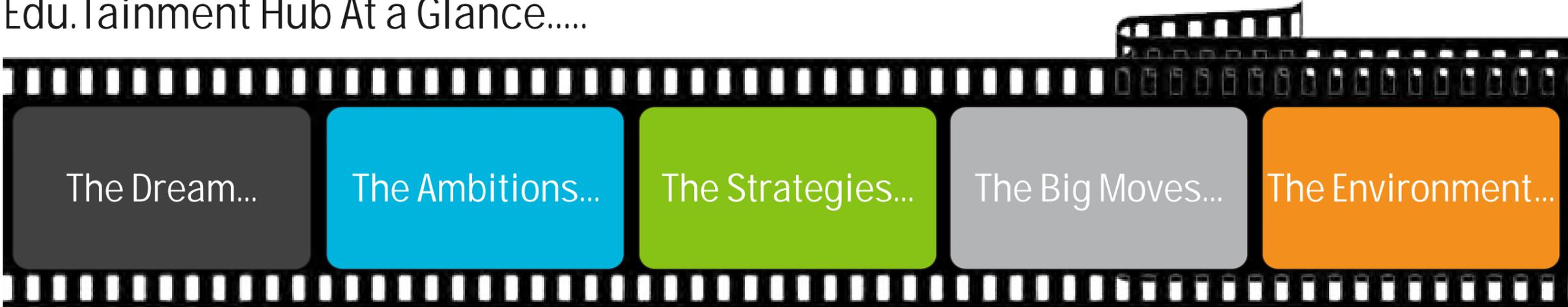
STAKEHOLDERS' PARTICIPATION & CAPACITY BUILDING

A key component of the project would be to ensure adequate participation in the planning process from various stakeholders such as decision-makers from public and private sectors, focus groups, community organizations and various public interest groups. Accordingly numerous meetings, seminars and workshops are to be conducted at all stages of the project. A public exhibition of the master plan will be undertaken at the end of the project with an objective to launch the master plan.

In addition a communication plan, executed through various print, broadcasting & online media would ensure participation and feedback from the wider public.

This comprehensive city wide plan, incorporating the detailed physical plans of the two districts as well as all the past planning initiatives would become the long term development framework for Kigali City, guiding it into an era of progressive and holistic city development.

Edu.Tainment Hub At a Glance.....



The vibrant EDU.TAINMENT HUB of Kigali

The Lively Education and Entertainment Destination of Kigali.

- State of art Public Transit
- Rationalizing road transport
- Key nodes as catalysts
- Rejuvenate existing open space
- Regenerate existing precincts
- Safe and enjoyable walking experience
- New Edu.Tainment Node
- Car Parking
- Street edge and Streetscape

- Central Green
- Linear Park
- Gisimenti Gateway
- Amahoro Civic Square
- Kimironko Market
- Mixed Use Community
- Retail District
- Entertainment District

- Density, Diversity and Mix
- Pedestrians First
- Transit Supportive
- Place-Making
- Complete Communities
- Integrated Natural Systems
- Local Sources
- Engaged Communities
- Redundancy and Durability
- Resilient Operations

The New Marker of Activity Nodes of Kigali.

The First Choice Destination for Exciting Street Fronts in Kigali.

The Epitome of Sustainable Compact Design.

The Leading Education and Entertainment Destination of Kigali.



The New Marker of Activity Nodes of Kigali.



The First Choice Destination for Exciting Street Fronts in Kigali.



The Epitome of Sustainable Compact Design.

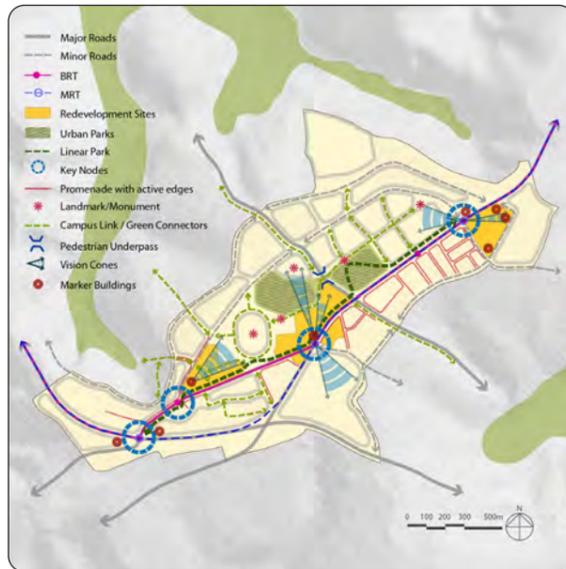


Executive Summary

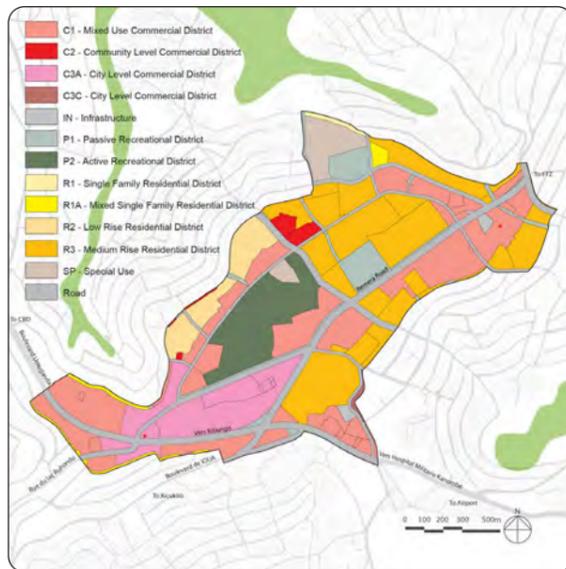


The vibrant EDU.TAINMENT HUB of Kigali

The Framework



Structure Plan



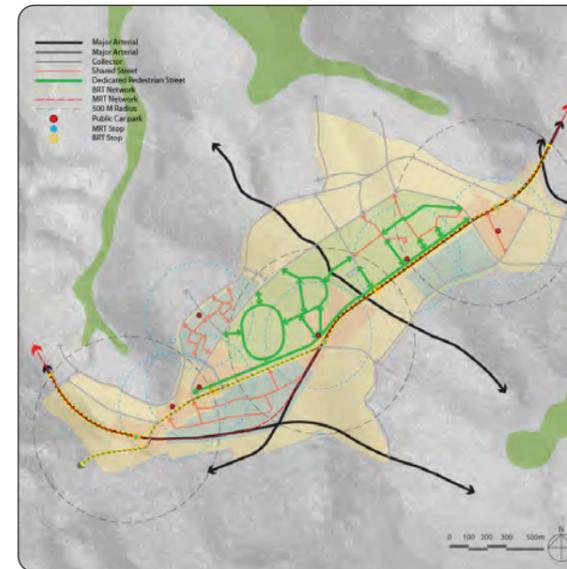
Proposed Land Use

Structuring Elements

- State of Art Public Transport
- Rationalized Road Transport
- Key Nodes as Catalysts
- Rejuvenated Open Spaces
- Regenerated Precincts
- Safe and Enjoyable Walking Experience
- Managed Vehicular Parking
- Quality Streetscape

Proposed Land Use

- The proposed Urban Design solution has been developed with a purpose of strengthening the overall land use.
- Emphasis has been given on flexibility in the use by earmarking a large percentage of land as mixed-use, which is concentrated along the Remera road between the 3 key nodes.
- The Central Green area comprising of the education and the sports activities forms the central open space and the core focus for the Urban Design.
- Residential uses are limited to the quieter areas along the periphery of the Urban Design area where the land starts sloping down to the wetlands.
- Commercial uses are concentrated around the transit nodes at Amahoro Civic Square and Kimironko Market.



Connectivity Plan



Green and Blue Plan

Improved Connectivity

The Urban Design Area has been strategically located to be a successful well-connected development served well by road and air links. While the area benefits from a range of good transport connections, the quality of the transport environment and the connectivity requires improvement.

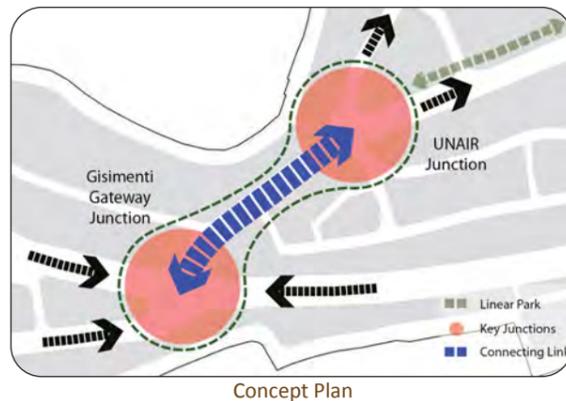
The challenge for the future is to improve the quality and the efficiency of the transport and pedestrian networks. The Urban Design encourages people to walk, bike, and use public transport and also provides a public parking strategy to resolve the current parking issues.

Green Strategy

In order to create a more livable and well-connected development, the Urban Design suggests solutions to improve and expand the fragmented open space network and walking routes. The design proposes a high quality wide network of open spaces connected by walkways to create a pleasant pedestrian experience that is safe and legible.

Key Nodes

Gisimenti Gateway



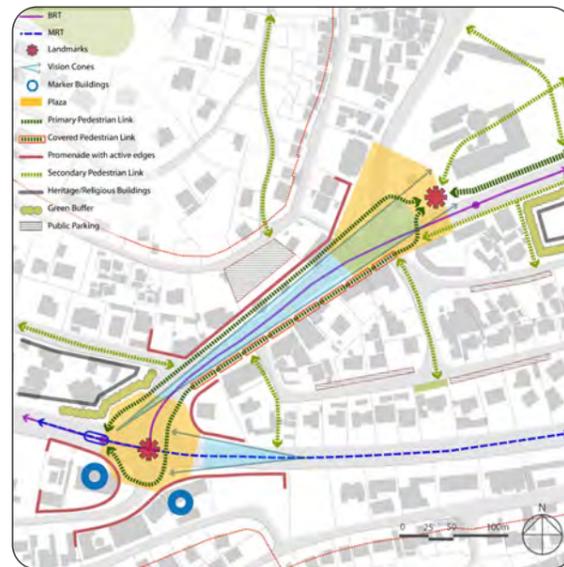
This is the first node in the approach path from the Kigali International Airport to the “Edu.Tainment Hub” and further goes on to connect to the city center. Therefore, the stretch between Gisimenti junction and the present UN building requires special treatment. The node has been primarily designed as a gateway to a vibrant commercial destination. A strong sense of arrival and surprise marks the character of the node. It is the starting point of the Edu.Tainment Hub, and also forms the origination for the gradually ascending Linear Park that connects the three key nodes.

Place Making Strategies

Strong sense of arrival and surprise

Well defined active edges

Public realm continuity



Urban Character



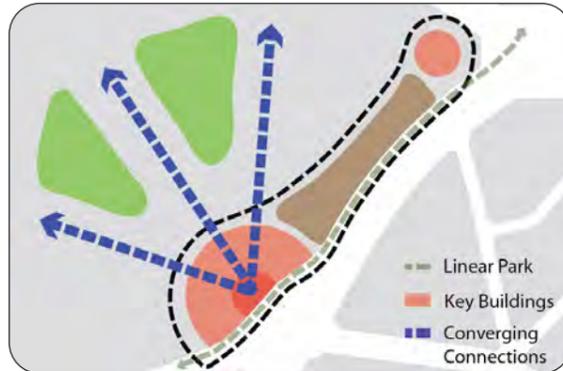
Artist's Impression



Streetscape

Key Nodes

Amahoro Civic Square



Concept Plan

A new development node has been conceived at the confluence of the Sports and Education facilities. It stretches across either side of the road junction formed by the intersection of Remera Road and the realigned Intwari Road. This development will act as the anchor and point of reference for the surroundings. The civic activities within this precinct will include museums, cultural centre, libraries, and so on, that will also complement the surrounding commercial activities. The proposal aims at creating a civic destination and a point of convergence through the Central Green.

Place Making Strategies

Sense of convergence

Civic destination within a green setting

Permeable built form



Structure Plan



Illustrative Plan



Urban Character



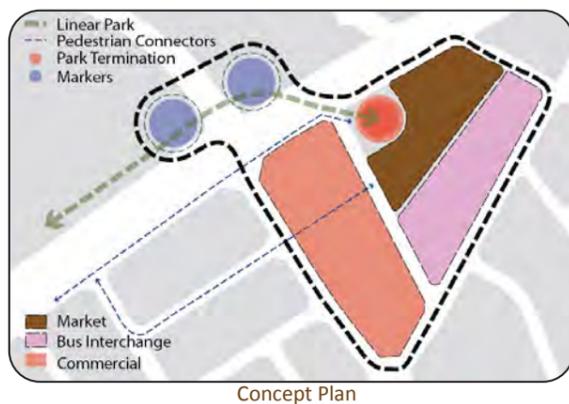
Artist's Impression



Streetscape

Key Nodes

Kimironko Market



The Kimironko Market forms the termination of the Linear Park that connects all the key nodes in the Edu. Tainment Hub. It has been conceived as a bustling marketplace with an integrated bus interchange. The solution capitalizes on the existence of the Kimironko market and proposes to enhance its image without losing the informal character of the space. An additional commercial component makes redevelopment viable and takes advantage of the site proximity to the MRT and BRT.

Place Making Strategies

Anchoring the Linear Park

Integrated Transport Hub

Creating an Active Urban Space



Urban Character



Artist's Impression



Streetscape

Catalyst Projects

Key projects have been identified to become catalyst projects in the initial stages to kick start regeneration of the area. The main purpose of the catalyst projects is to stimulate development in the areas in line with the design ideas and demonstrate a quality development that will set the standard for the surrounding developments. It is important that these projects are implemented in a timely manner in order to trigger the development while creating local employment and housing supply.

Selection Criteria

- Minimal ownership constraints.
- Capability to showcase potential solutions for urban regeneration.
- Possibility of execution of the project within a reasonable time frame of 5 to 10 years.
- Capacity to attract investment.
- Potential for PPP mechanism for execution.
- Possibility of taking advantage of the existing infrastructure.



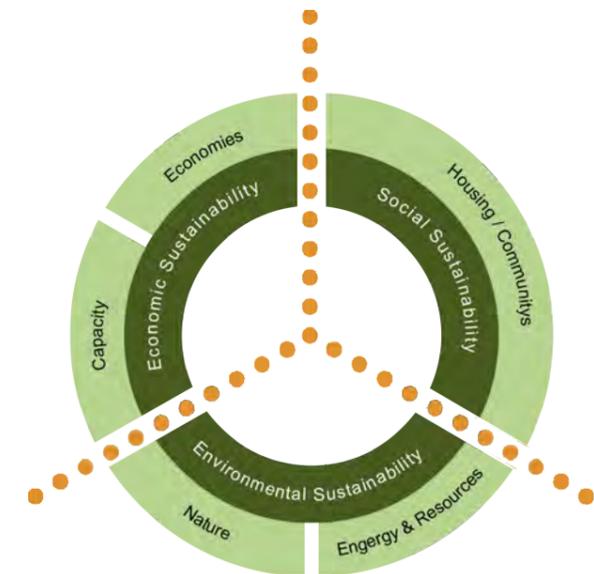
Key Plan

Identified Projects

1. Remera road linking the 3 nodes
2. Realigned Intwari Road
3. Public Parking Building at Gisimenti Gateway
4. UNAIR Building + Hotel + Public Parking
5. Commercial Buildings at Amahoro Civic Square
6. Kimironko Market development
7. Corner Buildings + Underground Plaza at Gisimenti
8. Central Green Landscape

Sustainability Measures

The Urban Sustainability Framework at the planning level translates to the urban design of the Edu.Tainment Hub. It looks at the three pillars of sustainability - social, economic and environment. Sustainable strategies are integrated in many aspects of the urban design. Ideas of creating a “Resilient City” is an inherent part of the design strategy. The plan is conceived to be flexible and dynamic to address future shocks and stresses associated with climate change, environmental degradation and resource shortages in the context of population growth.



Urban Sustainability Framework for Kigali

Master Plans should be taken closer to the people.
- The New Times, Rwanda.



The master plan will look at sustainable development alternatives for Kigali-OSC.



We need to know how to value the ecosystem services and their contribution to our planet.
- The New Times, Rwanda.



I call upon investors from within and outside the country to seize the opportunity created by the rapid growth of our city to make money.
-The New Times, Rwanda.



Designate areas for different activities and ensure that all amenities are in place to facilitate the investors.
-The New Times, Rwanda.



A key element for sustainable growth of Kigali is the provision of decent housing for all.
-The New Times, Rwanda.

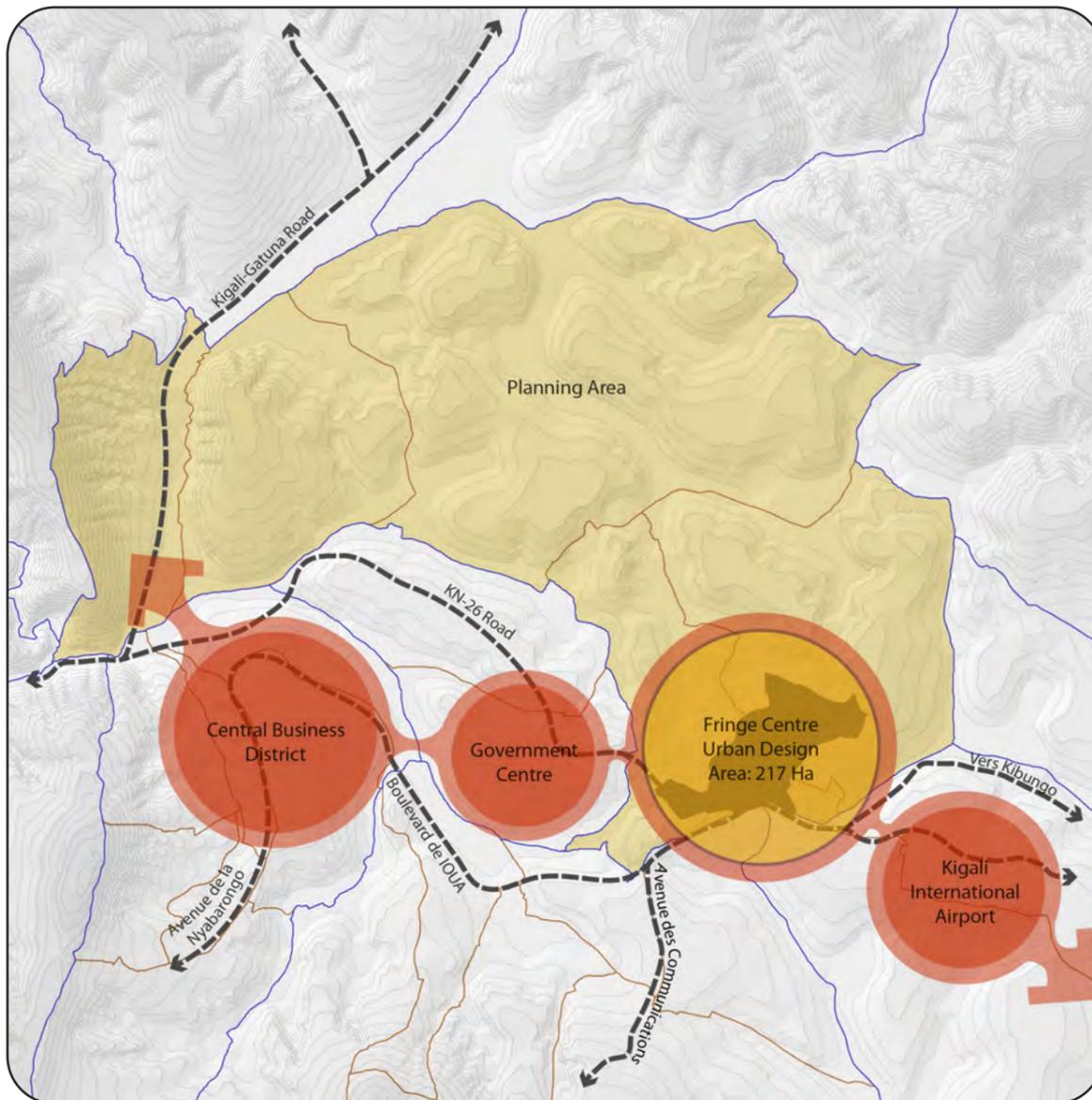


Real Estate is one of the most vibrant sectors at the moment.
- The New Times, Rwanda.



1

INTRODUCTION



Selection of Urban Design Area

Selecting the Site

The Urban Design area has been selected keeping the vision of the master plan in mind, and by identifying development gaps that need to be filled within the district. The master plan highlights Kimironko to be developed as a Fringe Center. The Urban Design proposal addresses these issues and strengthens the vision.

The Kimironko-Gisimenti area measuring about 217 Ha has been identified in the Gasabo district for this purpose. This site proposes to give an identity to the missing link of development between the Central Business District and the Government Centre taken together, and the International Airport.

The Urban Design proposal will translate the zoning and land use to a three dimensional Urban Design solution. It will enhance the character and identity of this area to become a special feature in the city, and act as a catalyst in the regeneration of Kigali.

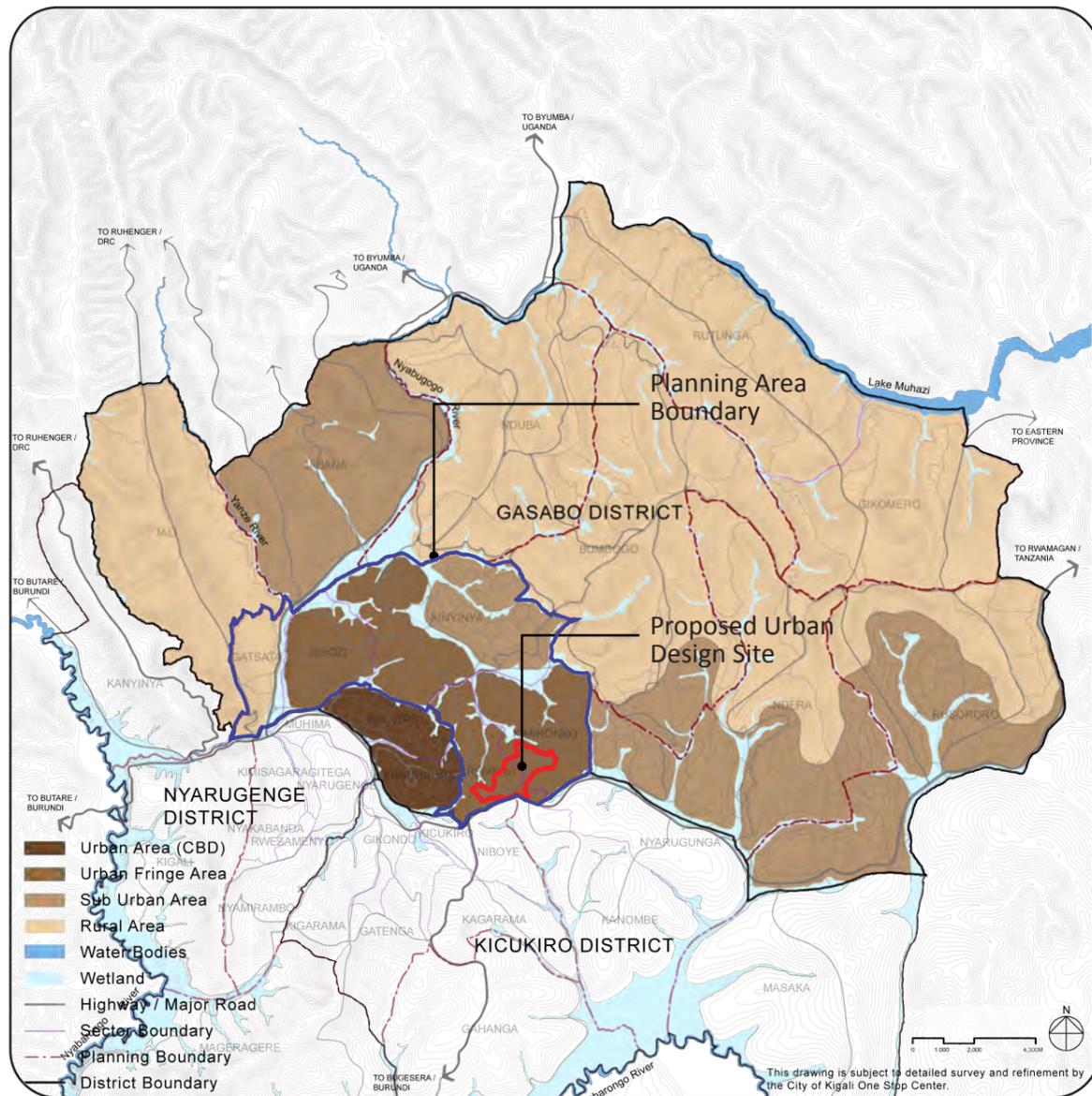
Positioning the Urban Design Area

The proposed site is an upcoming fringe center with the Kigali Institute of Education and the Amahoro Stadium as the key developments. These give it a unique character in contrast to the CBD and the government center. The area has been positioned to capitalize on these existing education and sports facilities and develop as a fringe center by taking advantage of its physical location between the Kigali International Airport and the CBD.

This unique vision of capitalizing on the sports and education at the core of the development, gives it a unique identity to the area in relation to other districts of Kigali.

Urban Design Area 217 Ha





Gasabo District - Proposed Land Utilisation Strategy Plan

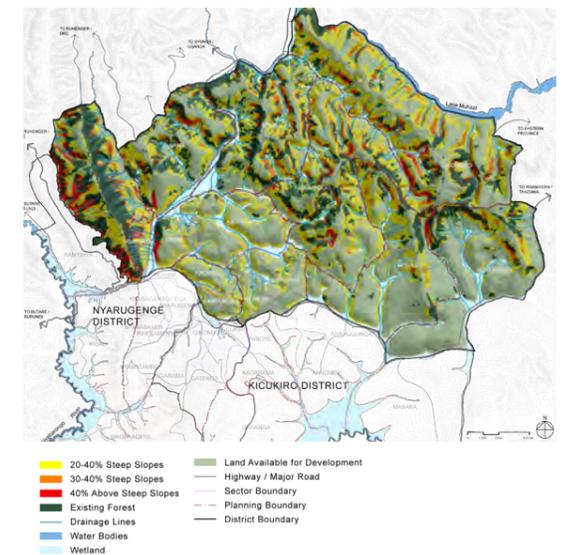
Regional Context of the Site

Kigali city comprises of three districts Nyarugenge, Kicukiro and Gasabo. Gasabo is the largest of all of the districts with a total area covering 429.3 Km², this is approximately 60% of the total area of Kigali city.

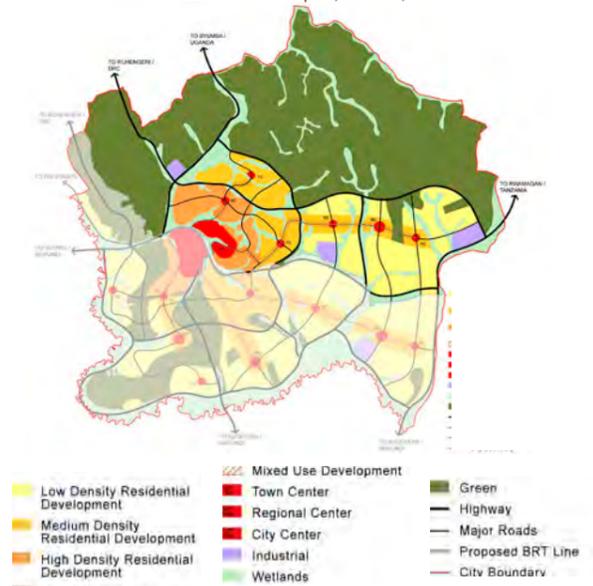
The existing international airport lies to the south of Gasabo District, in Kicukiro District. The proposed international airport at Bugesera is approximately 30 Km south from Gasabo District.

The major connections to the site are the Vers Kibungo that provides east west connectivity at the southern edge of Gasabo. The connection further extends to the neighboring cities of Rwamagna to the east and Butare to the west. This also connects the district to the neighboring countries of Tanzania to the east and DRC/ Burundi to the west.

In comparison with the other parts of the district, the urban sectors of Gasabo, Kimironko sector has an extensive road network of both paved and unpaved roads.



Natural Constraints: Slopes, Forest, Wetland



Gasabo in the Proposed Radial City - Conceptual Structure Plan

Context



City

Area
730 sqkm
Population
965,000

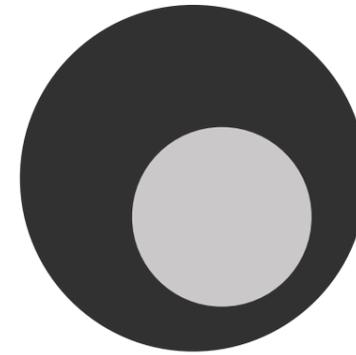
Planning Area

Area
57.7 sqkm
Population
211,000

Urban Design Area

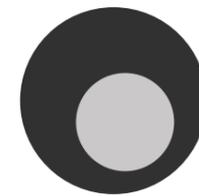
Area
2.16 sqkm

Urban Design Area Before and After



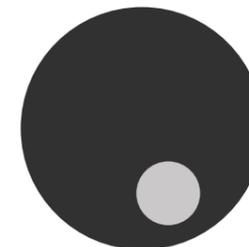
Existing GFA
0.8 million sqm

Proposed GFA
1.67 million sqm



Existing Residential
0.32 million sqm

Proposed Residential
0.58 million sqm



Existing Commercial
0.18 million sqm

Proposed Commercial
0.96 million sqm

* The above numbers are estimates and may vary from actual figures



The Urban Design Area as it is today

Existing Land Use

RESIDENTIAL
More than 34% (75.4 Ha) of the site is under residential use, mostly Single Family homes. They occupy the sloping parts of the site towards the periphery.

COMMERCIAL
Commercial uses are scattered along the major roads and occupy about 6.7% (14.5 Ha) of the total site area. There is a large concentration of the commercial buildings concentrated near the Kimironko Market.

SPORTS AND RECREATION
This is the 3rd largest use occupying about 10% (21.2 Ha) of the site with the Amahoro Stadium at the center. It sits on a plateau and is prime property in the central core of the development.

EDUCATION FACILITIES
These facilities also occupy the prime plateau land to the east of the sports facilities. It primarily comprises of the KIE facilities including a primary school and college level facilities, spreading over 8.5% (18.7 Ha) of the site.

RELIGIOUS FACILITIES
The existing religious facilities such as the Center Christus and other churches give a unique identity to this area. They occupy about 7.9% (17 Ha) of the site and scattered all around the development.

GOVERNMENT OFFICES
A lot of land within the site is owned by the government, mostly adjacent to KIE. Even though the land use shows an occupation of more than 6% (13 Ha) of the site, the actual built up quantum is very less.

GRAVEYARD
There are 2 important graveyards that need to be preserved. First, the Heroes Park near KIE, and second, the Remera Cemetery on the northern corner of the site. They occupy about 3.4% (7.3 Ha) of land area.

VACANT LAND
A few parcels of the site are vacant with good potential for development. They occupy about 6.8 Ha of land.

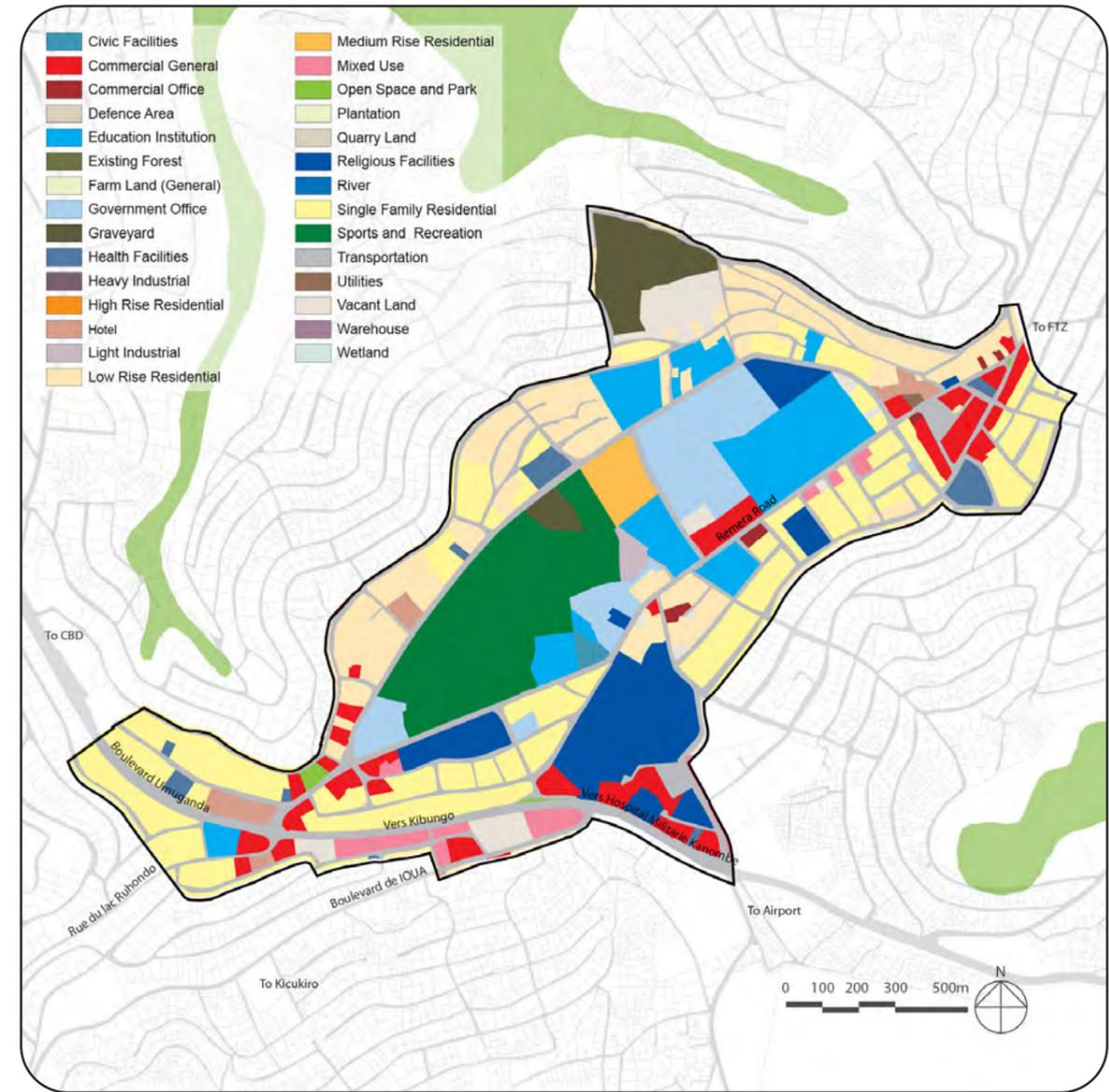
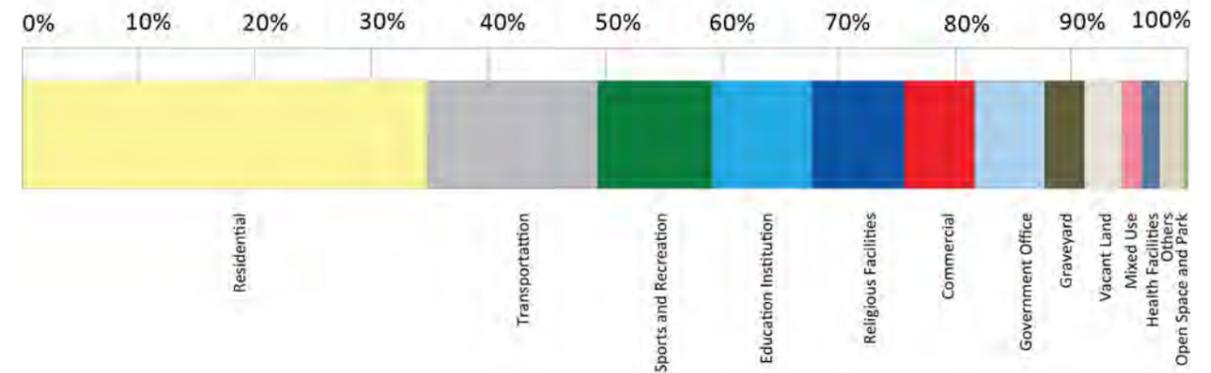
MIXED USE
A very meagre amount of land is currently being used for mixed used developments. They are mostly located along the Vers Hospital Militarie Kanombe on the approach to and from the airport, and a few parcels along the Remera Road near the Kimironko Market.

HEALTH FACILITIES
Only one major health facility, the Kimironko Health Center near the Kimironko Market, and a polyclinic are located within the Urban Design Area. This land use occupies about 1.5% (3.14 Ha) of land.

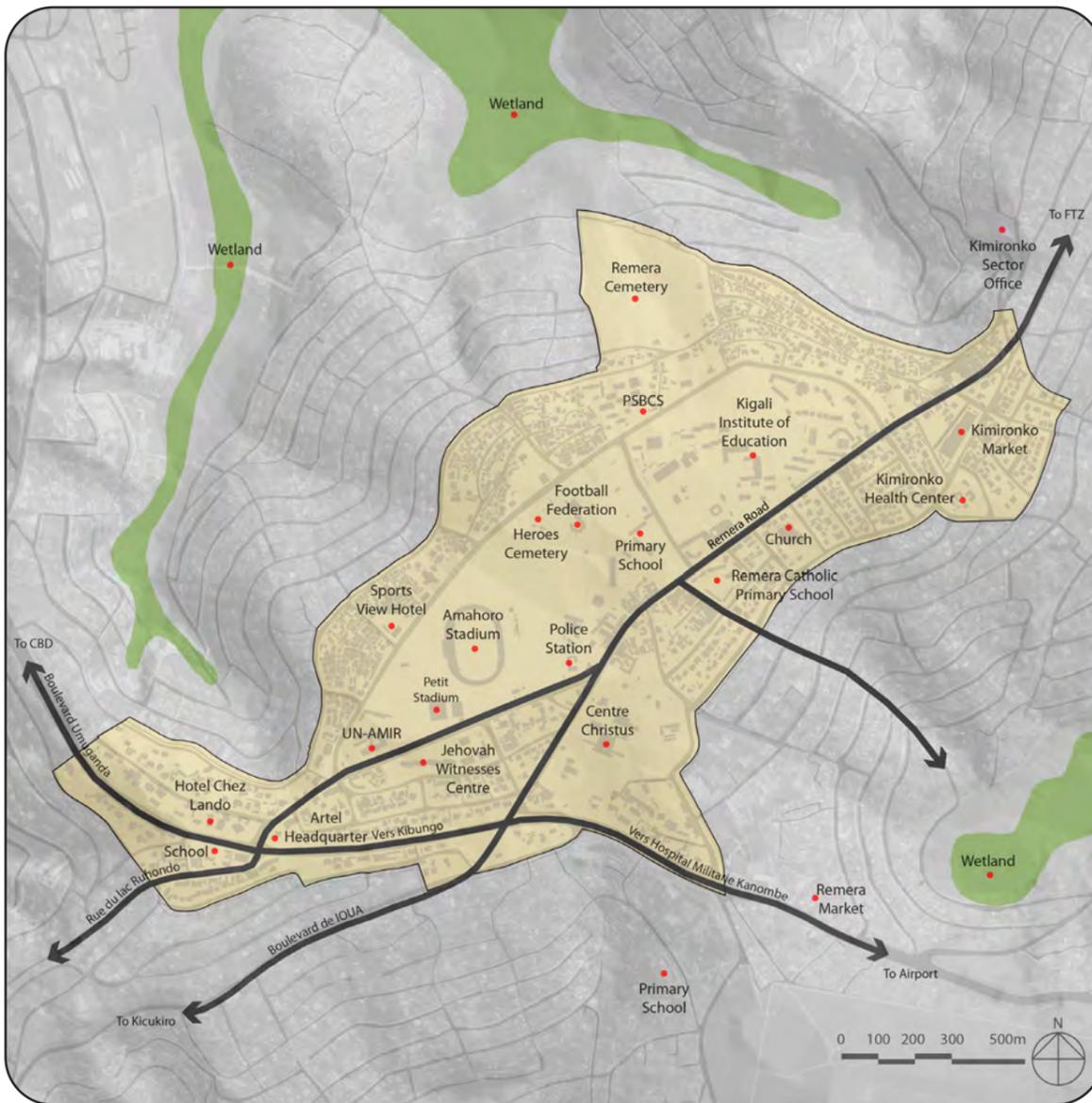
OPEN SPACES AND PARKS
There are close to no open space and parks within the site. This use occupies one of the least quantum of land. Even the existing ones are not strategically located and are fenced up in many instances.

TRANSPORTATION
The only mode of existing transport is by road. They occupy about 15% (31.8 Ha) of land. Many of the roads in the residential areas are not mud roads.

OTHERS
This includes the uses that occupy less than 1% of the land, such as light industrial, civic facilities, farmland and utilities, together forming 1.25% of the total.



Existing Land Use



Site Context

Location

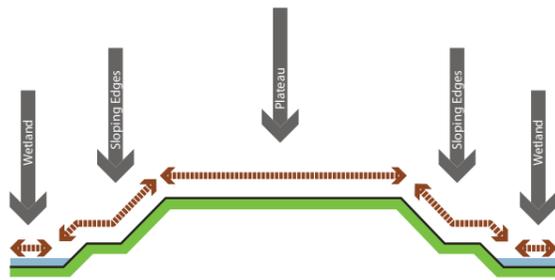
The Urban Design area forms a part of the G4 township within the Gasabo District. It is strategically located on the fringe of the Kigali city. It is less than 1km away from the Kigali International Airport. The designated site is spread over 217 Ha of land. The Amahoro Stadium and the Kigali Institute of Education (KIE) form the central core of the area. The site spans between the Kimironko Market to the north-east and the Gisimenti Commercial area to the south-west.



A Kigali International Airport located to the south of the Urban Design Area.

B Amahoro Stadium in the central core area of the site.

C The KIE occupying the central flat portion of the site.



Terrain

The site is sitting on a flat ridge and starts sloping down on the sides. The highest part of the site is about 100 to 120 meters above the level of surrounding wetlands in the valleys. The difference in levels within the site is about 80 meters. The highest point is near the KIE and the lowest point is near the Remera Cemetery.

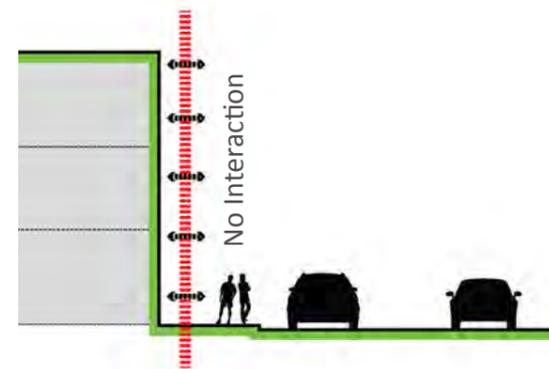
Open spaces

The site does not have a well developed network of open spaces. Most of these spaces are fenced-up and not accessible to the residents. The existing open spaces are fragmented and scattered around the site without any strategic location to make them accessible to most of the people.

A Kigali Institute of Education occupies the highest point in the site.

B The sloping edges of the site mostly occupied by single family residential.

C Fenced up green areas on the site not accessible to the residents.



Streetscape

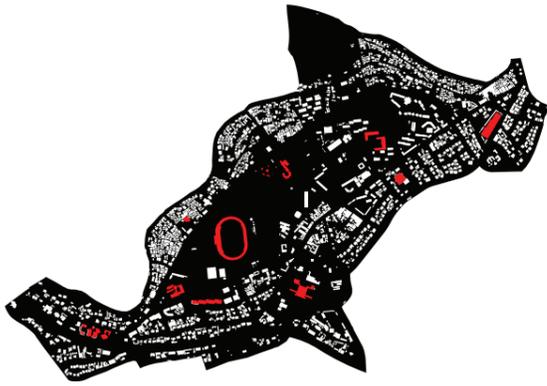
The interaction between the building and street edge is poor in many cases with dead walls or fenced up edges facing the road. The pavement has been encroached upon by parked cars and hawkers creating obstructions for pedestrians and forcing them to use the vehicular road for walking. The walking experience is further made uncomfortable by the lack of shade by trees and street furniture. The haphazard street signage also needs to be managed in order to define the street character.

A The existing Gisimenti roundabout that marks the gateway to the development.

B Pedestrian and vehicular conflicts make the streets unsafe for the pedestrians.

C Chaotic street with vehicle encroachment of footpaths and no street identity.





Building Typology and Landmarks

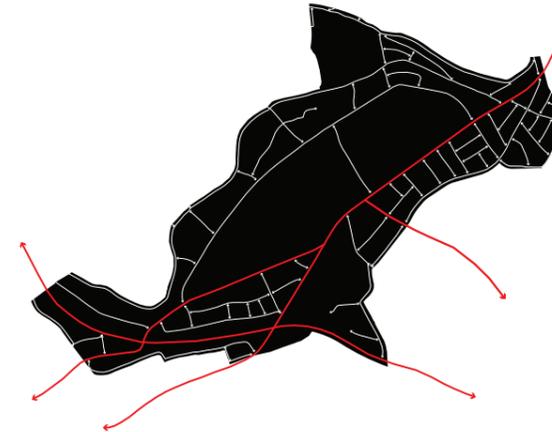
The central plateau, which occupies the highest part of the site, houses institutional developments like the KIE, the Football Federation, the Amaharo stadium and the UN building. Religious buildings, which include the Central Christus, the Adventist church and several smaller churches, are scattered around the site. There are two heritage sites that need to be preserved, namely, the Hero's Cemetery adjacent to the Football Federation, and the Hotel Chez Lando.

Commercial developments are scattered along the 2 main roads. These include the cluster of hotels at Gisimenti, the market at Kimironko, and utilities such as gas stations. Single family residential developments are spread along the outer periphery of the site where the land begins to slope down. In addition to these developments, there are a few pockets of unplanned development along the northern periphery of the site.

A Unorganized commercial development along Remera road.

B One of the several churches that characterize the Urban Design area.

C Kimironko Market that is a major landmark and tourist attraction



Connectivity

The Urban Design area gets access from two major city roads. The first one is the Umuganda Boulevard that cuts through the southern part of the site. It connects the site to the Kigali International Airport to the south-east and the CBD area to the west. The second important road connection is the Remera Road. It travels along the southern edge of the KIE and connects the Kimironko area in the north-east to the Gisimenti area to the south-west.

The existing roads are very narrow and will not be capable of handling the load of existing and future traffic. In addition to this, there is very little space for road widening as the buildings are abutting the road edges in many cases. There is already heavy congestion caused at the junctions because of these conditions. The problem is further aggravated by the vehicles parked on the footpaths due to lack of sufficient parking provisions.

Bus connectivity is established along the 2 major roads with two bus interchanges, one at Kimironko (local buses) in the North, and the other near Giporoso (regional buses) in the south. The proximity of the international airport gives this area a great advantage of air connectivity as well.

A The current bus interchange near the Kimironko Market is very unorganized.

B Road infrastructure is very poorly developed for the lower hierarchy roads.

C Inefficient road and junction design slow down commuters and lead to traffic jams.



The Urban Design Area as planned for

District Master Plan (DMP)

The vision for Kigali is to be “The Centre of Urban Excellence”. The district master plan translates and sharpens this broad planning directive set at the regional level into a detailed master plan for the Districts. This broad vision for the entire city identifies the focus for each of its three districts. The roles set for the three districts are:

- NYARUGENGE
Green Financial Hub and Vibrant Growth Centre of Kigali
- GASABO
Diverse Employment Hub and Cultural Heartland of Kigali
- KICUKIRO
Progressive Knowledge Hub and Green Gateway of Kigali

With many of the government and administration institutes located within the district, Gasabo has been identified as Rwanda’s Employment and Cultural Hub. This unique identity helps to position Gasabo. The District Master Plan elaborates the district’s land uses and explains how the various uses such as employment, living areas and facilities as well as the institutes are distributed and organized.

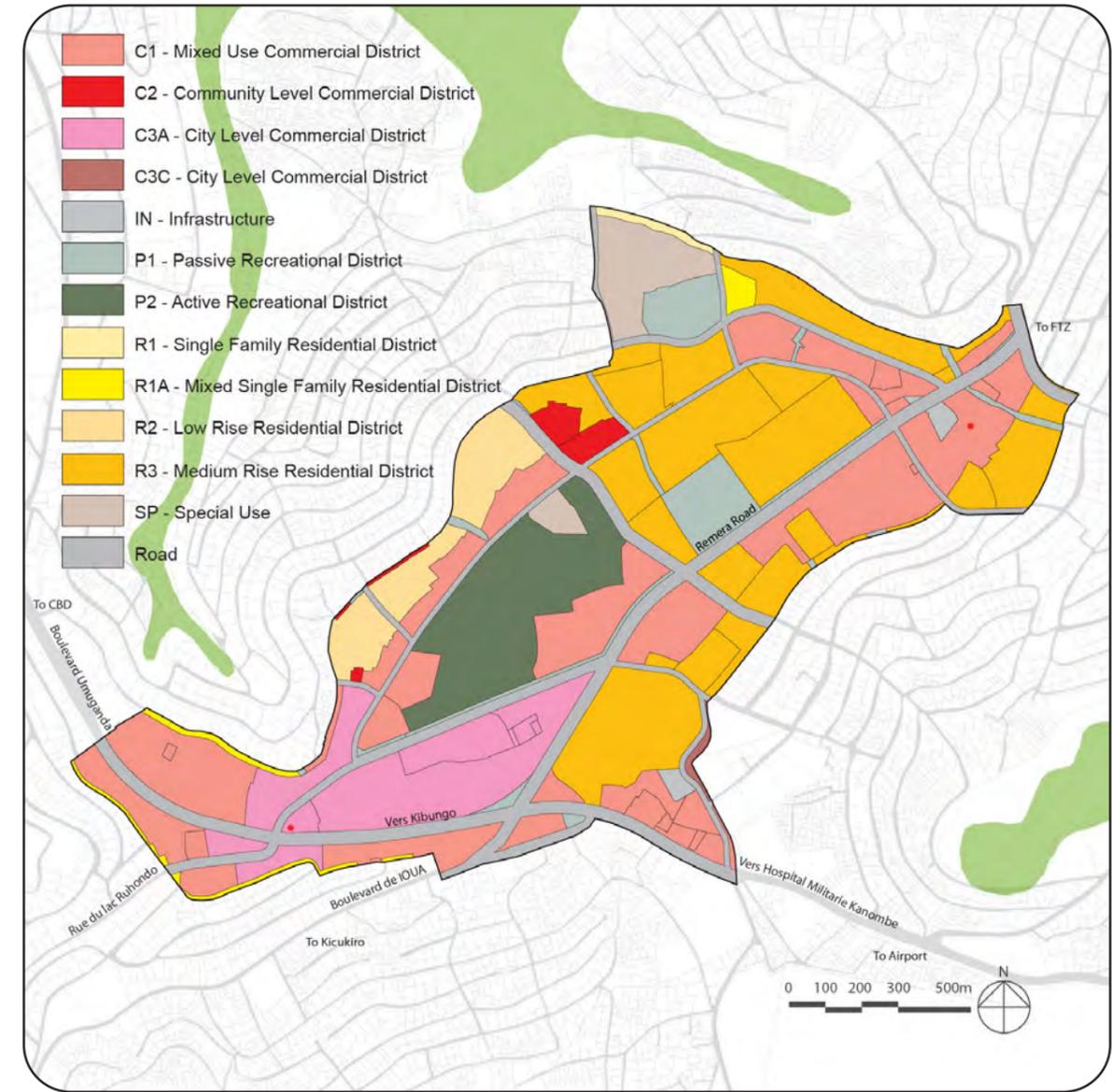
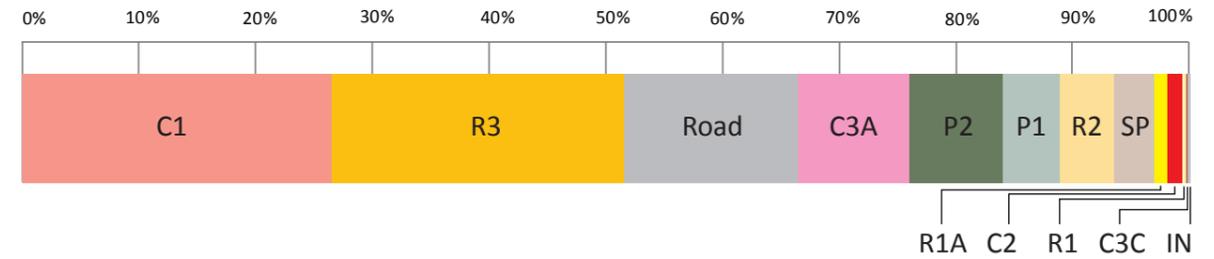
The Urban Design proposal advances the above concept. It focuses on the identified site to demonstrate a detailed urban design solution to convert the vision to a reality and showcase a high quality urban regeneration scheme.

Land Use Strategy and Zoning

The objectives of the Zoning for Gasabo District are to provide a clear mechanism for the implementation of the Gasabo District Master Plan, and to direct public and private sector development to follow a clear set of development objectives, definitions and regulations that reflect the vision and concept proposed in the Master Plan. The objectives, definitions and regulations ensure that development is carried out to achieve a logical, attractive and livable development pattern in the City, safeguard privacy and amenities, and provide opportunities for growth, with enough flexibility to respond to changing business needs and development trends. The regulations place an emphasis on encouraging sustainable development and design in order to achieve a quality and sustainable living environment.

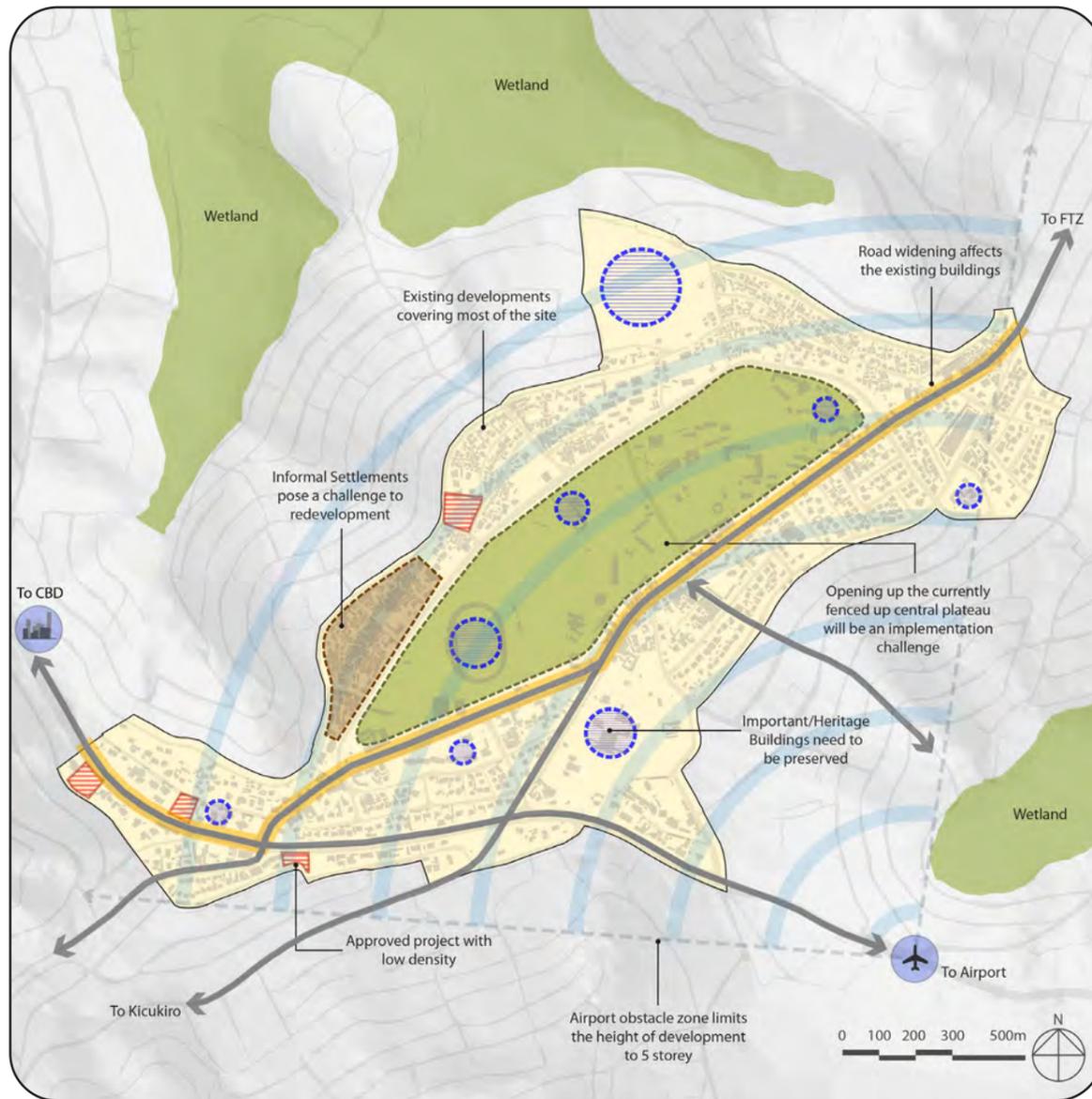
The Zoning Plan for the Gasabo District stipulates the land use and development controls for the Urban Design site. However, the Urban Design guidelines will overrule the regulations imposed by the Zoning Plan. The Urban Design plan follows the zoning guidelines wherever possible, except for in places where there is need to modify the regulations to improve the character of the area considering the concept of the Urban Design.

The detailed land use for the site has been developed strategically and will be discussed in the subsequent sections of the report.



Zoning Plan

2 MAPPING THE POTENTIAL



Constraints

Constraints

- Existing development covers most of the site posing a difficulty in proposing redevelopment of the area.
- The site houses several important and heritage structures that need to be retained.
- The presence of the Kigali International Airport poses height restrictions to the development on the site and limits it to five floors in most parts.
- Developing the site as a new administrative hub is a challenge because of its considerable distance from the Central Business District.
- The new proposals will add more traffic and load to the currently overloaded infrastructure.
- The approved projects occupy large areas of relatively flat developable land and are relatively

- lower density. This is a major constraint when the need is to develop higher density developments within core areas.
- The current parcel sizes do not conform to the zoning regulations and will need to be amalgamated in many instances.
- The widening of roads poses a threat to the developments falling within the widening zone and need to be looked at carefully.
- Some informal residential settlements on the fringe of the site pose a challenge to relocate the existing users and to redevelopment.
- Opening up the currently fenced central plateau that houses sports and education facilities will be an implementation challenge.

Public interest should be highlighted against private interest in planning.



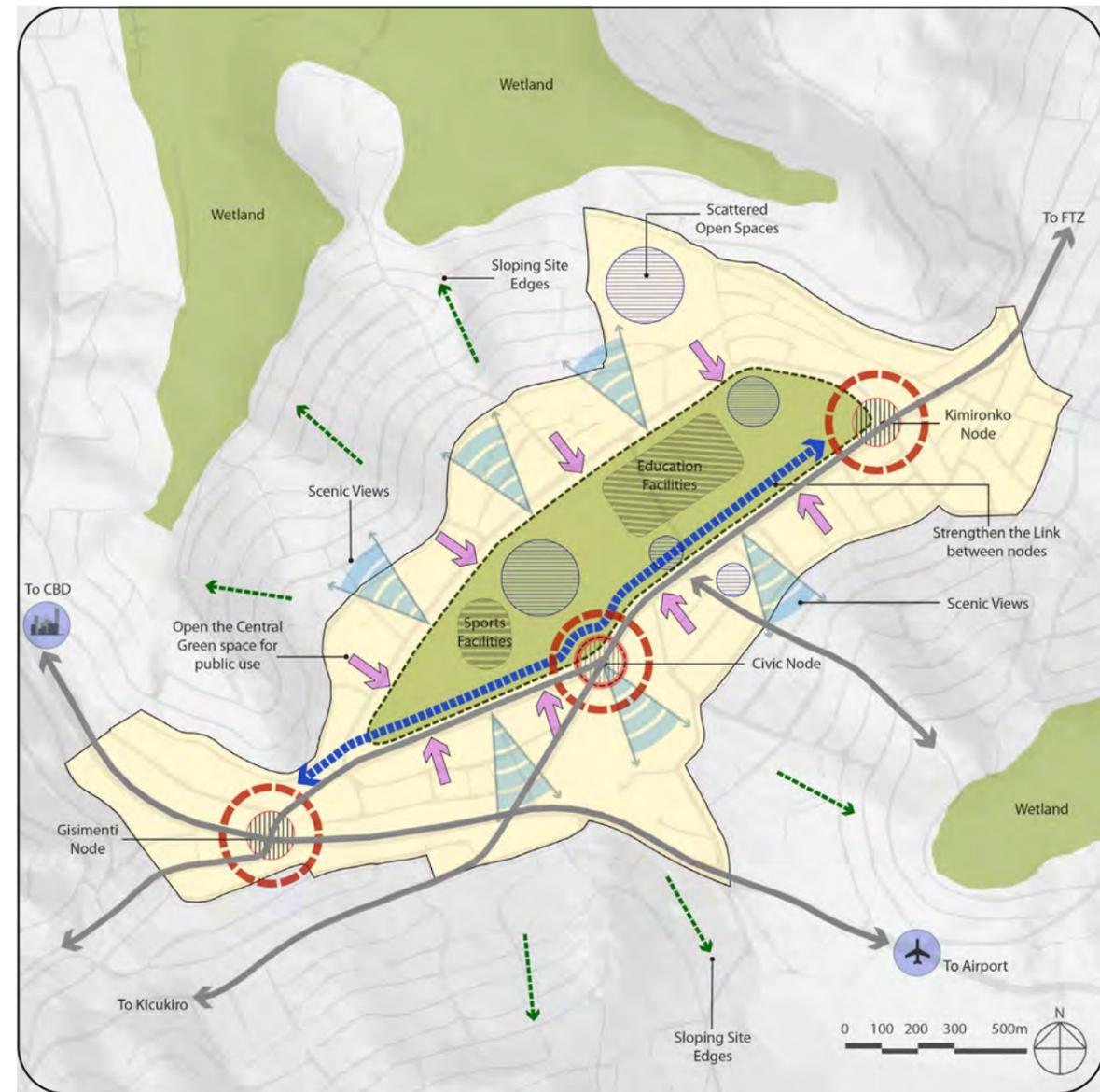
Opportunities

- The site is sitting on a flat ridge with sloping sides, which gives it a unique setting with scenic views.
- Proximity to the environmentally sensitive wetlands in the valleys improves the regional significance of the site.
- The site already houses two developing nodes of Gisimenti and Kimironko that can be leveraged.
- The site falls along the road running from the International Airport to the CBD, giving the opportunity to develop a city gateway.
- There is great potential to open up and redevelop the central plateau that is currently fenced up in most places and not available for public use.
- There is potential to develop 3 distinct nodes taking advantage of the already developing two nodes at Gisimenti and Kimironko.
- The currently fragmented open spaces can be redesigned to create a well established open space network with pedestrian and bicycle access, which connects back to the larger green network of wetlands.

- The scattered commercial development within the site can be streamlined to be concentrated along the major roads in order to develop an activity spine.
- The current roads and parking facilities do not even satisfy the current demand. Therefore, there is an opportunity to rationalize the roads to cater to the future traffic demand and designate strategic sites to cater to the parking demand.
- The land within this site is largely government owned, which reduces the conflicts of land ownership.
- The central sports and education facilities offer a great opportunity to tap their development potential and redevelop them as the central activity hub of the area.
- The topography is generally flat in the central part of the site, and sloping at the edges that offer excellent views.
- The design can be further enhanced by creating unique identities with distinct precinct designs.



How will the plan work towards upgrading slums and address affordable housing issues?



Opportunities

3 VISION AND GOALS

The Lively Education and Entertainment Destination of Kigali.



The First Choice Destination for Exciting Street Fronts in Kigali.

The New Marker of Activity Nodes of Kigali.



The Epitome of Sustainable Compact Design.

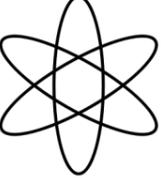
The vibrant EDU.TAINMENT HUB of Kigali

The EDU.TAINMENT HUB is envisioned to be the leading Education and Entertainment destination of Kigali. It will offer a variety of activities for people of all age groups. It will be the first choice destination for visiting the most active street fronts in the city and will attract both the community and visitors for entertainment, food and shopping. The design will demonstrate several marker activity nodes that will become the focus points of the activities within the area. To reinforce this further, it will also demonstrate and become a symbol of sustainable compact development that will strive to achieve the Quality of Life Essentials.



Image Source: Google Images

Quality of Life Essentials

<h2>Definitions</h2>	<h3>Safety</h3>  <p>Sense of physical and emotional security for individual as well as the family.</p>	<h3>Health</h3>  <p>Physical and mental wellbeing of the residents and visitors.</p>	<h3>Education</h3>  <p>A chance to receive high quality education for all incomes, abilities and ages.</p>	<h3>Prosperity</h3>  <p>An opportunity to develop a fulfilling career that allows growth, self-sufficiency and wealth generation.</p>	<h3>Community</h3>  <p>Natural sense of belonging to the community, sharing common interests and working collectively to achieve universal objectives.</p>	<h3>Physical Condition</h3>  <p>The condition of the built and the natural environment.</p>
<h3>Housing</h3>  <p>Options of quality residences that will provide shelter and safety to the residents.</p>	<h3>Public Services</h3>  <p>Services provided by the government and their allies such as utilities, sanitation, infrastructure and its maintenance.</p>	<h3>Mobility</h3>  <p>Providing convenient options to access employment, housing and amenities through public and private transport.</p>	<h3>Environment</h3>  <p>The factors that affect the state of the surroundings in which people, animals or plants live.</p>	<h3>Recreation</h3>  <p>Places that give an opportunity to refresh the strength and spirits of people and encourage social interaction.</p>	<h3>Culture</h3>  <p>Activities and events that showcase the cultural composition of the place.</p>	<h3>Amenities</h3>  <p>Facilities that are within easy reach and provide for services, materials, entertainment and other daily necessities.</p>





GOAL 1

THE LIVELY EDUCATION AND ENTERTAINMENT DESTINATION OF KIGALI.

OBJECTIVES

Revamp the sports and education facilities to attract investment and position the area as the go-to education and sports destination of Kigali in the next 15 years.



STRATEGIES

- Create an integrated community with a sense of place and seamless connectivity with the EDU.TAINMENT HUB at the core.
- Revamp the 46 Ha of Sports and Education zone to form the heart of the development to be used as a public space.
- Create a seamless pedestrian and open space network to integrate the entire development.
- Propose infill development to support the program and utilize the full potential of the vacant lots.
- Open up the EDU.TAINMENT HUB to public use wherever possible to be used as a regional recreation space.
- Incorporate the heritage and existing buildings such as the Hero's Park and the Kigali Institute of Education as an integral part of the pedestrian network.

GOAL 2

THE NEW MARKER OF ACTIVITY NODES OF KIGALI.

OBJECTIVES

Attract regional and international investment and develop 3 key nodes in order to develop attractive and lively destinations in the next 15 years.



STRATEGIES:

- Develop 3 key nodes with unique place making characteristics, namely, Gisimenti Gateway (10.45 ha), Central Civic Node (8.2 ha), and Kimironko Market (6.7 ha).
- Preserve and enhance the character of the 3 development nodes by taking advantage of the existing functions.
- Densify development within a 5 minute walking distance (500m) from the MRT stations around the nodes
- Create opportunities for development of iconic buildings to mark the nodes.
- Create a multi-purpose development at the Civic node to cater to local and international events.
- Renovate and redevelop heritage buildings to tourist destinations.

Image Source: Google Images



GOAL 3

THE FIRST CHOICE DESTINATION FOR EXCITING STREET FRONTS IN KIGALI.

OBJECTIVES

To be the main venue for street front retail and food outlets as well as a hangout destination in Kigali within 5 - 10 years period.



STRATEGIES

- Strengthen the 2.2 Km corridor linking the 3 nodes as the primary activity zone with commercial and mixed use development.
- Transform the quality, safety, and security of the walking environment by introducing activity, improved lighting and street furniture so that walking becomes the most enjoyable and convenient way of getting around the development.
- Induce mixed activities interacting with the street to create vibrancy.
- Provide attractive public squares, lookout points, and parks by capitalizing on the hilly terrain.
- Design attractive city squares and open pedestrian plazas to cater to outdoor public activities.
- Create a sense of place by establishing a continuous building edge to define the street.

GOAL 4

THE EPITOME OF SUSTAINABLE COMPACT DESIGN.

OBJECTIVES

To demonstrate the methodology of reducing the carbon footprint of a community through urban design strategies.



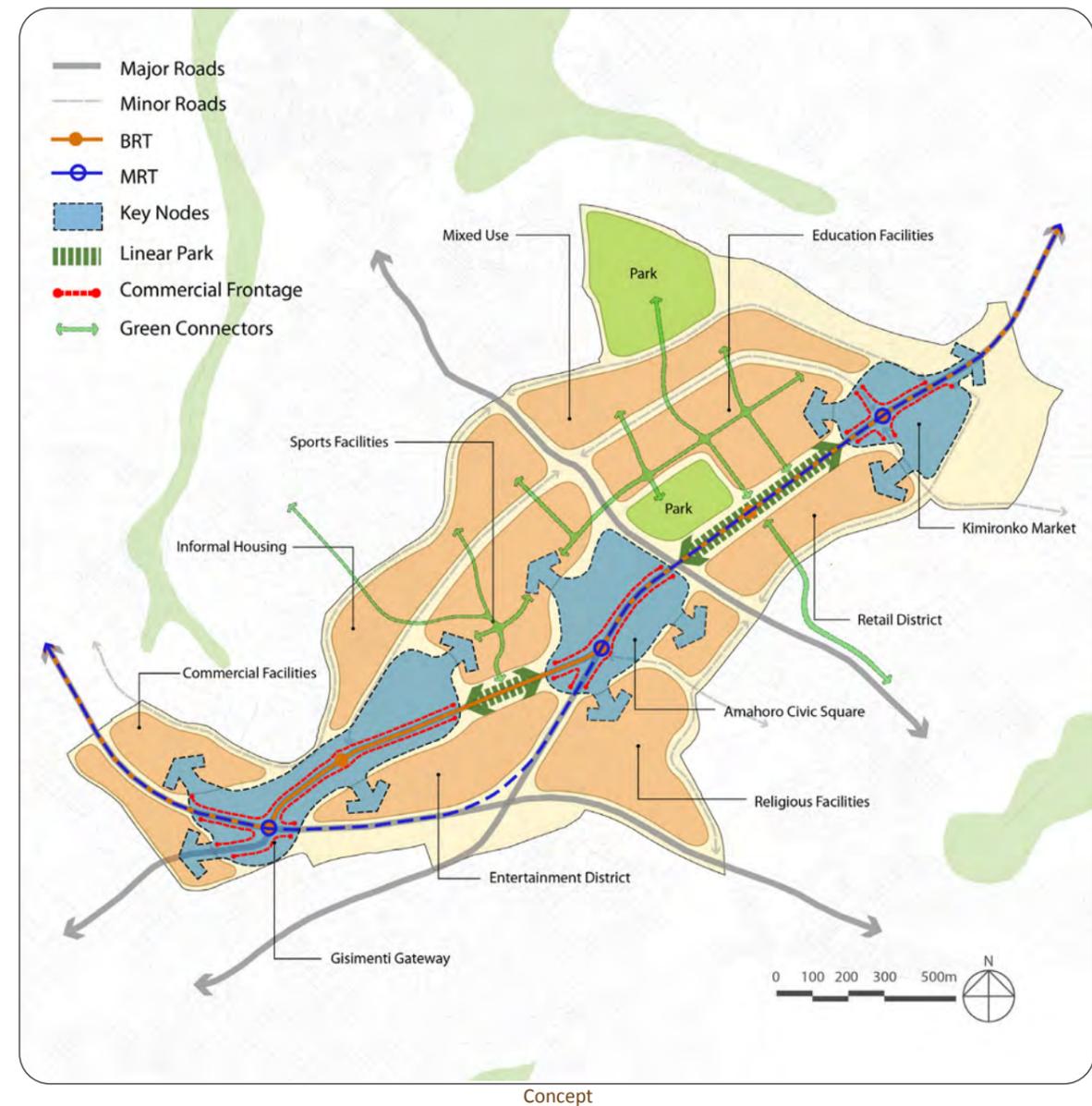
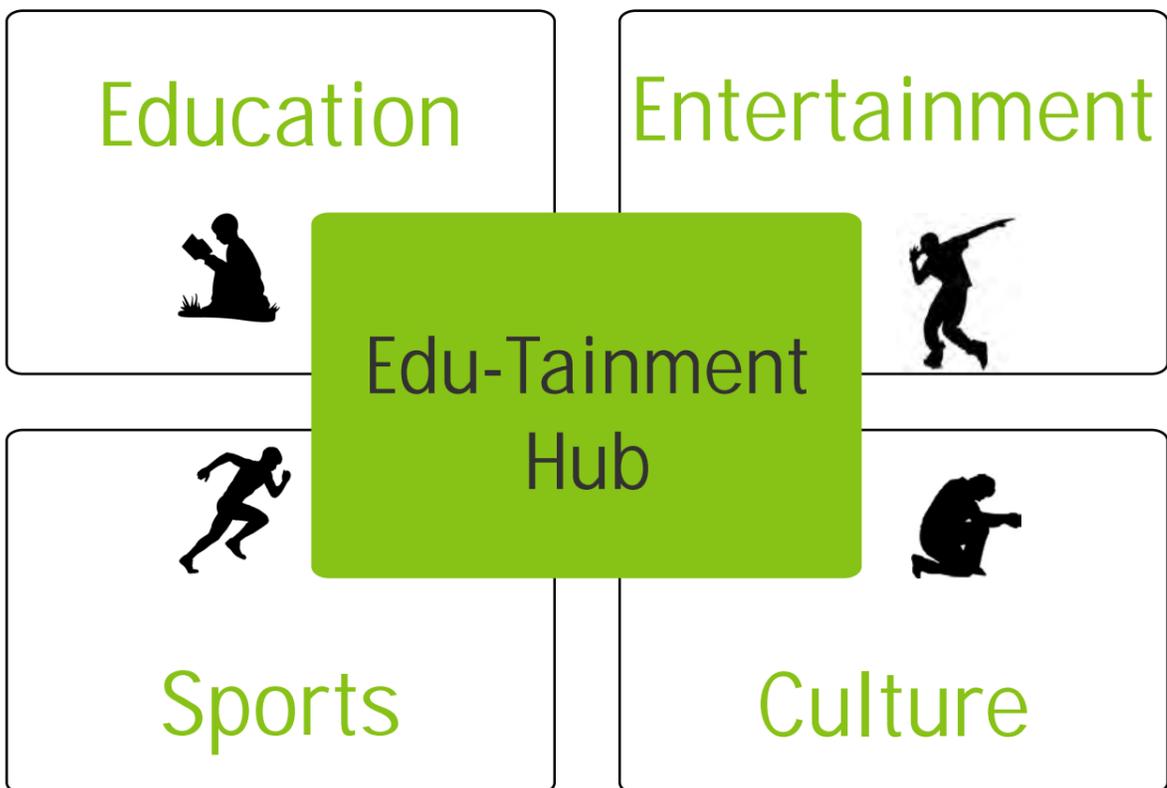
STRATEGIES

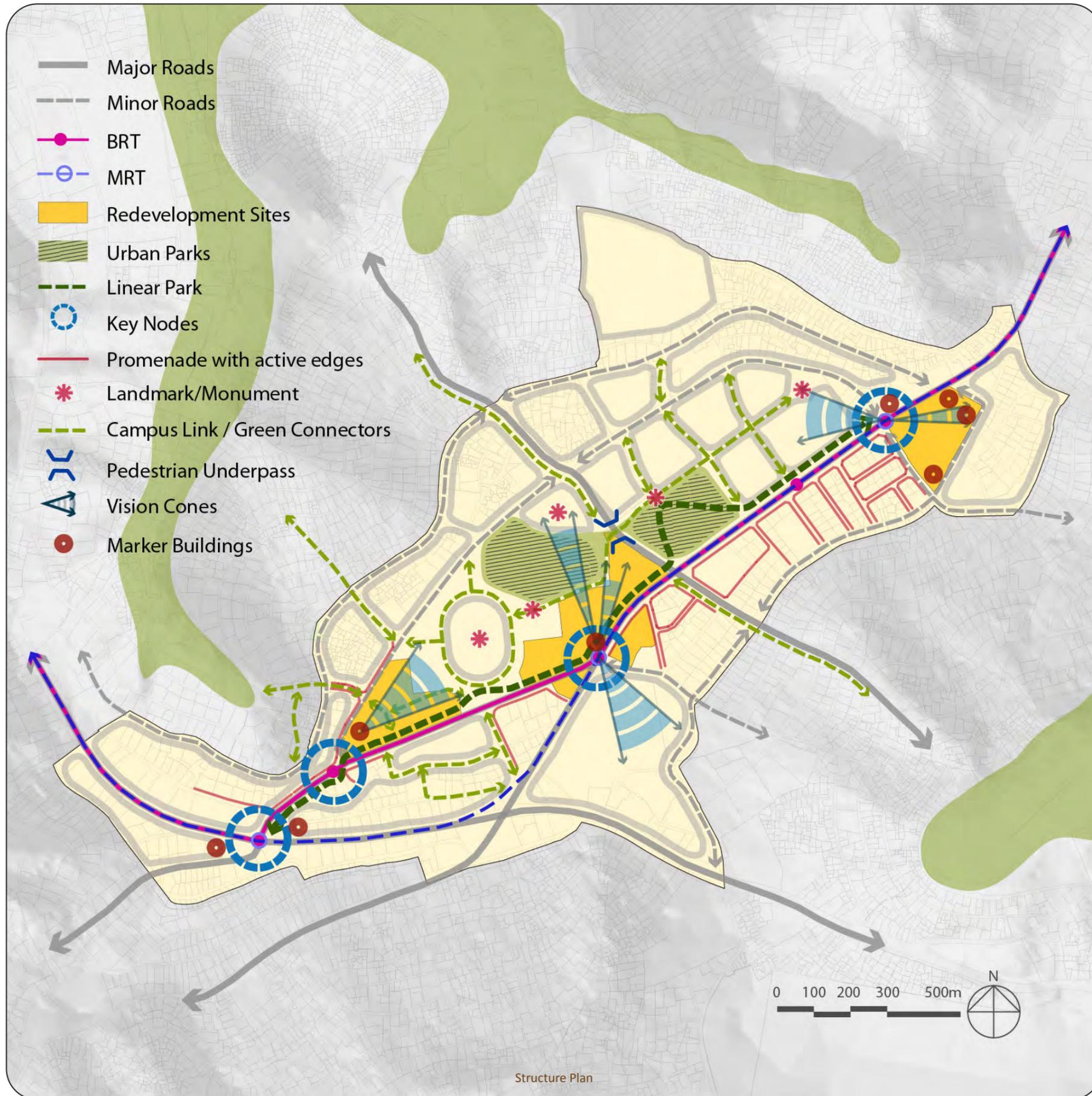
- Create a compact city making efficient use of state of art infrastructure.
- Retain buildings with historical importance and buildings that are in good condition.
- Rationalize the road network to cater to future demand and ensure smooth traffic flow.
- Design state of art public transport system to discourage use of private vehicles.
- Propose strategic locations for public car parking to solve the current parking crisis and cater to future demand.
- Redevelop areas that are currently not conforming to zoning regulations to achieve the necessary density and development pattern.

4 URBAN DESIGN FRAMEWORK

Concept

Building on the Vision and Objectives for the project, the over arching concept is to develop a Education and Entertainment Hub i.e. "THE EDU.TAINMENT HUB", with the Sports Center and the Kigali Institute of Education as the focus areas that will act as the central green public space for the development surrounding it.





Structuring Elements

State of Art Public Transport

Rationalized Road Transport

Key Nodes as Catalysts

Rejuvenated Open Spaces

Regenerated Precincts

Safe and Enjoyable Walking Experience

Managed Car Parking

Quality Streetscape

State of Art Public Transport

The BRT & future MRT will link the key development nodes and also establish connections with the CBD. The BRT is proposed in the short term, which will eventually upgrade to the MRT in the long term.

Rationalized Road Transport

The current road network will be rationalized by widening and realignment wherever necessary to allow it to cater to the future traffic demand. The realignment will ensure improved capacity as well as improved geometry to allow smooth flow of traffic. A clear hierarchy of roads is proposed to distribute the traffic effectively.

Key Nodes as Catalysts

The Gisimenti and the Kimironko nodes that are already fast growing will be further developed by enhancing their character as the Gateway Node and Market Node respectively. These will also act as the termination nodes for the Entertainment Corridor.

Rejuvenated Open Spaces

The currently disconnected open spaces shall be integrated and opened up for public use to form a continuous and well distributed network. This network will further go on and connect to the wetlands through green connectors.

Regenerated Precincts

The existing precincts of development will be rejuvenated to enhance their unique characters giving due importance to the existing development and preserving the heritage and good quality buildings.

Safe and Enjoyable Walking

Safety is a major factor in contributing to the comfort of people using the pedestrian linkages. The major BRT corridor linking the Gisimenti and Kimironko nodes will have a Green Pedestrian spine that will be facing the Entertainment Corridor. Following this primary spine, the secondary and tertiary level pedestrian connections will penetrate and reach most parts of the development to form a continuous network.

New Civic Node

A new key node of development will be introduced at the point where the sports and the education centres meet so as to integrate these two developments with the central green spaces. This will conform to Transit Oriented Development with the MRT station located along the road.

Managed Car Parking

The public parking spaces are located at strategic points in order to effectively distribute the vehicular traffic. The three major public parking facilities will be located at or near the three development nodes. As the nodes are close to the MRT stations, this will also encourage the park and ride strategy and promote use of public transport.

Street edge and Streetscape

A clear and continuous building edge will characterize the major road forming the Entertainment Corridor. The building edge will offer continuous arcades or covered all weather walkways to allow active use throughout the year. The street edge will be softened by use of natural elements such as street trees.

Proposed Land Use

Objectives

The proposed Land Use strengthens the concept of the Urban Design area as an EDU.TAINMENT HUB. It builds upon the Zoning Regulations by modifying them wherever necessary to develop and enhance the concept.

Highlights

The Central Green space, which is the heart of the development, comprises of the Sports and Recreation and the Education Institution and occupies the maximum proportion of the land at about 20 percent, which equals about 41 hectares. This space will essentially be used as a public space to form the anchor for the entire development. The education institutions such as the primary school and the KIE have densified to utilize the land potential.

A dedicated neighborhood park measuring about 8 ha has been introduced within the Central Green to serve the community.

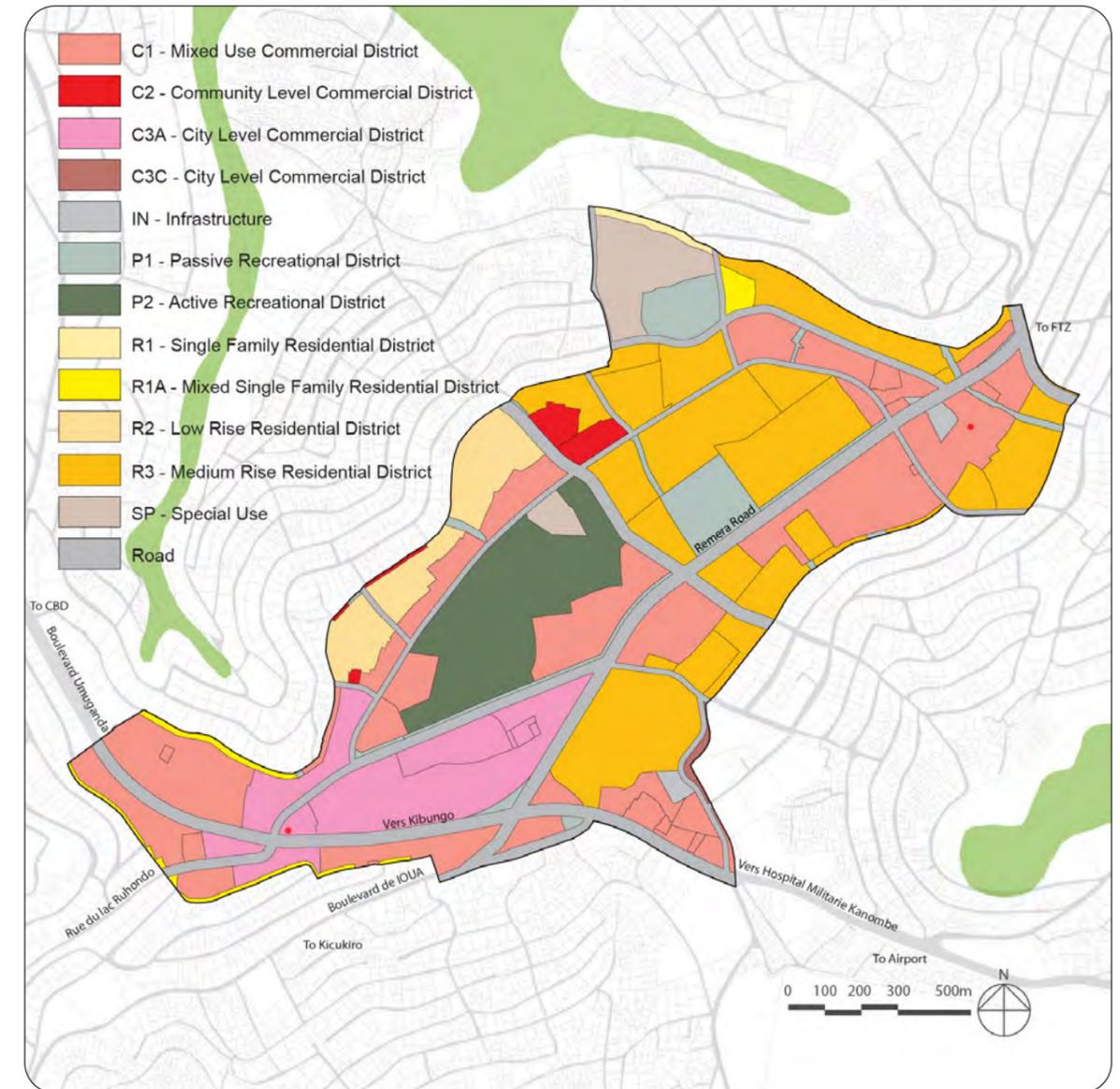
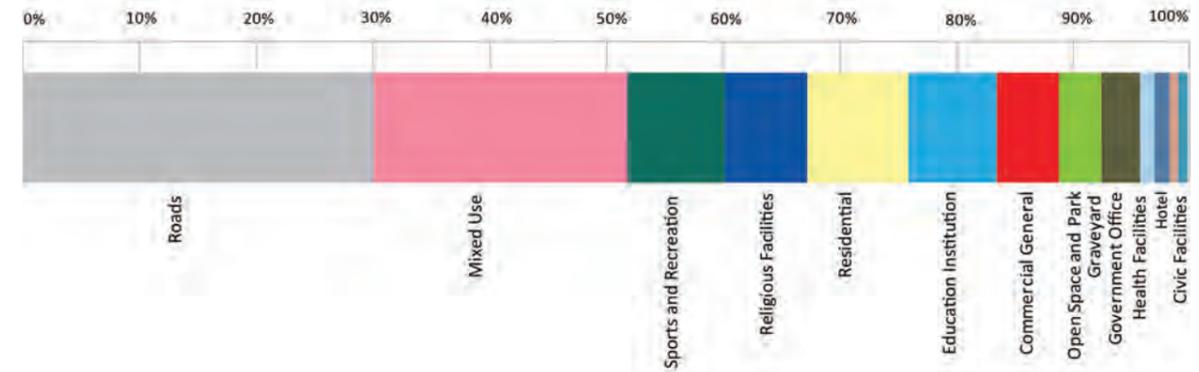
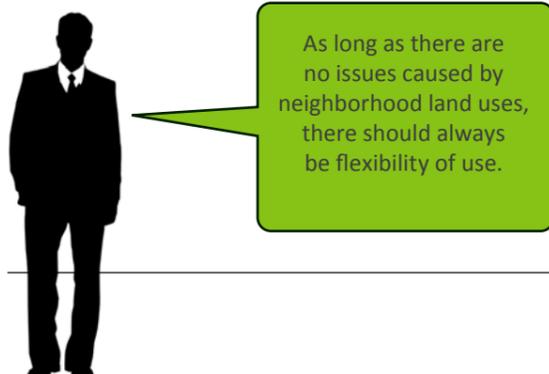
The Mixed-Use development is concentrated along the Remera Road between the Kimironko and the Gisimenti nodes on one side of the road. The street edge along this road will have an active edge on one side with activities such as retail and restaurants, and a passive edge of the other side of the road along the

central green. Mixed Use offers maximum flexibility in terms of usability by accommodating a variety of uses that can alter according to the market demand.

Most of the Commercial uses are concentrated near the Amahoro Civic Square and the Kimironko Market to take advantage of the transit nodes. Purely residential development occupies the periphery of the Urban Design area where the land starts sloping down to the wetlands in the valleys and accounts for about 10 percent of the development.

All the religious uses have been preserved and integrated with the proposed design.

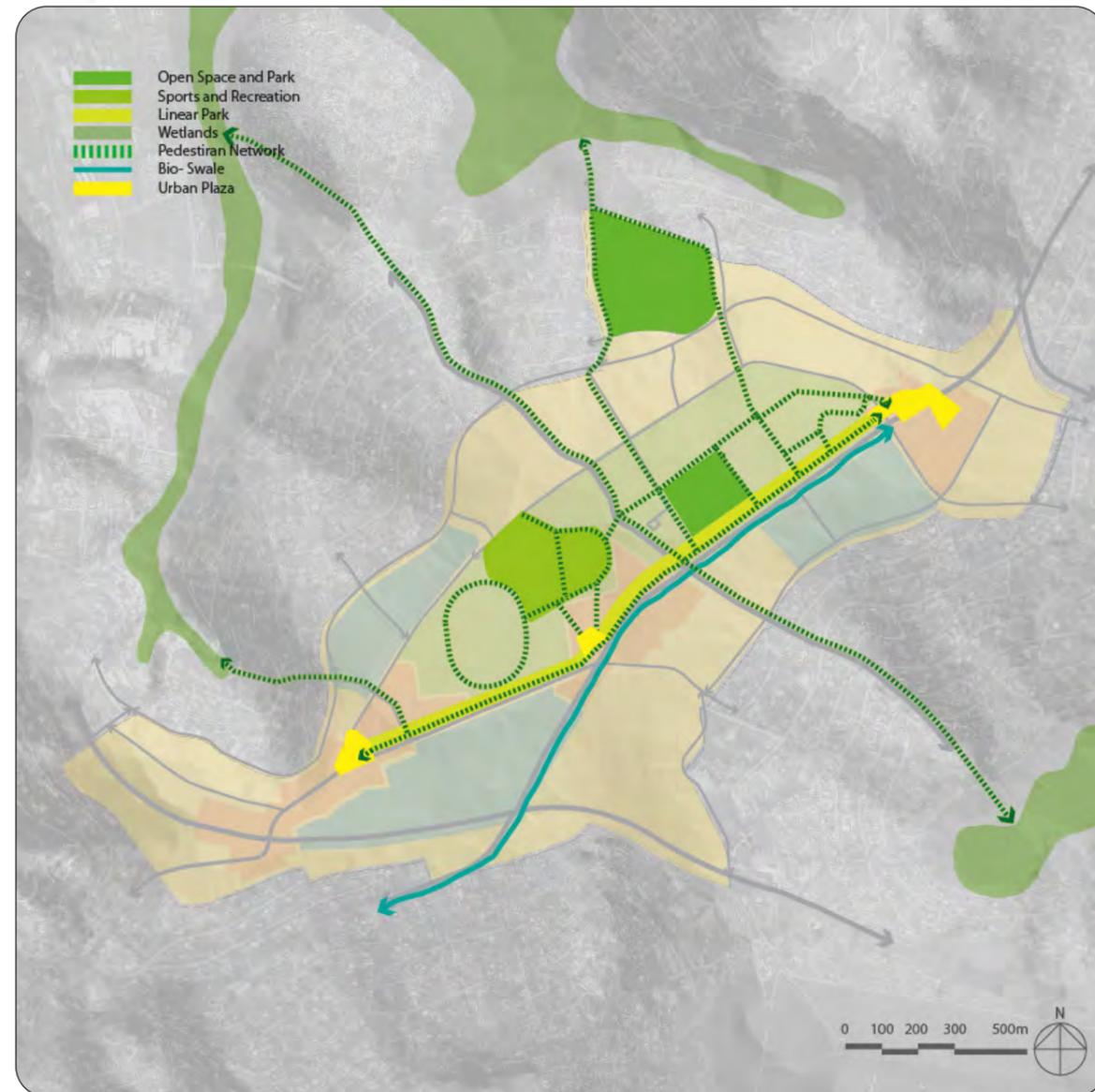
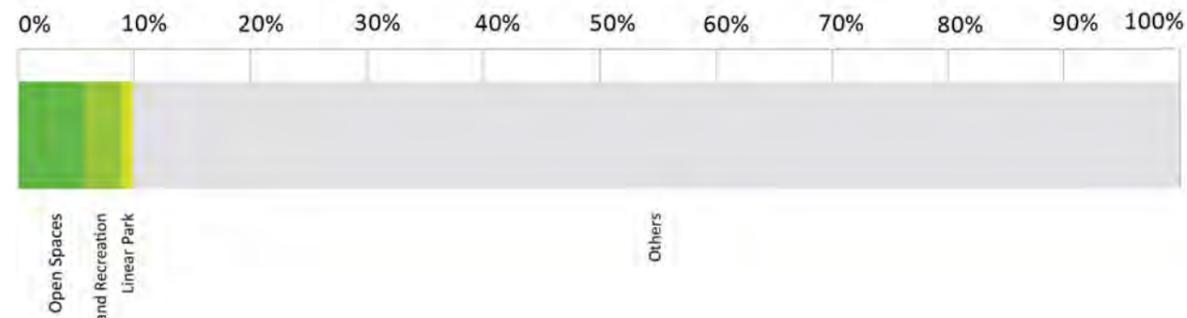
After widening and rationalizing the roads, the transportation network occupies about 30 percent of the site area including local roads and the MRT corridor.



Proposed Land Use Plan

1. Hotel Chez Lando
2. Sub-zero level plaza
3. Covered Walkway
4. Multistorey Public Parking
5. Public Plaza
6. Commercial redevelopment of UNAIR
7. Entertainment Precinct
8. Multipurpose Hall
9. Hotel
10. Stadium surface parking
11. Amahoro Stadium
12. Indoor Stadium
13. Amahoro Civic Square
14. Soccer Fields/Multipurpose Open Space
15. Hotel
16. Pedestrian Subway Connection
17. Football Federation
18. Heroes Park
19. Mixed Use Development
20. Informal Housing
21. Sports View Hotel
22. Witness Center
23. Church
24. Residential Development
25. Primary School
26. Police Owned Development
27. Park
28. Kigali Institute of Education
29. Mixed Use Development
30. Remera Cemetery
31. Mixed Use Development
32. Commercial Development
33. Hotel + Mixed Use Development
34. Kimironko Market + Bus Interchange
35. Retail District
36. Church
37. MRT+ BRT Interchange
38. Linear Park





Green Strategy

Green Strategy

In order to create a more livable and well-connected development, it is necessary to improve and expand on the fragmented open space network and walking routes. This is an important part of the overall design strategy and will help provide clear, safe and attractive routes between transport nodes and destinations. The proposal demonstrates a wide network of open spaces connected by walkways to create a pleasant pedestrian experience.

By designing high quality pedestrian routes integrated with open spaces, parks and squares, the Urban Design area will achieve a safe and welcoming environment, improve the experience of visitors and also reduce carbon emissions by reducing the Vehicle Miles travelled.

Open Spaces
12.1 Ha

Sports and Recreation
6.9 Ha

Linear Park
2.1 Ha

Objectives

- Conserving natural green as much as possible so as to create a large central green core and green connectors.
- Creating public greens amidst the developments.
- Creating a seamless network of green and open spaces integrated with recreational and communal amenities.
- Creating a range of large active and passive attractions marking Kimironko as an entertainment destination.
- Connecting the green network to the wetlands in the valleys.
- Utilizing the natural contours to create water features such as swales and retention ponds.

Highlights

- The primary Green and Blue network runs along the Remera road.
- A series of large communal green parks are integrated within the design, which lead on to connect to the lower hierarchy open spaces and green connectors.
- An extensive park connector network running along linear greens, water swales and pedestrian streets connect all the parks, public plazas and open spaces into an integrated green and blue network.
- The green connectors link the developments to the wetlands.
- The Central Green space has two regional parks that are connected through a public plaza at sub zero level from under the road.

Improved Connectivity

The Urban Design Area is an ideal location to be a successful well-connected development served well by road and air links. While the area benefits from a range of good transport connections, the quality of the transport environment and the connectivity requires improvement.

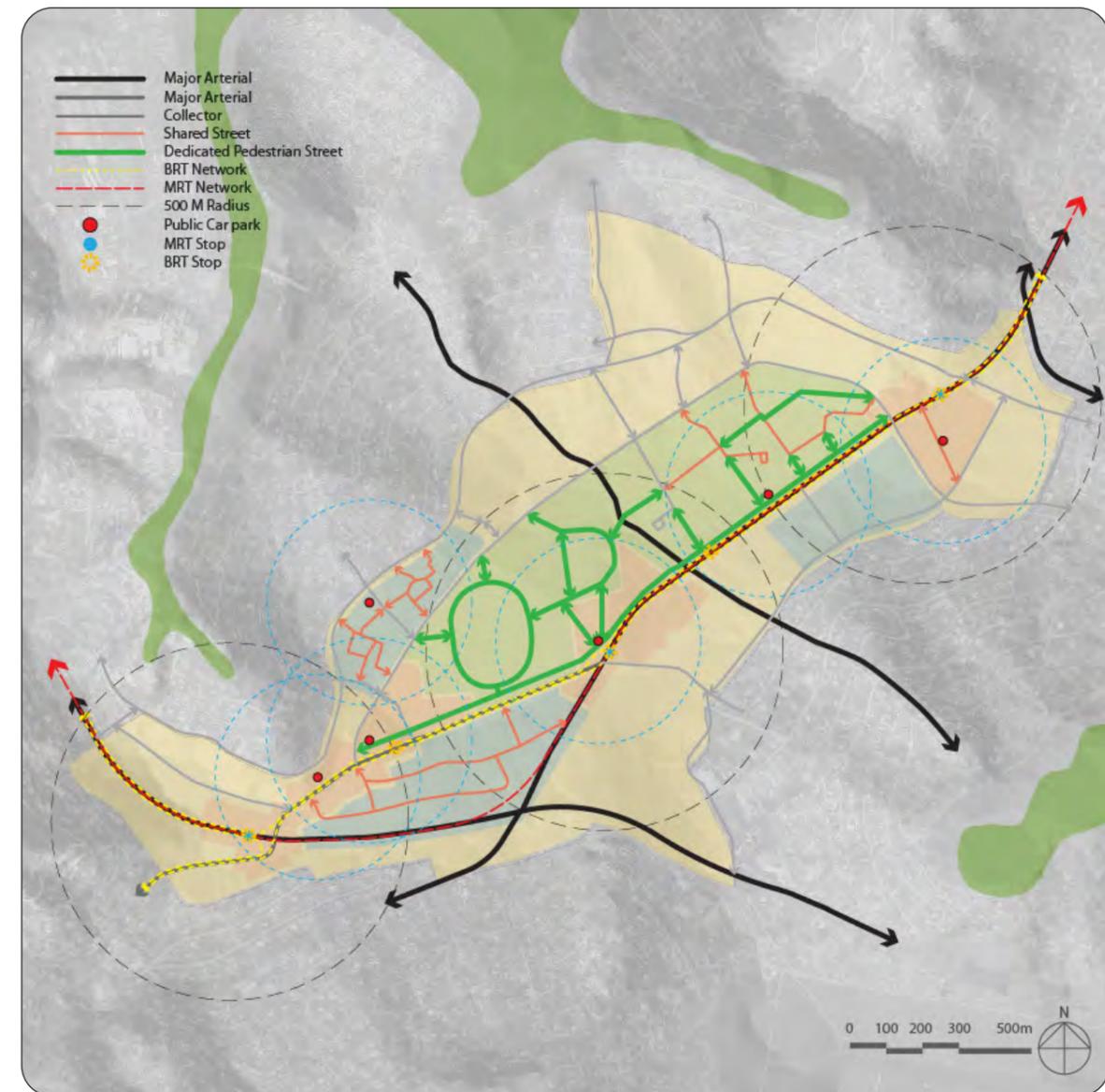
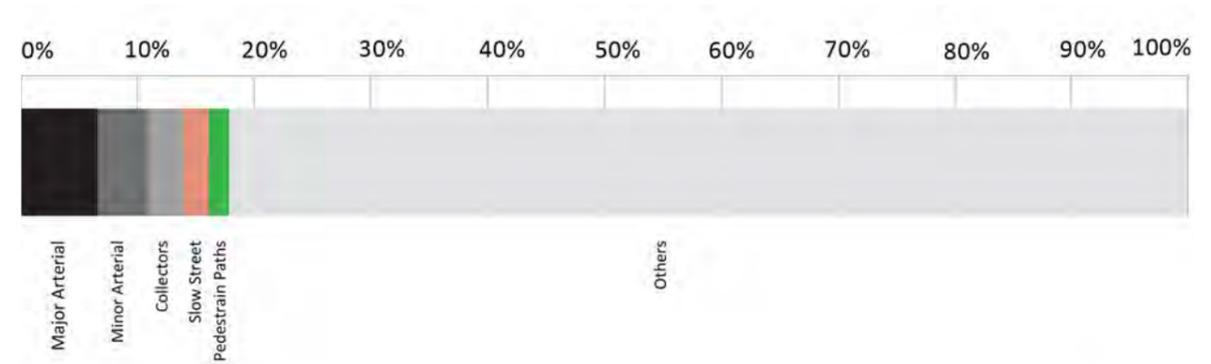
The challenge for the future is to improve the quality and the efficiency of the transport network, making the development a place that encourages people to walk, bike, and use public transport rather than using private vehicles.

Objectives

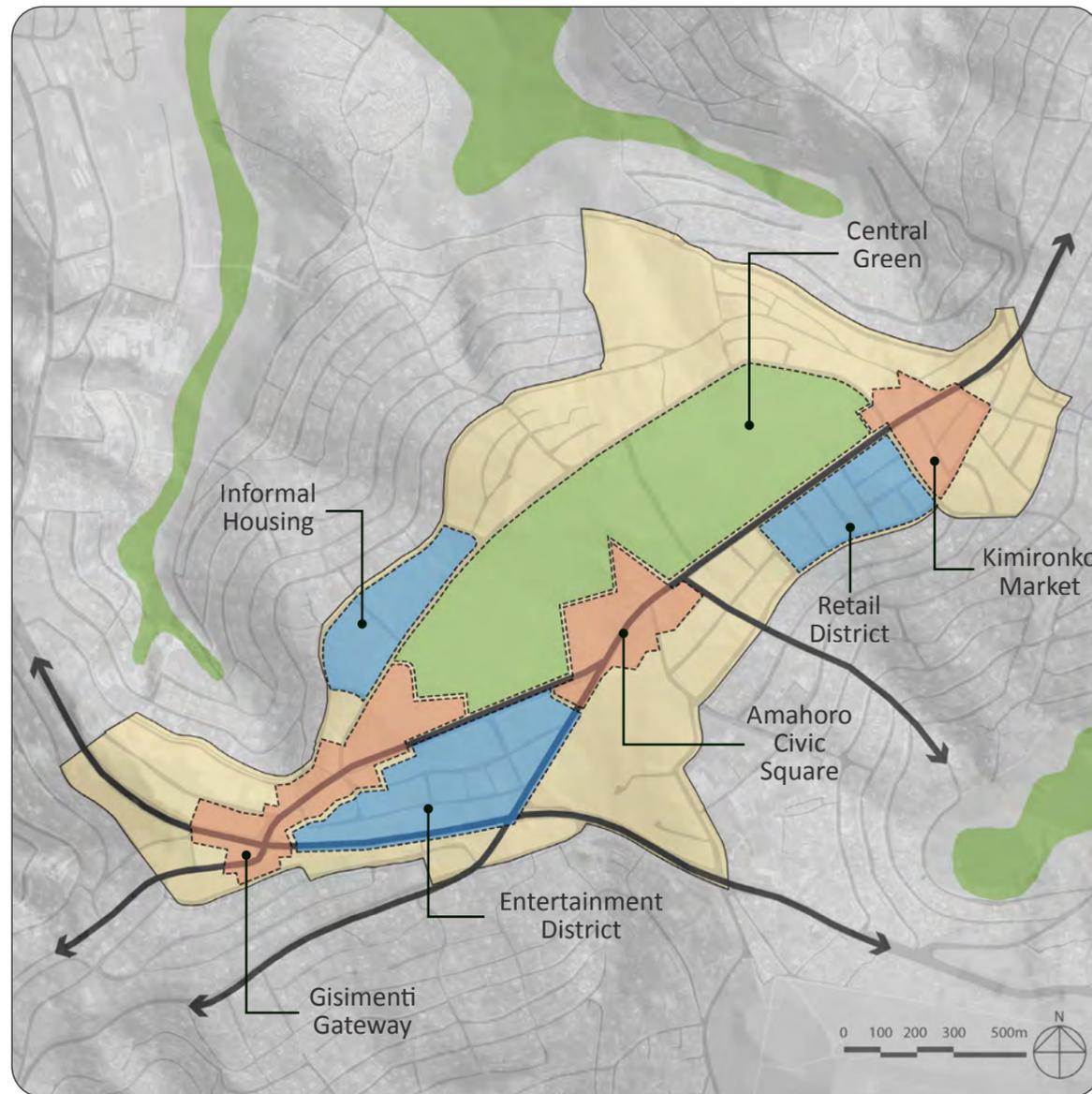
- Better integration with existing roads and developments.
- Efficient and safe alignments and intersections.
- Separation of traffic emissions away from residential zones.
- Offer continuation of the existing roads linking to the new development sites.
- Facilitate provision of pedestrian and bicycle amenities.
- Encourage alternative transport options.
- Reduce car / pedestrian conflicts.
- Offer seamless pedestrian connectivity between the existing and new developments.
- Ensure safe and easy pedestrian access to key activity areas.
- Ensure permeability in the organization of the building blocks and estates so as to ensure an active, walk able and compact urban environment.
- Provide safer routes to education facilities.

Highlights

- Clear hierarchy of roads has been established to distribute traffic effectively.
- Seamless transition between multi modal transport has been achieved.
- Car Park footprint has been minimized by locating them strategically.
- Continuous network of pedestrian streets, plazas and green connectors bind the new and existing development together.
- Roads have been realigned and widened wherever necessary and feasible, and junctions have been rationalized to cater to future demand and ensure smooth traffic flow.
- A dedicated BRT line has been proposed to connect the three nodes and further down to the CBD.
- An Mass Rapid Transit corridor has been reserved for future development when the population catchment is reached.



Connectivity Network



Precincts

Distinct Precincts

The Urban Design area showcases unique characteristics in different parts. These characteristics can be enhanced and developed further through the urban design solution to give these places a unique identity. The area has been perceived as a conglomeration of 7 precincts, so that each precinct be developed to capitalize on its strengths.

Key Precincts

CENTRAL GREEN

This precinct occupies the core of the urban design area and houses the sports and education facilities as the primary functions

GISIMENTI GATEWAY

This precinct forms the gateway to the development as it is the first node one visits while travelling from the international airport to the CBD, or vice versa. This node will primarily house commercial activities.

AMAHORO CIVIC SQUARE

This node acts as the anchor development for the entire urban design area where all the pedestrian connectors converge. Located at the confluence of the sports and education facilities within the Central Green area, it will function primarily as a Cultural and Recreational Centre.

KIMIRONKO MARKET

This node capitalizes on the presence of the Kimironko Market and functions as a mixed use market precinct. It also integrates the existing bus terminal in the new development, and taps back to the larger pedestrian network.

Other Precincts

INFORMAL HOUSING

This precinct builds upon the informal character of the existing development and transforms it in to a more vibrant residential neighborhood.

RETAIL DISTRICT

This development will showcase a character of a closely knit human scale development with an active retail edge on the ground level.

ENTERTAINMENT DISTRICT

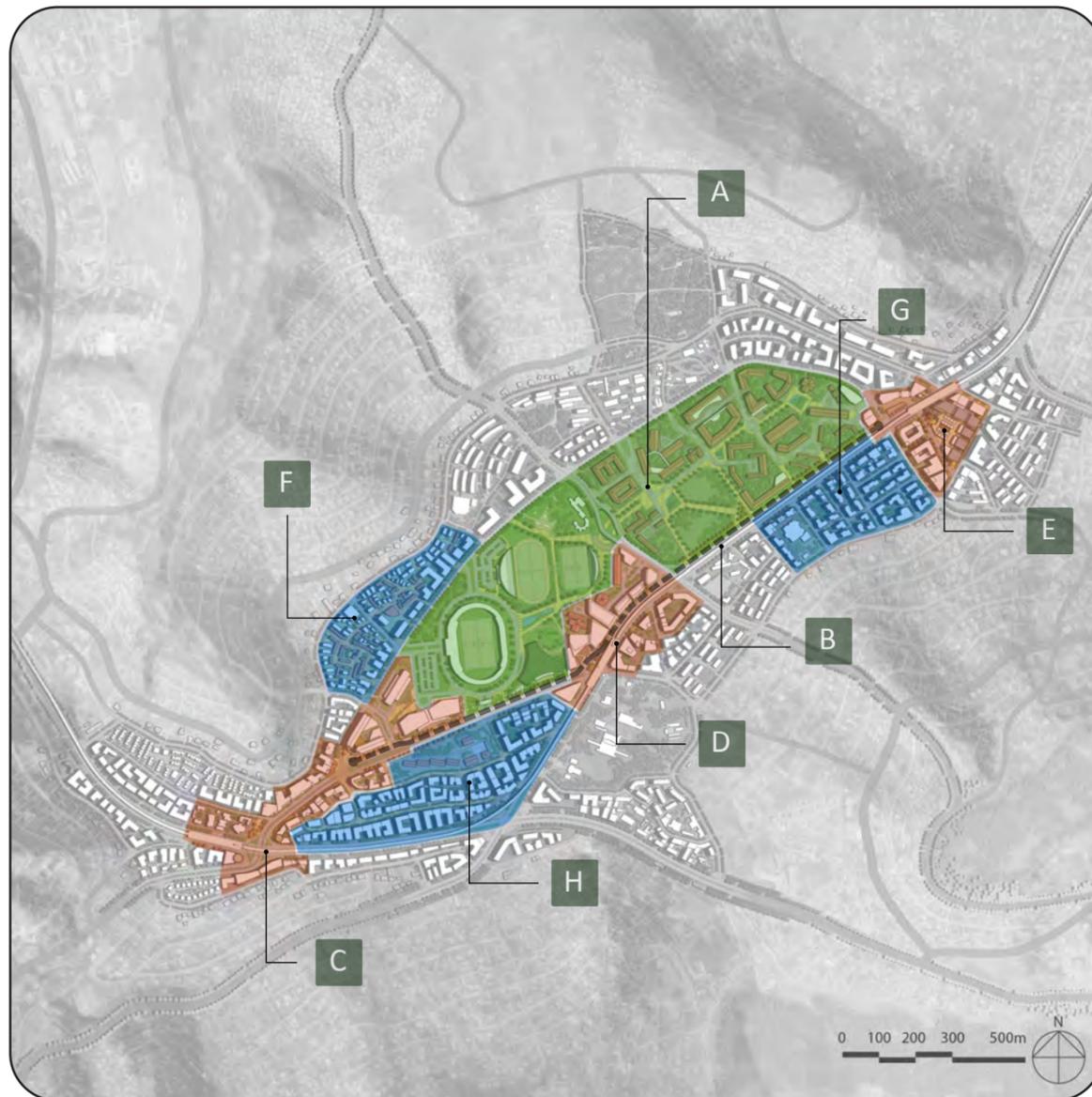
This precinct will consolidate all the entertainment activities such as discothèques, restaurants and low cost hotels in to a single neighborhood to create an entertainment destination.



The Edu. Tainment Hub

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5 KEY TRANSFORMATIVE MOVES



Key Nodes

The Moves

The Urban Design area has been detailed out at three levels- Big Moves, Key Nodes and Support Precincts.

The **Big Moves** are developed with the purpose of tying together all the different areas of the site. The Central Green forms the core central part of the development and the Linear Park acts as a tying element to hold the different parts together.

The **Key Nodes** help in identifying the land parcels with the highest potential for development and demonstrate a design solution to extract that potential. Three nodes have been identified and detailed out for the same purpose.

The **Support Precincts** have each been conceptualized to give them a special character that fits well within the mesh of the entire development. The design of these precincts takes in to consideration the existing built form and uses, as well as the future setting that is part of the overall concept.

- A** Central Green
- B** Linear Park
- C** Gisimenti Gateway
- D** Amahoro Civic Square
- E** Kimironko Market
- F** Informal Housing
- G** Retail District
- H** Entertainment District

Big Moves

Key Nodes

Support Precincts

A

Central Green



Features of the Central Green

1. Amahoro Stadium
2. Surface Parking
3. Soccer Fields/Multipurpose Open Spaces
4. Heroes Park
5. Football Federation
6. Amphitheater
7. Pedestrian Underpass
8. Multipurpose Halls
9. Indoor Stadium
10. Park
11. Direction Marker Sculpture
12. Open Reception Space
13. Primary School
14. Redeveloped Police Quarters
15. Neighborhood Park
16. Kigali Institute of Education
17. Vehicular Access
18. Church
19. Commercial Development
20. Linear Park

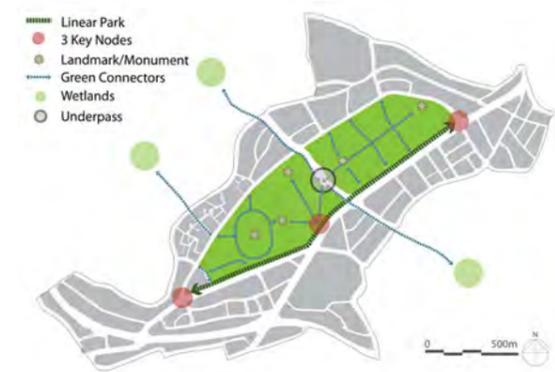
4Km Pedestrian and Bike Trails



Sports and Recreation



KIE and Park



Concept

The intention behind designing a strategy to develop the Central Green is to tap on the under utilized potential of the community open space. Currently, the available open spaces adjacent to the KIE and the Amahoro stadium are fenced off and not accessible to the public. Being located in the central core of the Urban Design area covering a considerable area of about 46 Ha, opening up these spaces for public access will help in activating the spaces to their fullest potential and will also fulfill the need of a neighborhood open space.

Strategies

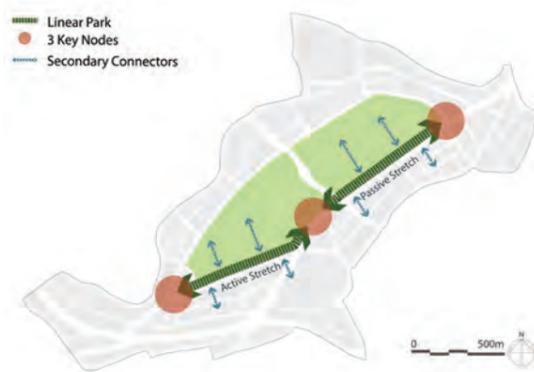
The 4km pedestrian and bike network throughout the Central Green runs along a raised 2m berm that helps in defining and structuring the open spaces by forming enclosures.

A sub-zero level pedestrian connection with an amphitheater setting ensures a seamless 1.5km pedestrian and bicyclists connection through the open spaces across the realigned Intwari road.

The vehicular access has been restricted along the northern edge of the site to prevent commotion along the major arterial Remera Road.

The Central Green taps on the linear park along the southern edge of the site at approximately every 200m allowing the park to flow in to the central open spaces. The connections have been designed to converge to the plaza at the Amahoro Civic Square.

The privacy of the good quality important buildings such as the polyclinics, the Football Federation building, the Heroes Cemetery and the church have been retained and integrated within the proposal.



Concept

The 2km long Linear Park is conceived as an element to bind the 3 key nodes of development together. It acts as the primary pedestrian and bike connector for the development. The secondary green connectors tap off this main spine to penetrate in to the precincts. The Linear Park is proposed as a 15 meter continuous corridor running along the northern edge of Remera road. It originates at the Gisimenti Node and terminates at the Kimironko Market linking with the Amahoro Civic Square along the way.

It has been designed in two stretches. The first stretch connects the Gisimenti Gateway to the Amahoro Civic Square, and the second stretch connects the Amahoro Civic Square to the Kimironko Market.



ACTIVE STRETCH

The first stretch has been conceptualized to complement the surrounding sports activities. This park will run as a conglomerate of several small parks to form a linear stretch. It will house activities such as roller skating, art walls, mini basket ball courts and so on within a green setting.



PASSIVE STRETCH

The second stretch is designed as a passive linear green park to complement the education activities adjacent to it. It will have pedestrian pathways passing through the greenery of trees with a swale marking the edge between the park and the road. The swale will help in arresting the water run-off from the Central Green.

2Km Linear Park



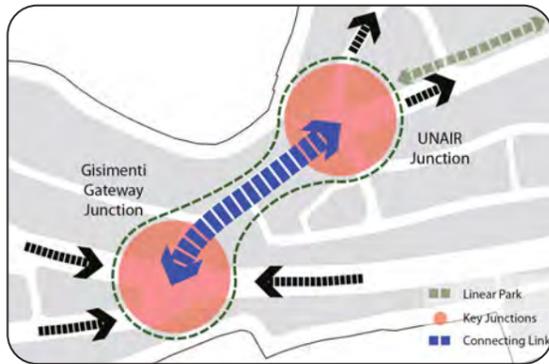


Gateway to a Vibrant Commercial Destination



C

Gisimenti Gateway



Concept

This is the first node in the approach path from the Kigali International Airport to the "Edu.Tainment Hub" and further goes on to connect to the city center. Therefore, the stretch between Gisimenti junction and the present UN building parcel deserves special treatment. The node has been primarily designed as a gateway to a vibrant commercial destination. It also forms the origination point for the gradually ascending Linear Park that connects the three key nodes. A strong sense of arrival and surprise marks the character of the node.

Place Making Strategies

- Strong sense of arrival and surprise
- Well defined active edges
- Public realm continuity

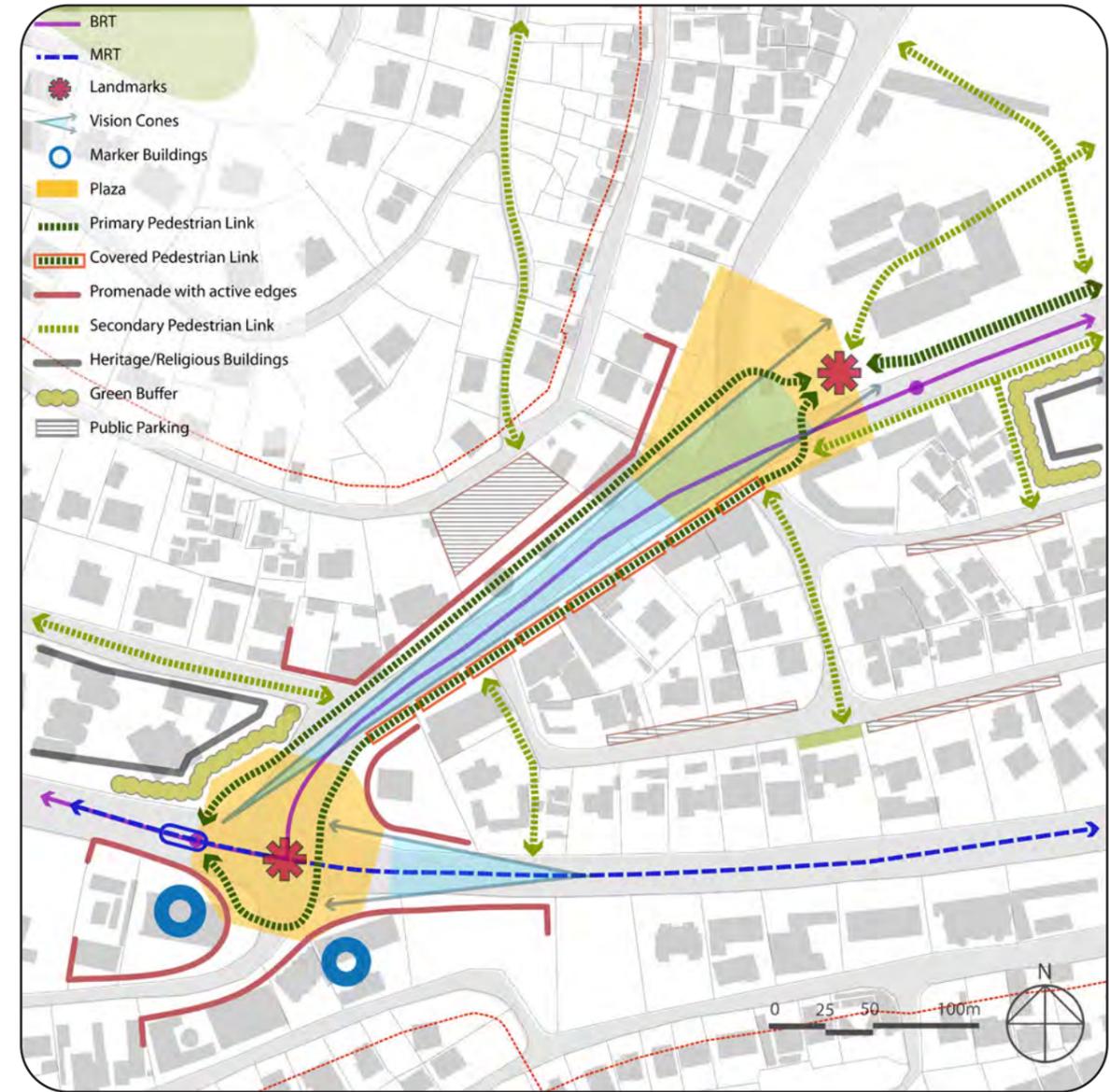


Image Source: Google Images

Commercial Strip + Public Parking

The redeveloped strip of Commercial development includes a multi-storey parking building that helps resolve the current insufficiency of public parking and frees up the ground level for public activities. The ground level forms a continuous arcade with an active commercial frontage that helps in linking the gateway node to the Remera Plaza.

Heritage Hotel Chez Lando

The Hotel Chez Lando has been preserved to respect the heritage it brings with it. To further protect the hotel from the disturbance happening due to the activities on the road, a green buffer of trees has been introduced on the side of the junction.

Redeveloped UNAIR

The current UNAIR site and the vacant parcel in the rear have been redeveloped in to commercial and hotel functions respectively. The foreground is marked by Remera Plaza that welcomes the people in to the development and also forms the origination of the Linear Park that further connects the entire development.

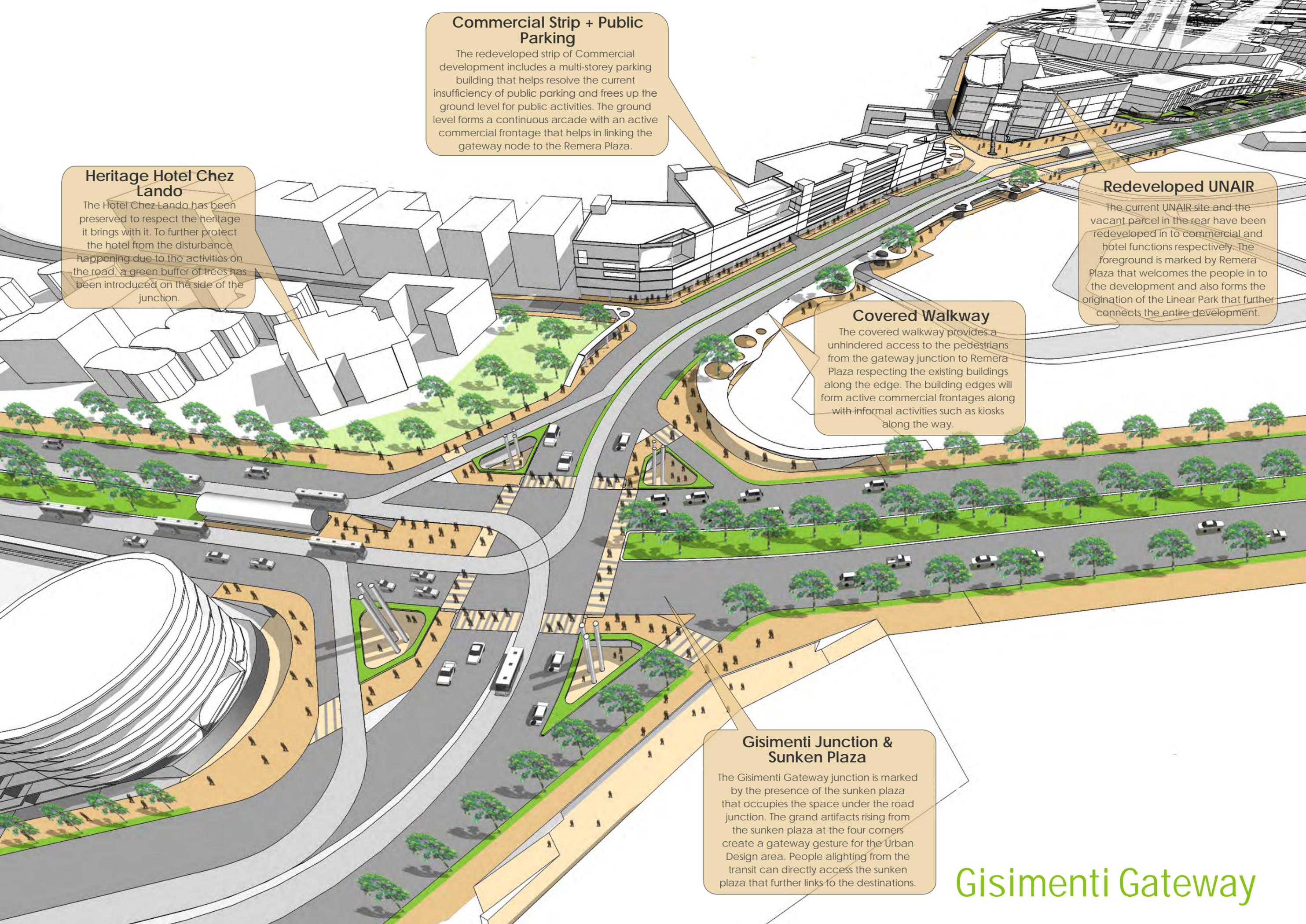
Covered Walkway

The covered walkway provides a unhindered access to the pedestrians from the gateway junction to Remera Plaza respecting the existing buildings along the edge. The building edges will form active commercial frontages along with informal activities such as kiosks along the way.

Gisimenti Junction & Sunken Plaza

The Gisimenti Gateway junction is marked by the presence of the sunken plaza that occupies the space under the road junction. The grand artifacts rising from the sunken plaza at the four corners create a gateway gesture for the Urban Design area. People alighting from the transit can directly access the sunken plaza that further links to the destinations.

Gisimenti Gateway



Urban Design Features

CIRCULATION

ACCESS

The location of the public spaces at the Gisimenti and UNAIR junction form the basis of locating the MRT and BRT stops in close vicinity and have been integrated to allow seamless pedestrian access to the Sunken and Remera plaza from the alighting points. Vehicular access to all buildings has been avoided from the arterial Remera road wherever possible as this road will carry high speed traffic.

PEDESTRIAN LINKS

An all weather walkway forms the link between the gateway sunken plaza and the Remera Plaza to allow unhindered use. The connecting stretch between the two junctions will be marked by active building edges at the ground level that will interact with the street and will house retail and F&B functions. The secondary level pedestrian connections branch out from this stretch. The northern building edge forms an arcade, whereas the southern edge is a promenade with a covered walkway.

PUBLIC PARKING

As road planning standards do not promote on street parking, the redeveloped UNAIR building(1,250 lots) and the multi-storey parking building (300 lots) as shown in the adjacent figure will provide the necessary public parking. Parking for some of the parcels' located on the opposite side of the multi-storey parking building, whose access is affected by the continuous promenade, will be reserved within the public parking garages. Proximity to public transit stations will encourage Park and Ride, where people can park their vehicles and travel by public transport. Parking has been integrated within the buildings to free up space on ground for public activities.



Gisimenti Gateway Junction with the BRT, Sunken Plaza, Grand Artifacts, Marker corner buildings and Hotel Chez Lando.



The stretch with the covered walkway demonstrating the commercial activities, car drop-off, street furniture and planting strip.

URBAN SPACE

SUNKEN PLAZA

The Gisimenti gateway junction is demarcated by a sunken public plaza. The plaza continues under the junction to form a thriving hangout destination flanked by retail and F&B outlets. Grand scale artifacts will rise through the sunken areas at the 4 diagonally opposite corners of the junction to signify the sense of arrival. The sunken plaza helps in seamlessly connecting all the four corners of the Gisimenti gateway junction for pedestrian convenience and safety.

REMERA PLAZA

The Remera Plaza, in the foreground of the redeveloped UNAIR building, marks the origin of the 15 meter wide Linear Park that continues throughout along the northern of Remera Road. The BRT and MRT stops are conveniently positioned and accessible along the broad median adjacent to the plaza. The plaza acts as a welcoming space in to the development and is the uniting element in the fragmented built form at the UNAIR "Y" junction. The paving pattern to mark the plaza continues on to the street and on to the walkways across the road to give a sense of definition to the space. Even the road curbs are subtle to create a feeling of continuity of the plaza space.

BUILT FORM

DIRECTION MARKERS

Two markers are established to create a visual anchor by following the vision cones, namely, one at the gateway junction and the second at Remera Plaza. The gateway junction in itself forms the marker with a sunken plaza and grand sculptures rising out of them. The landmark at the Remera Plaza will be a Clock Tower that terminates the vista from the gateway junction. These markers are strategically located to



The commercial redeveloped street with the multi-storey car park and arcade with commercial and retail outlets.



The commercial street along Remera road marking the origin of the Linear Park with restaurants and kiosks opening on the street.



establish visual references and help pedestrians orient themselves.

LANDMARK BUILDINGS

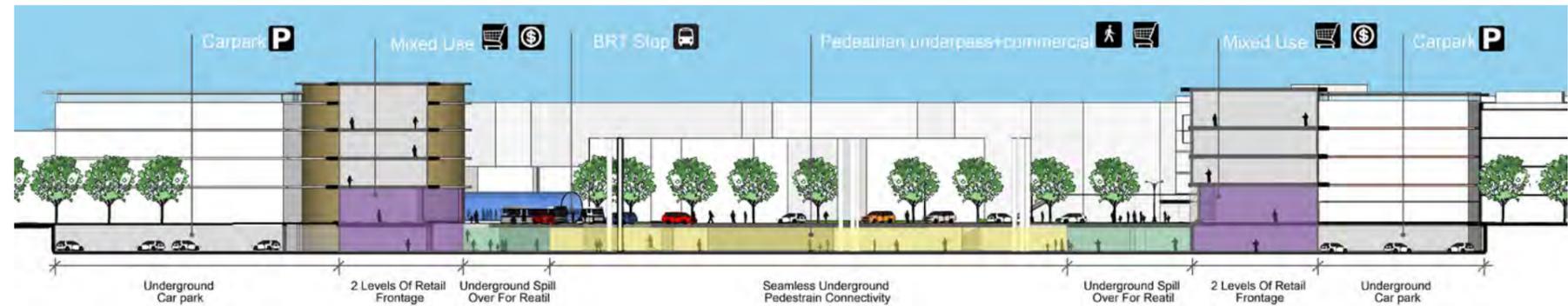
Three landmark buildings surrounding the Gisimenti gateway junction, further strengthen the identity and well defined active edges by forming a backdrop to the gateway. The buildings will house retail and food & beverages(F&B) outlets at the lowest level and office spaces on floors above. Emphasis is given to horizontality through long facades with articulated rounded corners. Another landmark development forms a backdrop to the Remera Plaza. This building maintains the continuity of the public realm by funneling in people through the building and releasing them in to the central green precinct. The funneling effect is created by splitting the facade to give a glimpse of the Amahoro stadium from a raised deck accessed through the plaza. It will house retail and F&B activities on the ground level and office spaces above.

ACTIVE EDGES

The building edges marking the sunken plaza at the Gisimenti Gateway junction and the Remera plaza, and the stretch of Remera road connecting the plazas will house activities that will engage the people walking along. These include retail uses, F&B, and utility shops. The buildings along the southern edge of the road have been retained and linked with a covered walkway to establish continuity to the fragmented building edges.

HERITAGE/RELIGIOUS BUILDINGS

Chez Lando hotel and other good buildings have been retained. A green plantation buffer is proposed along their boundaries to protect their indoor environments from the disturbance generated by the activities along the road.



PUBLIC REALM

The larger elements of the public realm such as landmarks and markers have already been discussed. However, the smaller elements such as street furniture, street lighting and signages have also been given due consideration.

All the walkways are proposed to be at grade with the carriage way. They will be segregated using materials and street furniture such as bollards, street lamps and planter strips as illustrated.

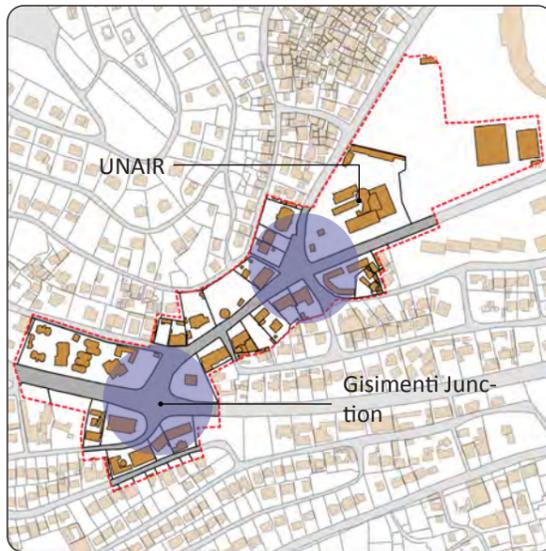
The continuity and safety in the public realm has been maintained through the sunken plaza and covered walkways thus preventing people from weather exposure and interference with vehicular traffic while commuting from the transit node to the destinations.

The Remera Plaza will house the seatings for the cafes and restaurant spilling out on to the plaza as illustrated.



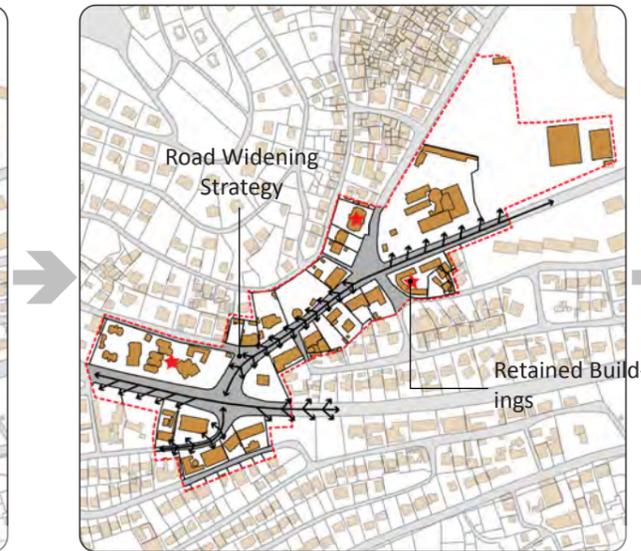
Gisimenti Gateway - Illustrative Plan

MAKING IT HAPPEN - GISIMENTI GATEWAY



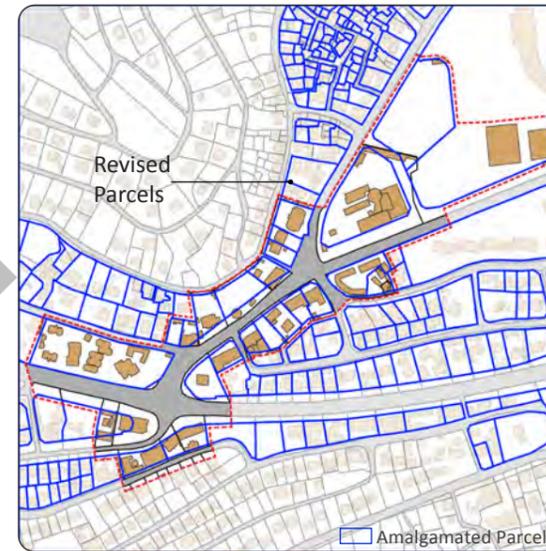
1 - ISSUES

- Road width and alignment does not permit smooth flow of traffic.
- Parcel sizes do not conform to the proposed zoning.
- Road Junctions at the Gisimenti Gateway and UNAIR building need to be resolved.



2 - STRATEGIES

- Strategically realign and widen the roads to ease traffic flow and cater to future demand.
- Cause minimum disturbance to the buildings that need to be preserved and to private development by expanding the road only on one side.
- Important and heritage buildings are retained.



3 - AMALGAMATION

- With the road widening strategy laid out, parcels are amalgamated wherever necessary to abide by the zoning regulations for minimum plot size.
- Minimum number of parcels have been amalgamated to reach the parcel size requirement for the zoning.



4 - PROPOSAL

- The proposed redevelopment demonstrates organized built mass and compact development with widened roads and redesigned junctions.
- Vehicular and pedestrian traffic flow is improved as a result.





A pulsating Civic Heart

The location has a great advantage because of the adjacent stadium, however, the proposed development needs to respect the character of institution and the heritage sites surrounding it.

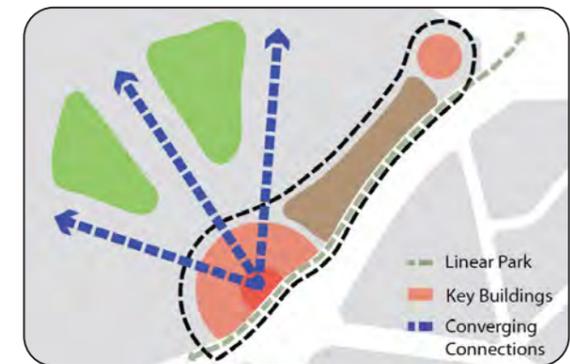
Being located at the highest point, the site offers a strategic setting to develop a prime urban landmark that can be viewed from a distance.

There is an opportunity to capture the scenic views of the valleys to the south.

The existing bend in the road alignment generates potential to develop a unique built form to generate an interactive and live townscape.

About fifty percent land is under government ownership with some good quality existing civic buildings.

Amahoro Civic Square D



Concept

A new development node has been conceived at the confluence of the Sports and Education facilities. It stretches across either side of the road junction formed by the intersection of Remera Road and the realigned Intwari Road. This development will act as the anchor and point of reference for the entire development. The civic activities within this precinct will include museums, cultural centre, libraries, and so on, that will also complement the surrounding activities. The proposal aims at creating civic destination and a point of convergence through the Central Green.

Place Making Strategies

- Sense of convergence
- Civic destination within a green setting
- Permeable built form

Image Source: Google Images



Civic Buildings

These 3 nodal buildings form the highlight of the Amahoro Civic Square. They will house a museum, library, performing arts auditorium and other support facilities. The porous building mass helps establish visual and physical connections with the Central Green in the rear. The lower levels will house the retail and F&B outlets opening on to the plaza.

Commercial Street

The Linear Park transforms in to a lively commercial street with a commercial arcade on one side and kiosks on the road side to form a human scale walking experience enriched by several activities along the way. The commercial strip terminates in a hotel development that occupies the corner parcel at the junction of Remera and Intwari road.

Civic Plaza

The Civic Plaza forms an extension of the Linear Park. It forms the foreground of the 3 key buildings housing the civic facilities and amenities. The plaza has been raised by half a floor in order to capture the scenic views of the hills and valleys it faces to the south. The stepped design allows for people to sit, relax and enjoy this view.

Green Island Interchange

The Green Island Interchange is the most visible feature for anyone travelling along this stretch of Remera road. It has been developed as a space that receives the people using the public transit and diffuses them to the Civic Plaza across the road, which is accessed through the underpass without encountering vehicular traffic.

Amahoro Civic Square

Urban Design Features

CIRCULATION

ACCESS

The Green Island Interchange on the junction of Remera Road and Boulevard de IOUA becomes a feature element of this node. It forms the MRT and BRT interchange within a unique green park setting. The island also houses the entrance to the underpass connection that opens up on to the civic plaza on one side of the road and the walkway of the other side as well. This ensures zero vehicular traffic interference for people alighting and moving out and vice versa and also ensures safety and weather protection. The roads have been realigned to create the interchange by including some part of the parcel to the north of the road. The island will also help channelize vehicular movement along both the roads.

PEDESTRIAN CONNECTIVITY

The grand plaza acts as an extended part of the Linear Park by providing a congregation space for people experiencing the journey between the 3 key nodes. The linear park becomes a covered all weather street between the stretch of the plaza to the corner hotel on the eastern corner parcel. Pedestrians can easily orient themselves with the landmark buildings and the markers such as the Amahoro Stadium, Heroes Park and the Amp hit re subway that are established within the lines of vision at a distance and can be viewed though the porous buildings. These secondary links branch out from the plaza and the linear park to connect to the Urban Parks and iconic developments such as the Amahoro Stadium, the Heroes Park and the Kigali Institute of Education.



The Civic Plaza that forms the main feature of the Amahoro Civic Square with the 3 marker buildings forming a backdrop.



The Linear Park transformed in to an active commercial street with a shopping arcade, kiosks and restaurants forms an vibrant destination both in daytime and night.

PUBLIC PARKING

The entire stretch of buildings forming the link between the plaza and the hotel along the northern edge of Remera road will house public parking with 3,300 lots in the basement. As the road planning standards does not provide for parking, the public parking has been strategically located centrally to solve the insufficiency on parking and free up ground level space for pedestrian activities. The access to the parking has been taken from the rear of the building through the realigned Intwari road to avoid any disturbance along the arterial Remera road.

URBAN SPACE

PLAZA

The profile and location of the plaza has been designed in order welcome people from all directions. People alighting on the Green Island Interchange are greeted with the view of a grand active public space that invites them inside. The plaza is seamlessly connected to the public transit via an underpass that further goes on to connect to the other side of the road. It also allows pedestrians to go through and access the Urban Parks in the background of the buildings. The plaza is elevated by half a floor so that people get an unobstructed view of the valley and greens to the south. The plaza also forms an intermediate resting place along the Linear Park.

RETAIL & COMMERCIAL STREET

The part of the linear park spanning between the civic plaza and the corner hotel is conceived as an active retail and commercial street marked by a formal building facade on one side and informal kiosk setting on the road side. This gives a unique character to this section of the Linear park by breaking away from the park experience and adapting to the character of the Civic Node.



The green island interchange is the most visible feature for anyone using this stretch of Remera road. It receives the people and diffuses them the Civic Plaza through the pedestrian underpass.



The porous built form creates a visual and physical connection from the civic plaza to the activities of the Central Green in the rear.



BUILT FORM

DIRECTION MARKERS

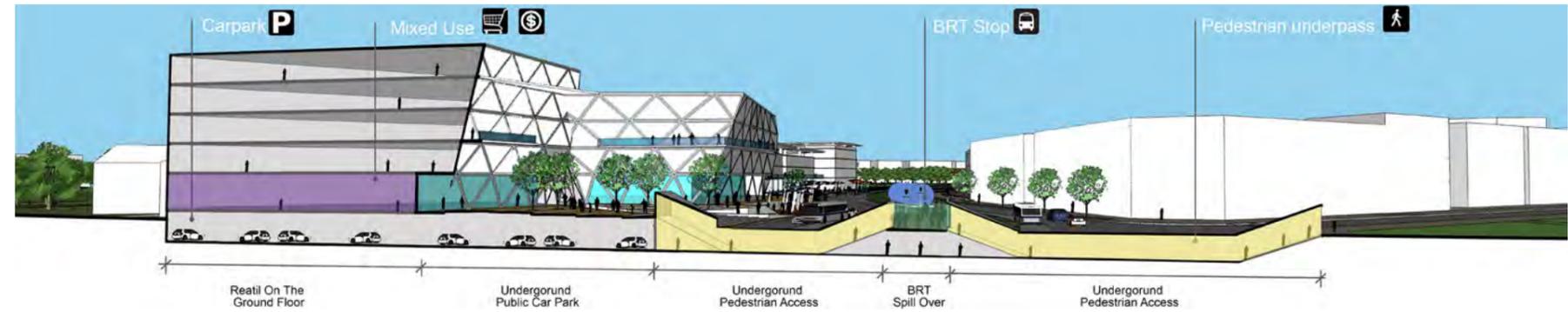
Two markers have been introduced within the Central Green on the western side of Intwari Road. The landmarks are strategically located in the line of vision cones formed by the visual axes between the buildings that form the background of the plaza. They will help in orienting people towards the urban parks and give a sense of direction. One of them is the Amphitheater that links the parks on either side of the road. The second marker is an iconic monument sitting within a water body setting that symbolizes Kigali along the visual axis from the plaza to the Amahoro stadium.

LANDMARK BUILDINGS

The buildings that act as landmarks are the proposed corner hotel at the junction of Remera Road and Intwari Road, and civic buildings forming the backdrop to the grand plaza themselves. As one travels along the Remera road, these buildings will catch the eye of the commuters and help enhance the sense of place. Among the three civic buildings, the central one will house a library, the western building will house a museum and the eastern will house a movie theatre. The lower levels of the buildings house retail and F&B that spill over on to the plaza. The façade of the buildings have been split to give glimpses of the iconic developments in the background.

ACTIVE EDGES

The buildings marking the civic plaza, the road junction and the stretch of road connecting to the corner hotel will house activities that will engage the people walking along. These include retail uses, F&B, and utility shops. However, the building edge along the southern side of Remera road will not be continuous because of the private ownership of the parcels. Even



then, the private owners are encouraged by extending their building edges on to the street through awning gestures to activate the pedestrian walkway.

RETAINED BUILDINGS

The newly built polyclinic buildings to the north of the civic buildings have been retained. The Remera Catholic church on the southern side of Remera road is retained and buffered with dense plantation to prevent disturbance and to offer a soothing view for the people using the civic square.

PUBLIC REALM

Two important features of the public realm at the node are the pedestrian connectors through the buildings leading to the Central Green and the Kiosks lining the Remera road to form an active human scale commercial street. The civic plaza is designed stepping down to the road allowing it to be used as an open seating for people to relax and effortlessly negotiate the level difference.

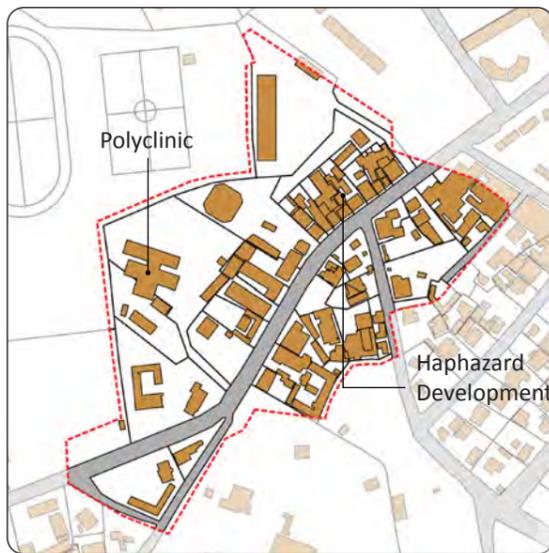
The green island interchange will also function as a minipark with street furniture allowing people to take a breather. A pedestrian underpass connects the people from the BRT to the civic plaza without encountering vehicular traffic.

The stretch of the Linear Park housing the kiosks is designed with outdoor seating and will transform into a brightly lit active space at night.



Amahoro Civic Square - Illustrative Plan

MAKING IT HAPPEN - AMAHORO CIVIC SQUARE



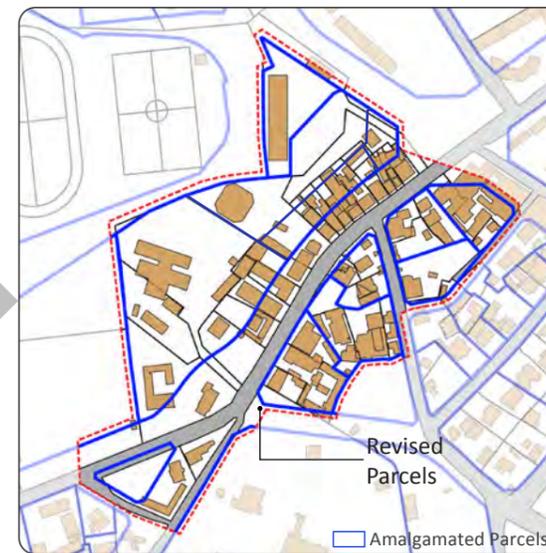
1 - ISSUES

- Unplanned development needs to be redeveloped.
- Boulevard de IOUA needs to be upgraded.
- Junction between Remera road and Boulevard de IOUA needs to be resolved.



2 - STRATEGIES

- Remera road is converted to major arterial.
- Remera road expanded only on northern side to avoid disturbance to private development.
- Boulevard de IOUA converted to major arterial by expanding on western side to avoid disturbance to the church development to the east.
- Newly built polyclinic buildings and other good buildings are retained.



3 - AMALGAMATION

- The parcels are amalgamated and reprofiled to adhere to the zoning for minimum plot size and road widening.
- Large parcels created by amalgamation to the north of Remera road in order to create a marker nodal development with single ownership.



4 - PROPOSAL

- The proposed development demonstrates a redesigned junction and transit oriented development surrounding it.
- Retained buildings are incorporated in the proposal.
- Vehicular access avoided from Remera road.

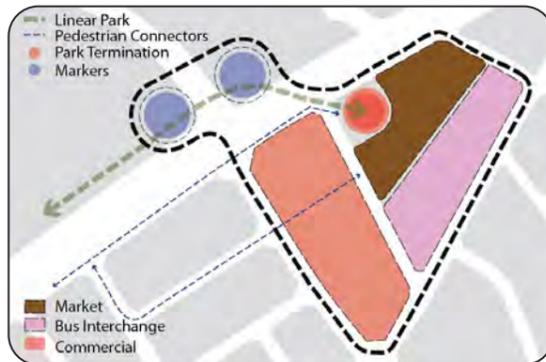




A Bustling Market Place

E

Kimironko Market

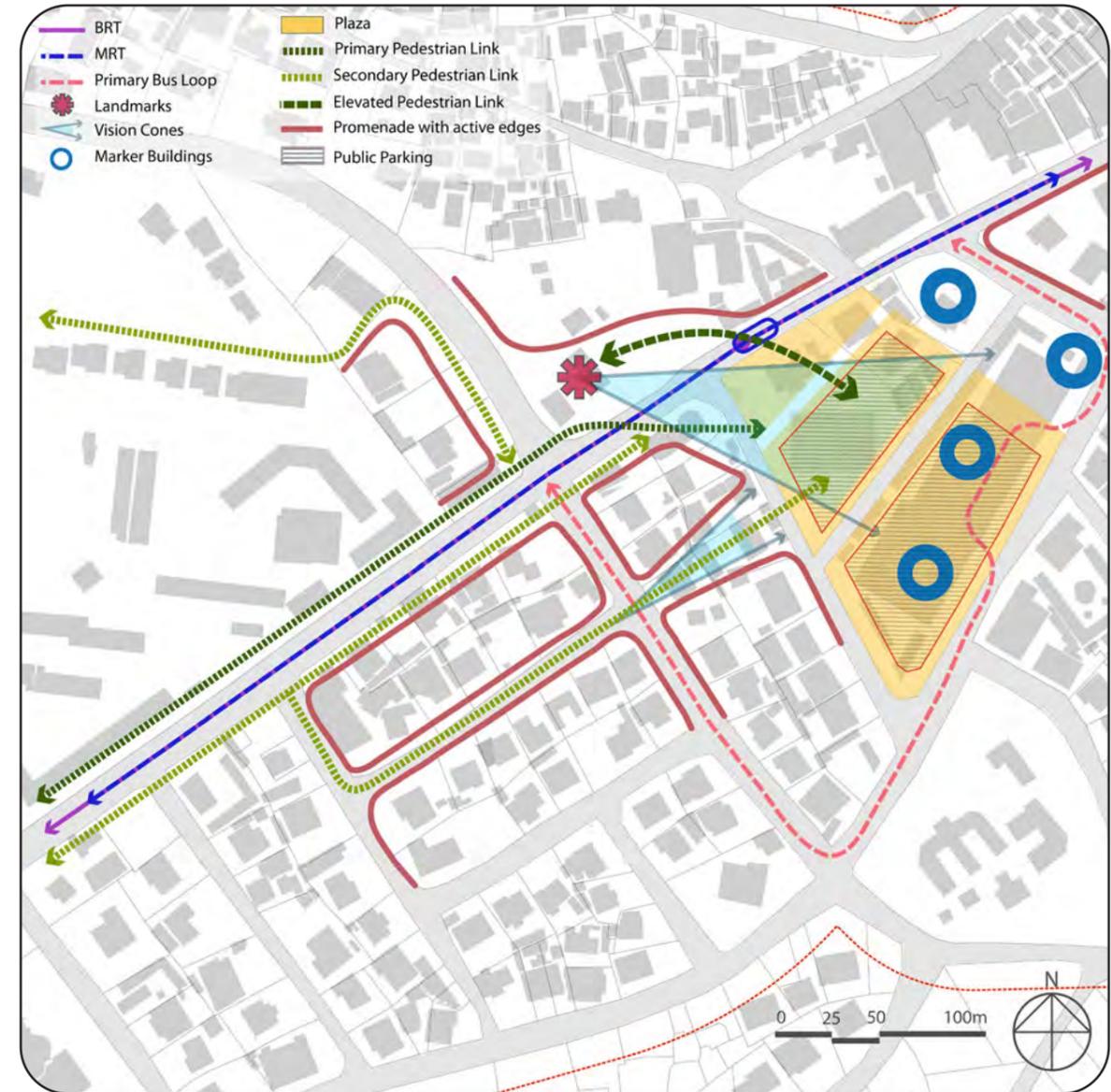


Concept

The Kimironko Market forms the termination of the Linear Park that connects all the key nodes in the Edu.Tainment Hub. It has been conceived as a bustling marketplace with an integrated bus interchange. The solution capitalizes on the existence of the Kimironko market and proposes to enhance its image without losing the informal character of the space. An additional commercial component makes redevelopment viable and takes advantage of the site proximity to the MRT and BRT.

Place Making Strategies

- Termination of Linear Park
- Integrated Transport Hub
- Elevated Active Urban Space



Structure Plan

Image Source: Google Images



Marker Commercial Development

This development has been designed as a marker, and receives the people from the Linear Park to direct them to the Market. The corner building will house a souvenir shop and a roof top cafe. The street will be lined by kiosks on the road side to create a human scale space before arriving at the grand market plaza.

Commercial Buildings

The commercial buildings form the backdrop to the market plaza. They help in utilizing the development potential of the site and its location adjacent to the transit node. An elevated pedestrian bridge provides direct access to pedestrians from the transit node to the buildings.

Passive Linear Park

This stretch of the Linear Park is designed as a passive one, with the intention of creating a leisurely walking experience through the lush green landscape. This complements the quiet and peaceful atmosphere in the KIE which is to the immediate north.

Market Plaza

The primary feature of this node is the Grand Market Plaza that has been redeveloped and revitalized to enhance the image of the existing market. It forms the termination of the Linear Park. The lower level houses the existing functions of the wet market. The upper level forms a bustling open to sky market plaza.

Commercial Street

The southern edge of Remera road is characterized by a fragmented edge of commercial and mixed use developments that open out on the walkway. This forms the second approach for pedestrians to the market plaza.

Integrated Bus Interchange

The bus interchange has been re-located to the rear and occupies the lowest level of the commercial buildings. The ingress and egress for the interchange have been limited from the local roads to avoid commotion on the Remera Road. It demonstrates a unique model of pedestrian centered compact mixed-use development.

Kimironko Market

Urban Design Features

CIRCULATION

ACCESS

The market place is conveniently accessed from the strategically located MRT and BRT stations on Remera Road. The alighting point for the transit is located on the broad median in front of the marketplace. An elevated covered walkway connects the pedestrians to the market place as well as to the opposite side of the road without any interference with vehicular traffic. The marketplace can also be accessed conveniently from the bus interchange located on the western side of the market. The bus interchange ingress and egress are independent along local road to the east of the parcel with no interference from private vehicles. Pedestrians can also access the market place through the interchange. The private vehicle access has been designed as a one way through connection with the ingress on the western side of the parcel and the egress on the north-eastern side.

PEDESTRIAN CONNECTIVITY

The buildings to the south-west of the market building have been shaped in order to provide a clear visual link to pedestrians approaching from the Linear Park. The market plaza forms the termination of the Linear Park. People alighting from the public transit can directly access the market plaza at the podium level through the pedestrian bridge. People arriving from the linear park can cross over at the signalized junction to access the market. A secondary pedestrian link has also been proposed that runs parallel to the road along the internal road to the south of Remera Road to improve pedestrian access for people living in the immediate vicinity.



The approach to the market is through a human scale commercial street with a formal commercial frontage on one side and an informal setting with kiosks on the other.



The marker building housing the souvenir shop and roof top cafe receives the people from the Linear Park and redirects them to the market plaza.

PUBLIC PARKING

Public parking is located in the basement below the market building and houses 1,050 lots. The public parking will be very convenient for people driving in to the market as they can directly load their commodities by accessing the parking through the elevators. The parking not only serves the market but the greater community at large to address the current issue of insufficiency of public parking spaces.

URBAN SPACE

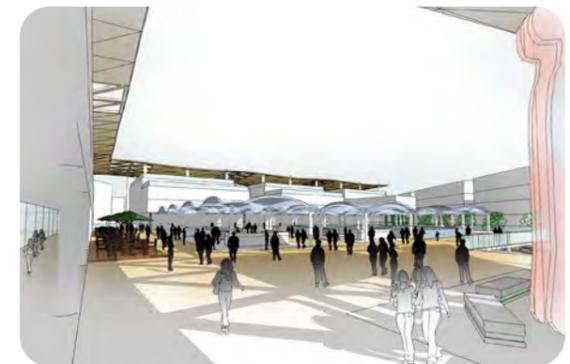
PLAZA

The bustling market plaza adjacent to Remera road forms the termination point of the Linear Park connecting all the three key nodes. It is characterized by a raised deck housing the dry market activities covered with a tensile roof that protects from rain but allows natural light to penetrate. The existing activities of the wet market will be accommodated at the ground level to allow for easy servicing from the rear. The elevated plaza creates a grand feeling with wide steps leading one to the upper levels. The building edges abutting the plaza will house activities that can open out on to the plaza.

BUILT FORM

DIRECTION MARKERS

The proposed commercial development that houses the souvenir shops and F&B, located on the northern corner of the road junction, forms the marker. This two storey building forms a point of reference for the people commuting along the road. This building forms a pedestrian retail street paired with the adjacent buildings on two sides - first, on the roadside to the south with informal kiosks, and second on the northern side with the proposed hotel and mixed use development.

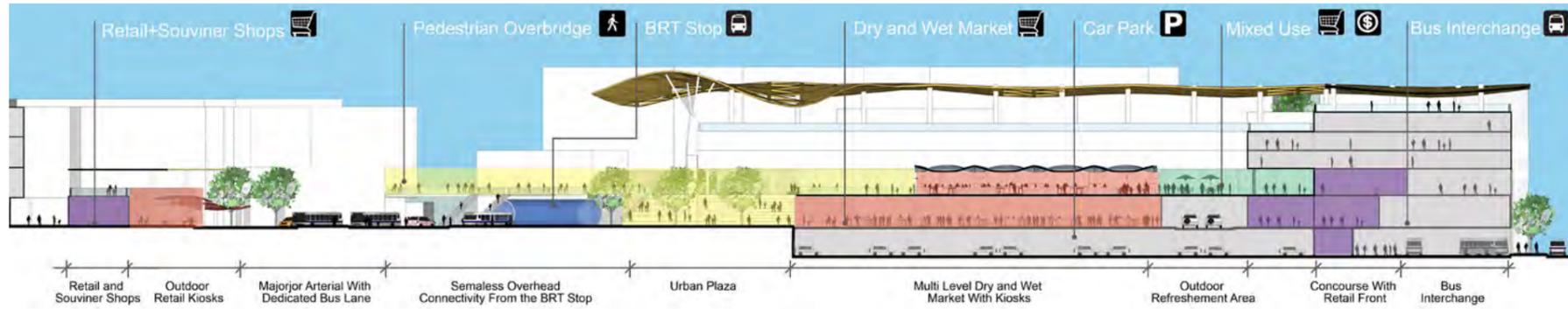


The grand Market Plaza, with the backdrop of the commercial buildings, forms the primary feature of this nodal development. The lower level houses the wet market and the upper level is a vibrant plaza space with commercial shops, restaurants and a flea market.



The bus interchange is integrated with the commercial and market facilities to demonstrate a unique model of integrated development.





LANDMARK BUILDINGS

The revamped Kimironko market building forms a landmark development by revamping the character of the market. Commercial mid-rise towers, located at the current location of the Kimironko market form the backdrop of the lively market plaza. The bus interchange has been relocated to occupy the lowest level of the commercial buildings and links all the commercial buildings together. The market is proposed to be functioning as a supermarket along with its current wet market use. The wet market will occupy the ground level to be serviced easily.

ACTIVE EDGES

The building edges marking the junction, the secondary pedestrian link and along the primary bus loop will house activities that engage people walking along the streets. These include retail, F&B and utility stores. The marker building across the road will also act as a very active point of reference.

PUBLIC REALM

A similar strategy as adopted in the Gisimenti Gateway will be applied here with the walkways at grade with the roads and separated by bollards, planters and street lamps. The welcome plaza offers shaded seating areas for the visitors.

A pedestrian street lined by kiosks and commercial shops forms the approach path to the market. Across the road, another similar street diverts the people from the Linear Park to the market plaza.

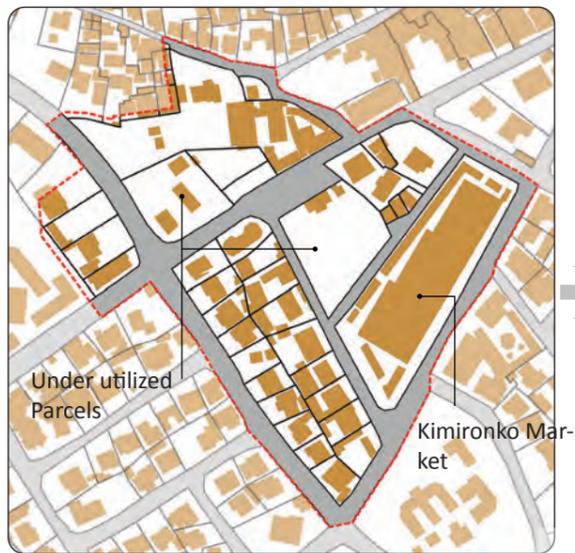
An elevated pedestrian bridge helps in getting people across to the market or the opposite side of the road from the BRT stop thus maintaining the public realm continuity.



1. Market Plaza
2. Welcome Plaza
3. Commercial Buildings + Bus Interchange
4. Bus Interchange Ingress
5. Bus Interchange Egress
6. Marker Building- Souvenir shop + Cafe
7. Hotel + Commercial
8. Pedestrian street
9. Private/Service Vehicle Ingress
10. Private/Service Vehicle Egress
11. Private Development
12. Commercial Building with active ground floor
13. Pedestrian street with kiosks
14. Pedestrian connector
15. Taxi Drop-off
16. BRT Stop
17. Overhead Pedestrian bridge
18. Commercial with ground floor arcade

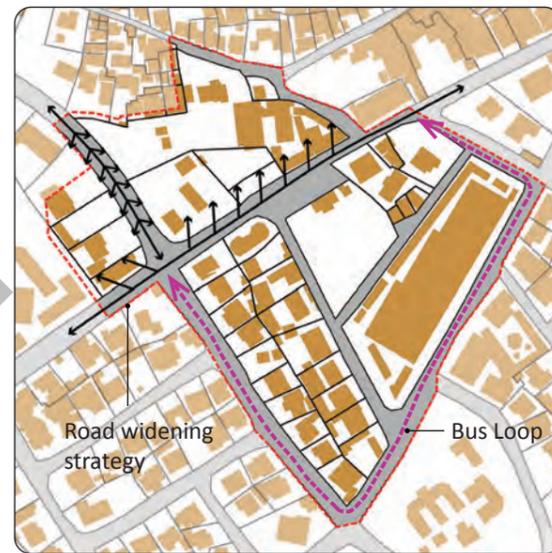
Kimironko Market - Illustrative Plan

MAKING IT HAPPEN - KIMIRONKO MARKET



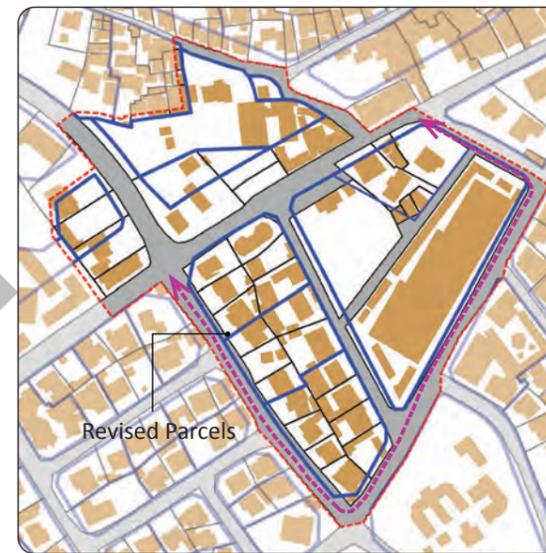
1 - ISSUES

- Parcels are underutilized with vacant lots.
- Roads need to be rationalized and expanded to solve traffic issues.
- Insufficient public parking facilities.
- Unorganized market with informal activities spilling on to the road.



2 - STRATEGIES

- Roads are strategically expanded to cause minimum disturbance to private parcels and important buildings.
- A bus loop is introduced to access the relocated bus interchange.
- Direct access from public transit provided.
- Market redeveloped by segregating wet and dry activities.



3 - AMALGAMATION

- Parcels are amalgamated to adhere to zoning requirements.
- The bus interchange and market parcels are amalgamated to generate a unique integrated mixed use development.
- Through pedestrian connections introduced to improve permeability of blocks,



4 - PROPOSAL

- Proposal demonstrates a high density compact development to take advantage of the transit.
- Vehicular and pedestrian access routes are redesigned to allow smooth flow of motorized and non-motorized traffic.



F

Informal Housing



- 1. Existing Retained Hotel
- 2. Commercial Mixed Use along road
- 3. Community Open Space
- 4. Slow Vehicular roads
- 5. Informal Residential Development
- 6. Multi-Storey Car Park

Informal Housing - Illustrative Plan



Concept

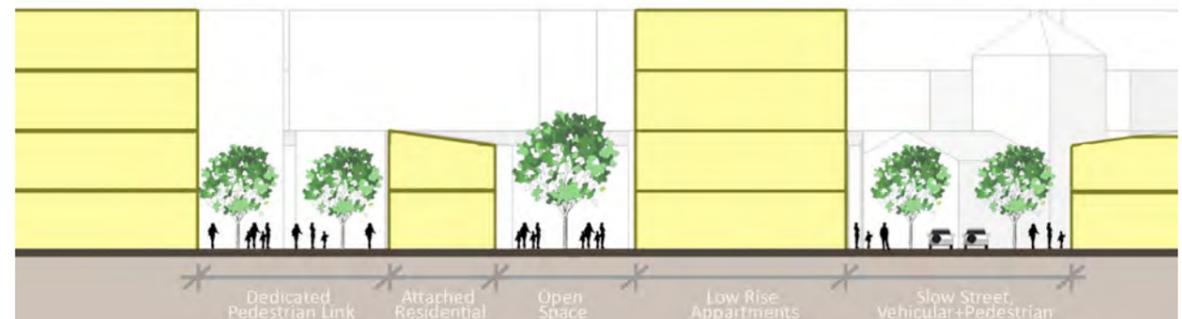
This development capitalizes on the existing character of the development by redeveloping and rationalizing the precinct in to informal housing by creating intimate streets and public spaces.

Strategies

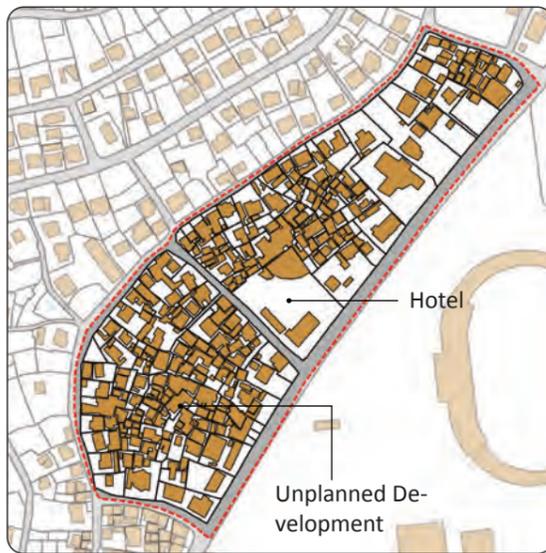
The parcels abutting the major road have been zoned as C1. As of today, the road front is very active with activities such as restaurants spilling out on to the street. Therefore, the C1 zoning will help and use this character to develop a more organized commercial development with an active road front.

The remaining parcels to the north within the precinct are zoned as R2A. This allows a mix of residential uses to come up such as attached multi storey housing, detached apartment blocks and some quantum of single family houses.

One way streets have been introduced following the cadastral lines to provide vehicular access without causing much disturbance to the parcels. A multi storey parking block located the northern corner of the precinct will serve as the residents of this precinct.



MAKING IT HAPPEN - INFORMAL HOUSING



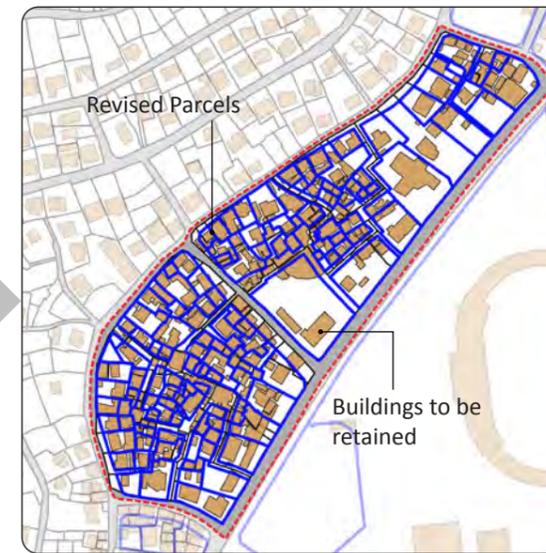
1 - ISSUES

- Existing development is unplanned with not vehicular or pedestrian access.
- The activities in the buildings along the major road spill on to the vehicular road causing hindrance to the traffic.



2 - STRATEGIES

- The road cutting across the precinct has been rationalized and widened to the south to avoid interference with the hotel development.
- A network of slow one way streets with combined vehicular and pedestrian use provides access to the interior developments.
- All buildings to be redeveloped but to maintain the informal character.



3 - AMALGAMATION

- Parcels are amalgamated to conform to the minimum plot size of R2A zone.
- The parcel with the existing hotel development is retained as is.



4 - PROPOSAL

- The proposal demonstrates a much more organized development.
- Revised road and pedestrian network creates intimate streets and also provides access to the interior developments.

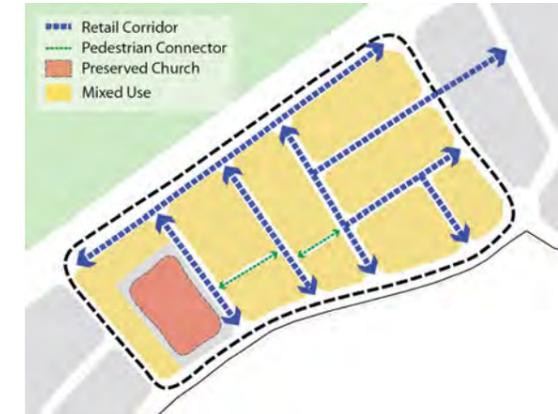


G

Retail District



Retail District - Illustrative Plan



Concept

This precinct is conceived to capitalize on the existing developing retail character of the neighborhood. It will form intimate scale slow streets with retail activities fronting the walkways as illustrated in the pictures.

Strategies

C1 zone has been assigned to these parcels considering the present use and the development trend. The area has been primarily developed as a retail district. This falls in tune with the surroundings as the Kimironko Market node is located immediately to the north of this precinct.

The development form comprises of mixed use apartment buildings with commercial and retail uses at the ground level. The development draws in people from the active Remera road front and diffuses them to the Kimironko market. It forms a foreground to the Kimironko Market development by introducing the retail character before being exposed to the market itself.

MAKING IT HAPPEN - RETAIL DISTRICT



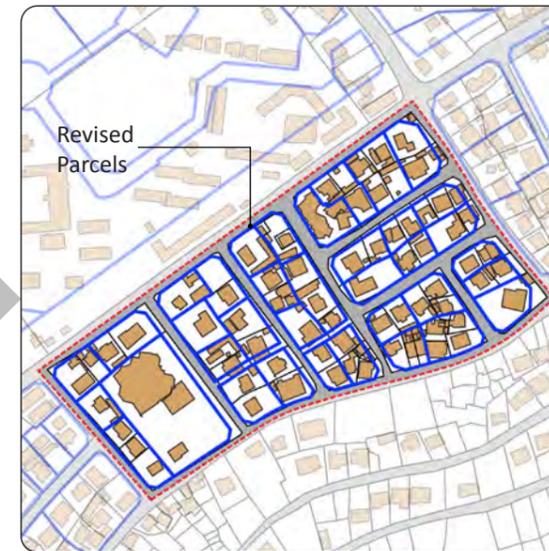
1 - ISSUES

- Existing development does not utilize the full potential of the development with mostly single family houses.
- Roads are not developed and rationalized.
- Parcels are not conforming the zoning size requirements.



2 - STRATEGIES

- Rationalize and expand streets to ensure smooth flow of pedestrians and vehicles.
- Retain the existing church.
- Densify development to extract maximum potential.



3 - AMALGAMATION

- The parcels have been amalgamated to follow the minimum parcel sizes according to zoning.
- In several instances the parcel sizes are affected by the road widening.



4 - PROPOSAL

- The proposed development demonstrates a system of organized streets and built form to mark the retail district character.
- Clear demarcation of pedestrian and vehicular circulation helps in smooth flow of traffic.



H

Entertainment District



Entertainment District - Illustrative Plan



Concept

This precinct has been conceived with the intention of concentrating all the recreational and entertainment activities such as discotheques, affordable hotels and restaurants within a consolidated neighborhood. It will serve as an everyday hangout destination for the residents and visitors.

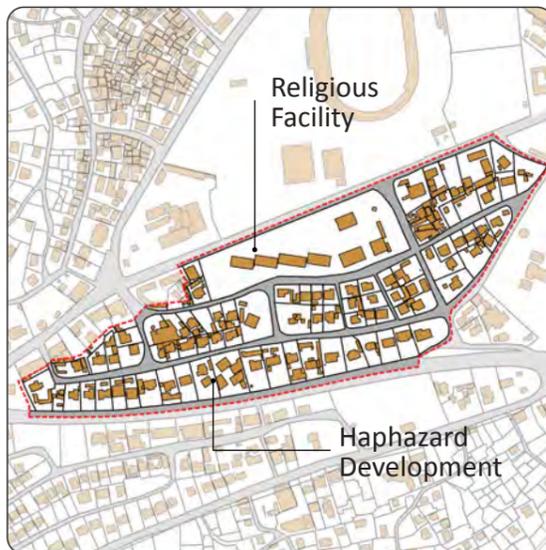
Strategies

The C3A zone helps in achieving the low rise high density compact development necessary to make the precinct successful.

The built form comprises of zero side setback buildings that form a continuous active street edge. Arcades are mandated for most parcels, except a few large ones. This gives the development an identifiable character of its own.



MAKING IT HAPPEN - ENTERTAINMENT DISTRICT



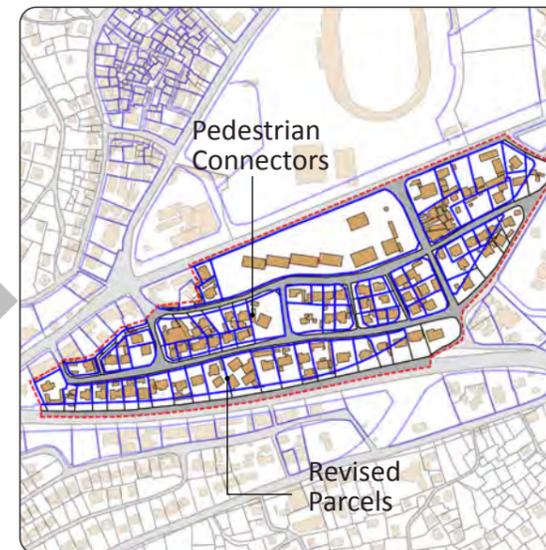
1 - ISSUES

- Lack of character to the precinct.
- Haphazard building pattern
- Roads need to be resolved for efficient use.
- Parcels do not conform to the zone requirement.



2 - STRATEGIES

- The existing roads need to be rationalized to allow for smooth flow of traffic.
- The religious facilities existing on the site need to be retained.
- Pedestrian connectors are introduced for ease of commute within the precinct.



3 - AMALGAMATION

- The parcels are amalgamated and reprofiled to follow the zoning guidelines and also taking the road widening in to consideration.



4 - PROPOSAL

- The proposed development showcases a dense compact development.
- Well designed streets help in smooth flow of vehicular and non-vehicular traffic.



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6 THE ROAD MAP TO FUTURE GROWTH



Key Plan of Catalyst Projects

Catalyst Projects

Objectives

The Catalyst Projects are essential to identify short-term developments that will give the initial momentum to the growth in the focus areas. The main purpose of identifying the catalyst projects is to stimulate development in the areas in tune with the design ideas and demonstrate a quality development that will set the standard for the surrounding developments to live up to. The important issue with these projects is that they need to be implemented in a timely manner in order to trigger the development on time and in the right direction.

These projects will also help speed up the development process and therefore aid employment generation, housing supply, and rejuvenating urban areas with existing developments.

The projects have been sequenced so that the infrastructure is first put in to place that will help supporting the future developments.

Identified Projects

1. Remera road linking the 3 nodes
2. Realigned Intwari Road
3. Public Parking Building at Gisimenti Gateway
4. UNAIR Building + Hotel + Public Parking
5. Commercial Buildings at Amahoro Civic Square
6. Kimironko Market development
7. Corner Buildings + Underground Plaza at Gisimenti
8. Central Green Landscape

Infrastructure

Buildings

Selection Criteria

Minimal ownership constraints.

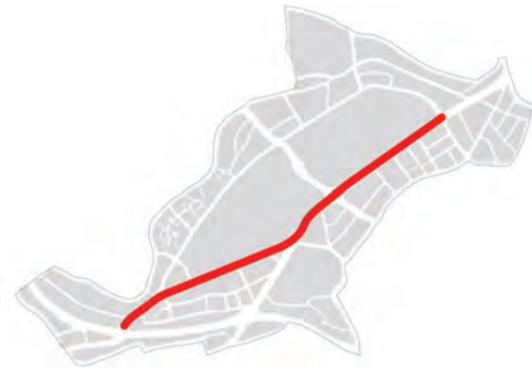
Capability to showcase potential solutions for urban regeneration.

Possibility of execution of the project within a reasonable time frame of 5 to 10 years.

Capacity to attract investments.

Feasibility of execution under the PPP mechanism by selecting the appropriate scale of the project.

Possibility of taking advantage of the existing infrastructure.



1

Remera road linking the 3 nodes + BRT

Putting the critical infrastructure in place to service the further developments becomes the next priority. This will help in absorbing the added passenger and vehicular traffic load that will be generated from future developments. The approximately 2.2 Km long stretch of the widened road, which includes the BRT, connecting the 3 key nodes will be included in this development. This includes the bus stops but excludes the MRT that will come up in the future as the demand increases to a critical mass of people. The pedestrian path along the northern edge of the road is designed as a Linear Park connecting the 3 key nodes.

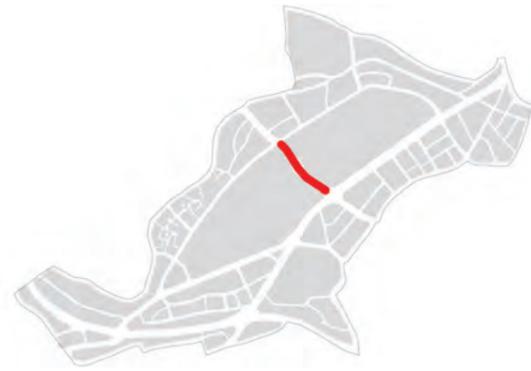
Ownership
Government

Current Status
Dual one carriage way road.

Proposal
Dual two carriage way road and Bus Rapid Transit.

Length
2.2 Kilometers

Highlights
Major Arterial, Street Furniture, Linear Park, BRT



2

Realigned Intwari Road

The existing Intwari road running north south in between the sports and education facilities has been realigned and widened. This has been done as part of the traffic calming measures by aligning the road to adjacent road junctions. The median of the road bulges out in the center to form a puncture that provides light and ventilation to the pedestrian underpass below. This road is the only north-south vehicular through access connecting the Remera road to the northern developments.

Ownership
Government

Current Status
Dual one carriage way road.

Proposal
Dual two carriage way road.

Length
0.4 Kilometers

Highlights
Major Arterial, Street Furniture, Pedestrian Subway



3

Public Parking Building at Gisimenti Gateway

The multi-storey parking building within the Gisimenti nodal development has been identified as the next priority. It will house 300 car parking lots. This development will help solve the parking issues by providing sufficient parking to the nearby residents and visitors. Since the BRT (and future MRT) stations are also located within easy walking distance from this building, people will be encouraged to use public transit. The clearing of the haphazard street parking will also aid in smoothing the redevelopment process of the other adjacent parcels. Parking slots for parcels across the road will be reserved in this building as they do not get direct access from the Remera Road. The ground level of the building fronting the road will house commercial and retail.

Ownership
Government

Current Use/s
Vacant

Proposed Use/s
Multi-storey public car park.

Land Area
0.24 Ha

Number of Parking Lots
300



4

UNAIR Building + Hotel + Public Parking

This development becomes the first priority to kick-off the development. It will take the first step towards achieving the Urban Design goals by creating a compact development with a vibrant street edge. The proposed Commercial and Hotel functions tie in with the Gasabo District vision to become the Administrative Metropolis. 1.06 Ha land area with the existing UNAIR building will be redeveloped, and the hotel will be an urban infill built on a vacant parcel measuring 1.3 Ha to the west of this development in order to densify and use the land to its maximum potential. The development will help tie together the Gisimenti nodal development with the Linear Park and the Central Green.

Ownership
Private + Government

Current Use/s
UNAIR office

Proposed Use/s
Commercial + Hotel

Land Area
Hotel 1.3 Ha, Mixed Use 1.06 Ha

Gross Floor Area
0.052 million sqm





5

Commercial Buildings at Amahoro Civic Square

This development includes the commercial buildings within the central node to the north of Remera road. The existing unorganized development will be redeveloped in to a civic destination that will house activities such as library, museum and auditorium. Important existing buildings such as the newly built polyclinics can be retained and integrated in to the new development. This development forms the focal point of the entire development. It acts as the tying element between the sports and education facilities. The current ownership is with the government, which makes it easy to redevelop. It will house a public car park.

Ownership
Private + Government

Current Use/s
Unorganized Commercial

Proposed Use/s
Commercial + Civic Amenities

Land Area
4.5 Ha

Gross Floor Area
0.137 million sqm



6

Kimironko Market Redevelopment

One of the most critical developments is the redevelopment of the Kimironko market. The development will also house the state of art bus interchange, and a public car park with 1,050 lots along with market and commercial functions to demonstrate a unique model of integrated development. The purpose of this redevelopment project is to enhance the character of the already existing market and to provide additional developable area for the government to extract the maximum development potential taking advantage of the public transit node.

Ownership
Private + Government

Current Use/s
Market + Bus Interchange

Proposed Use/s
Commercial + Market + Bus Interchange

Land Area
1.9 Ha

Gross Floor Area
0.045 million sqm



7

Corner Parcels + Underground Plaza

This development forms the gateway to the Urban Design area within the Gisimenti Node. It includes the 2 corner buildings and the sub-zero level public plaza. The underground plaza needs to be implemented to achieve the unhindered pedestrian access from the public transit to the Gisimenti Node and further. The plaza will be activated by retail shops and cafes. The edges of the corner buildings fronting the plaza will open up in to it. 4 grand artifacts rising out of the punctures in the road junction, as demonstrated, give an identity to the gateway.

Ownership
Private + Government

Current Use/s
Commercial

Proposed Use/s
Commercial + Retail

Land Area
Commercial 0.88 Ha, Plaza 1.4 Ha

Gross Floor Area
0.021 million sqm



8

Central Green Landscape

Opening up the currently fenced up Central Green and developing the landscape helps in filling the gap of the lack of a neighborhood park within the Urban Design Area. It taps on to the Linear Park running to the south of it and also works as a spillover space for KIE and the Primary School. Being centrally located, it is easily accessible from the fringes of the Urban Design area. It can also be transformed in to a space to host open air activities such as concerts, fairs and exhibition space.

Ownership
Government

Current Use/s
Education

Proposed Use/s
Education + Student Housing

Land Area
Approximately 4 Ha

Features
Park, Pedestrian and Bike trails, Sports activities



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7 A SUSTAINABLE EDU.TAINMENT HUB

The Urban Sustainability Framework at the planning level translates to the urban design of the Edu. Tainment Hub. It looks at the three pillars of sustainability - social, economic and environment. Sustainable strategies are integrated in many aspects of the urban design. Ideas of creating a "Resilient City" is an inherent part of the design strategy. The plan is conceived to be flexible and dynamic to address future shocks and stresses associated with climate change, environmental degradation and resource shortages in the context of global population growth.



Urban Sustainability Framework for Kigali

Source: www.resilientcity.org, Image Source: Google Images

Tangible Measures

Density, Diversity and Mix

Density, diversity and mix of uses, users, building types, and public spaces form essential components of cities and neighborhoods.

In order to achieve the resilience and to reduce the carbon footprint, the city needs to optimize the use of land and space. Uses such as single family homes and other low density suburban developments tend to be under utilized for long periods of time. By contrast, a thriving and dense mixed use development is effectively used throughout the day and also on all days of the week.

This proposal strives to achieve this by proposing redevelopment of under utilized parcels to achieve the desired sustainable density and mix of uses. For instance, the Gisimenti node has been designed as a compact development with the same goal.



Pedestrians First

Cities and neighborhoods should prioritize walking as the preferred mode of travel, and as a defining component of a healthy quality of life.

It is very critical to design for reduction in car-dependency. This is where other modes of travel such as public transit, cycling and walking help in creating more sustainable places and also help improve the quality of life. The cities that have prioritized such green transport initiatives have created thriving locations to live, work, learn and play.

Accordingly, the proposal gives utmost importance to the pedestrian movement by creating a continuous pedestrian network including unhindered access from the public transit nodes. The linear pedestrian park further strengthens this idea by linking the entire development.



Transit Supportive

Cities and neighborhoods should develop in a way that is transit supportive.

Transit is the most sustainable mode of transportation after walking and cycling. Car oriented urban patterns need to give way to transit oriented urban patterns in order to create sustainable cities. This has two advantages – It will improve the quality of life in cities, and, it will help cities in achieving economic success by reducing car dependency in the day and age when fuel prices are peaking.

The proposal follows the same idea by making the BRT and future MRT as the primary mode of transport. High density development around the transit nodes also helps in achieving the desired density to support the public transit nodes and reduce car travel.



Tangible Measures

Intangible Measures

Place-Making

Cities and neighborhoods should focus energy and resources on conserving, enhancing, and creating strong, vibrant places, which are a significant component of the neighborhood's structure and of the community's identity.

Cities need to orient their development to the walking pedestrian scale by creating several local destinations within five minutes walking distance that are capable of attracting certain critical mass of users and activities as has been done in the 3 key nodes in the proposal. Unlike sprawl, these urban downtowns have many kiosks, corner outlets, splendid public spaces, attractive streetscapes that allow them to become sustainable and successful places. Heritage places such as the Chez Lando Hotel give an excellent opportunity for place making as well.



Complete Communities

Neighborhoods should provide the needs of daily living, within walking distance.

An essential strategy to reduce the carbon footprint is to reduce the vehicle miles travelled using private vehicles. To do that, people are encouraged to walk or bike to the destinations within reasonable walking distance. These destinations include workplaces, schools, shops for daily needs, parks and recreation spaces, and other places included in daily activities. The next degree of facilities are accessible by public transit. A well established connectivity network has been established to achieve the pedestrian friendly character. The walking journey has been designed to be pleasant and links the destinations.



Integrated Natural Systems

Cities and neighborhoods should conserve and enhance the health of natural systems (including climate) and areas of environmental significance, and manage the impacts of climate change.

Cities need to conserve and enhance the quality of water, air and land. The health of the community is directly influenced by the quality of these 3 factors and is dependent on the way people choose to live, move around, and develop land. Respecting the existing biodiversity, endangered species and natural features of importance such as wetlands is an important strategy to maintain a healthy ecosystem. Using the naturally green areas, such as the central green, as park spaces by preserving as many trees as possible is another strategy adopted.



Integrated Technical Systems

Cities and neighborhoods should enhance the effectiveness, efficiency and safety of their technical and industrial systems and processes to increase their energy efficiency, and reduce their environmental footprint.

The effectiveness, efficiency and safety of the technical and industrial systems and processes have a direct influence on the economic wellbeing of the cities. Cities need to develop more integrated and highly efficient industrial processes and technical systems that ensure efficiency both in use of resources and eliminating harmful by-products in order to reduce the negative impact of economic activities on the environment. Green transport, natural ventilation for the Kimironko market are a few examples of the strategies used in the proposal.



Intangible Measures

Local Sources

Regions, cities, and neighborhoods should grow and produce the resources they need, in close proximity (200 kilometer radius).

Movement of materials sourced from long distances increases the associated cost every day, especially in today's scenario with increasing fuel prices. Events such as the '100 mile diet' and the 'local food movement' have increased the awareness of these issues among people with respect to the importance of consuming local products and its relation to environmental health. We recommend the use of local goods to satisfy the needs of the community in order to make it more self sufficient and in turn sustainable.



Engaged Communities

The development of sustainable cities and neighborhoods will require the active participation of community members, at all scales.

The citizens of a community bear a huge responsibility in contributing the efforts of planning and in maintaining the health of the community. These include trivial activities such as non-use of plastic bags to huge transformational activities of growing cities. Change comes about by summing the choices and actions of every individual. The stakeholders' meetings and presentations held during the process were an imperative part of the process and demonstrate an effort in this direction. However, the role of the residents continues by following high standards voluntarily.



Redundancy and Durability

Resilient Cities and neighborhoods will plan and design for redundancy and durability of their life safety and critical infrastructure systems.

Planning and design of systems should aim for levels of redundancy and durability that are commensurate with the increasing environmental, social, and economic stresses associated with the impacts of climate change and peak oil. A cities ability to keep its important life safety and key infrastructure systems in good operational condition, even during natural disasters such as storms and floods, directly affect the city's physical, social and economic health. Redundancy and durability of the systems is an important factor to be considered during their planning and design stage.



Resilient Operations

Resilient cities and neighborhoods will develop building types and urban forms with reduced servicing costs, and reduced environmental footprints.

The amount of land and infrastructure required for a sprawling development makes it very expensive to service and maintain. In comparison to this, a compact and mixed-use development, as proposed, is much more efficient in the demand of services and infrastructure. The design promotes such development patterns that will reduce the carbon footprint and also will reduce the load on public services. Dense and compact development proposed throughout the site serves this purpose effectively.



Source: www.resilientcity.org, Image Source: Google Images



Proposed Degree of Achievement of the Tangible Measures

60
MAY 2013

	Central Green	Gisimenti Gateway	Amahoro Civic Square	Kimironko Market	Informal Housing	Retail District	Entertainment District
A Density, Diversity and Mix							
B Pedestrians First							
C Transit Supportive							
D Place-Making							
E Complete Communities							



APPENDIX

CASE STUDIES

Regional Node Development

TAMPINES REGIONAL CENTRE, SINGAPORE

Location: New town of Tampines, Singapore
Area: 53 Ha

Approach

- Creation of a compact and walkable centre through:
- Active & vibrant ground floor around the station.
- High rise - high density urban form.
- Walkable neighborhoods with network of open spaces.
- Distinct skyline & streetscape through arrangement of buildings, height controls and corner articulation.

Programs: Offices, banks, retails, cinema, restaurants., MRT and Bus interchange, Commercial Residential, Parks and recreational center, Reserved sites, Supportive programs : Light industry, business park and Singapore Expo

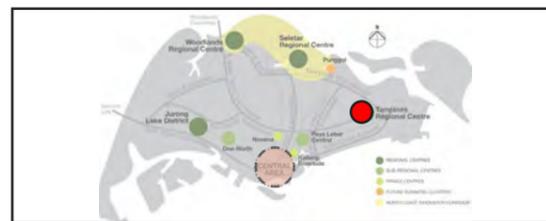
Inference: To create a maximum accessible compact business and financial center integrated with transit.



Context of Tampines Regional Center



Tampines Regional Center



Regional Centre in context of CBD



Images of Tampines Regional Centre

Transit Integrated Development

SOUTH STATION, BOSTON, USA

Location : Downtown Boston, USA
Area : 4.5 Ha

Approach:

- Multi-modal Hub - Interchange between Rail (Red Line), Commuter rail (MBCR), BRT (Silver Line) & City services .
- Compact multilevel design with Bus terminal over the train terminal and underground BRT station.
- Areas connected: Boston's Financial District, Leather District, Fort Point Channel, Chinatown, upcoming Seaport district and linked to International Airport.

Programs: Multipurpose enclosed public space 'Great Room' serves as a concert hall, entertainment area and an exhibition place, a place for annual celebration of National Train Day.

Open space: Plazas fronting the south station serve as entry to underground BRT station.

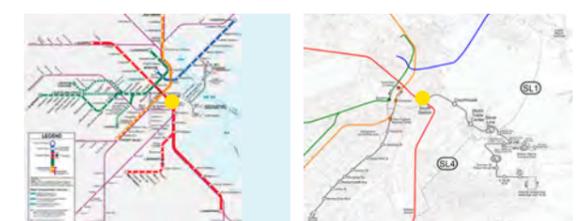
Inference: To create a compact tiered transport hub with multipurpose public space.



Context of South station.



South Station Terminal surrounded by open space



Interchange between Red line & BRT (Silver Line)



Historic facade character & Underground BRT station



Great Room & Preliminary rendering of the place.



Park Rejuvenation

PALMISANO PARK

Location: Chicago, Illinois
 Area: 11 ha

Approach:

- Old limestone quarry site in the central of the city - turned into park as an Urban Oasis.
- Beautiful view of the downtown skyline and surrounding neighborhoods
- A place for various community activities
- Natural retention pond is the main attraction
- School campus adjoining.

Program: Fishing pond, boardwalks, running track, sculptures, natural amphitheater, viewing deck, soccer field, sledging during winter.

Inference: Creating a place for the community. The drain corridor and the ponds could be made into main attraction areas. Sports activities could be planned along the corridor.



Quarry park as an Urban Oasis, well connected



The natural retention pond used for fishing
chicagoparkdistrict.com



fotp.org



fotp.org



foursquare.com



foursquare.com



Boardwalk
landscapeurbanism.com



landscapeurbanism.com



Quarry park as community space
foursquare.com



View of the City
cassisaari.com

Civic Centre

GEORGE POMPIDOU CENTER, PARIS

Location : Paris, France
 Area: 2 ha

Approach:

- Museum itself as monument
- A plaza in front as neighborhood public place and as area to appreciate the structure.
- A place of social and cultural exchange for the City

Programs: Museum of modern art, public library, center for music and acoustic research.

Inference: Creating cultural center as a place for social and cultural exchange.

- Iconic structure creating an 'Image' for Kigali making it an tourist attraction.

PLASSEN CULTURAL CENTER, NORWAY

Location : Molde, Norway
 Area: 0.5 ha

Approach:

- Cultural Center: A room for celebration- inside, on top and around it.
 - Active roof tops to capture great views around
- Programs:** Exhibition area, concert hall, jazz museum, library, gallery, rehearsal studios, cafes.

Inference: Creating active roof tops that enjoy the panoramic vies of wetland.



Roof as the feature.



Vertical staggering of activities



Pompidou Centre - A vibrant cultural and civic centre



Museum as an Icon as well a social gathering space.



Cultural center



Active roof terraces, a new ground.

Underground Mall

CITY LINK MALL

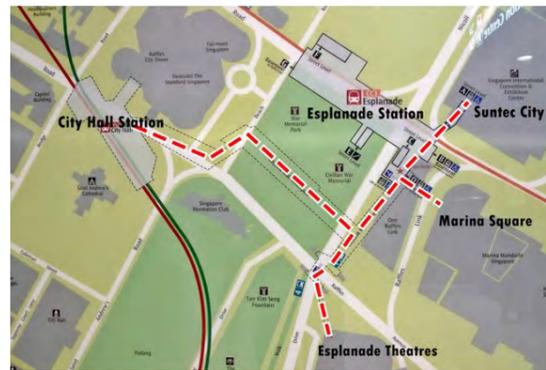
Location : Singapore
Area: 60,000 sqft

Approach:

- Retail space in an air-conditioned subterranean mall, and links One Raffles Link to the City Hall and Esplanade MRT Station.
- With over 50 shops, it offers international fashion names, gifts & accessories, home accessories and some of the best eateries in Singapore.
- Daylight is delivered to the space by glazed pavilions sited on the War Memorial gardens, which creates a bright and cheery feel

Programs: Clothing shops, cafes, gift shops, home accessory shops.

Inference: Effective use of the sub-zero level pedestrian connection between two MRT stations and exploiting the commercial potential.



Location



The shops



Connection to MRT

www.citylinkmall.com



Feature Wall

Open Campus

CORNELL UNIVERSITY

Location : Ithaca, NY, USA
Area: 2,300 Acres

Approach:

- Open quads designed for students to study and play.
- These open space function as the meeting and interaction places for most students in between classes.
- On days such as weekends, the quad is utilized by campus bands to host a concert.

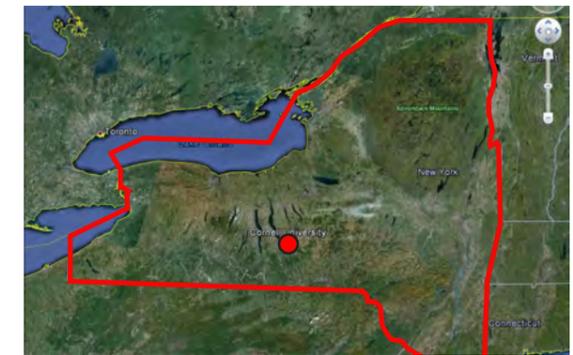
Programs: Education and Research, Cafes, Open Spaces.

Inference: The importance of open spaces in an education campus and its effective utilization needs to be considered while designing.



A Typical Open Quad

www.cornell.edu



Open Spaces



Existing Land Use for Urban Design Area

Land Use	Area (Ha)	Percentage
Single Family Residential	42.67	19.71%
Transportation	32.33	14.94%
Low Rise Residential	29.34	13.56%
Sports and Recreation	21.22	9.81%
Education Institution	18.69	8.63%
Religious Facilities	17.00	7.85%
Government Office	13.05	6.03%
Commercial General	12.42	5.74%
Graveyard	7.30	3.37%
Vacant Land	6.79	3.14%
Mixed Use	3.71	1.72%
Health Facilities	3.14	1.45%
Medium Rise Residential	2.88	1.33%
Hotel	2.80	1.29%
Light Industrial	0.97	0.45%
Commercial Office	0.70	0.32%
Civic Facilities	0.61	0.28%
Open Space and Park	0.48	0.22%
Farm Land (General)	0.16	0.07%
Utilities	0.16	0.07%
Total	216.43	100.00%

Proposed Land Use for Urban Design Area

Land Use	Area (Ha)	Percentage
Road	63.48	29.33%
Mixed Use	47.04	21.74%
Sports and Recreation	18.17	8.40%
Education Institution	16.30	7.53%
Religious Facilities	15.43	7.13%
Commercial General	11.54	5.33%
Medium Rise Residential	11.20	5.17%
Open Space and Park	8.06	3.72%
Graveyard	7.16	3.31%
Low Rise Residential	6.93	3.20%
Health Facilities	2.84	1.31%
Government Office	2.59	1.20%
Hotel	1.79	0.83%
Civic Facilities	1.61	0.75%
Transportation	1.61	0.74%
Single Family Residential	0.63	0.29%
Utilities	0.05	0.03%
Total	216.43	100%

Proposed Zoning for the Urban Design Area

Zoning_Name	Area_Ha	Percentage
C1	57.40	26.52%
R3	54.40	25.14%
RD	32.02	14.79%
C3A	20.69	9.56%
P2	17.54	8.10%
P1	10.47	4.84%
R2	10.05	4.64%
SP	7.30	3.37%
R1A	2.76	1.28%
C2	2.68	1.24%
R1	0.72	0.33%
C3C	0.35	0.16%
IN	0.06	0.03%
Total	216.43	100.00%

General Urban Design Strategies

A Positive Public Realm

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MAY 2013

Elements for a thriving public realm

People attract People. To create a thriving public realm with vibrancy and active usage, the open spaces need to be user friendly and convenient, as well as attractive. Providing activity generating uses is a key strategy, location of public spaces along key routes is another. Creating spaces that stimulate our sense in a positive manner attract people to the space. Some of the elements which are required for an attractive and quality public realm are discussed below.

LANDMARKS AND MARKERS

Landmarks are important features for orientation and way finding in the urban areas. Having landmarks or markers such as distinctive buildings and features, statues etc show the way as well as become attractions in themselves. They can also be strong anchors for public spaces. Several landmarks are identified in the urban design area like the Gisimenti Gateway junction and the clock tower at Remera plaza.



PUBLIC ART

Public Art can be a key contributor in creating character and identity for a place. It can be a magnet to attract people. A public art strategy for the area can help create a unique local identity with the help of developers. Promoting public artist and street performers can also be softer strategies to create fun and attractive public spaces. Public Art is provided in key open spaces such as the Linear Park, Civic plaza and Kimironko market, to be features within the urban spaces.

STREET FURNITURE

Seatings, bollards, litter boxes, poles, flags, kiosks, CCTV etc. form an important part of the urban realm. Carefully designed and thought of street furniture can integrate these varied elements and provide a well designed set of street furniture which are well utilized and durable. Public Art can also be integrated with the street furniture. Street furniture done in context can help to create a distinct character for the place. A clear strategy for street furniture needs to be developed.



SIGNAGES AND DIGITAL INFORMATION

Signage for both vehicles and pedestrians are equally important. Signages help in making the place more legible to the user. Creative but simple signages can make the place fun as well as informative. Public Advertisements and billboards should require careful design and placement so as not to hamper the quality of the public space. With the new technologies, signages and advertisements in the public realm can also be strategically utilized to provide valuable and important information.

LIGHTING

Lighting of public spaces help make them safer and encourage night time activities. Lighting of public spaces should be designed properly and can be integrated with street furniture, signages and public art. It creates attract public spaces at night. However, care must be taken so as not to create light pollution and disturb the neighborhood. A holistic lighting strategy for the urban area should be done to emphasise key areas. This will create night lighting of the skyline to be viewed while arriving to Kigali at night.



SAFETY & SENSE OF SECURITY

Good visibility and effective lighting create a sense of comfort in urban areas. Some of the key principles for developing safe and secure public area are:

- Design pathways & spaces for night time movement.
- Parking lots to be visible.
- Placement and protection of lighting.
- Ensuring natural surveillance and human visibility or formal surveillance.
- Minimizing conflict of vehicular, cyclists and pedestrians.
- Provide clear sight lines and avoid concealed and isolated routes.
- Close off areas of entrapment during off hours.
- Community Involvement in security.



Sensitive Building Interface

Attractive urban spaces consist of the public realm elements such as street lighting, furniture and public art. The buildings that frame spaces and form the interfaces between the public realm are equally important for identity and quality of places. Interfaces such as elevations, roof lines, corners, plinth levels and frontages are important elements for a good place.

Building Interfaces

In creating distinct places, it is also essential to give attention to the details of the building interfaces that interact with the public realm. The interface elements can provide charming results and add value to the place, or conversely could degrade the quality of the space. The application of the interface and the approach can vary with the place, area and needs, and has to be managed in context to the place. Of the many elements some of the key elements which need to be managed are:

- The Edges
- Active Frontage
- Scale and Height



THE EDGES

The building edge is defined by the setback as per the zoning regulations or urban design guidelines. Sensitive used in context to the surrounding, the building edges also define the public realm.

KEY URBAN AREAS

At key locations such as corner buildings at the Gisimenti Gateway, buildings are required to come to the street line so as to create a clear and continuous edge. Arcades are also provided at the edge to create better interaction with the public realm. Small setbacks without fences can allow for spill out areas for cafes and shops. The roof line and the plinth level can also help to accentuate the edge and continuity. In corners, the edges can be accentuated through special design to create markers which help in way finding.

RESIDENTIAL & NEIGHBORHOOD AREAS:

In areas that don't require active street edges, the buildings can be setback and fences are allowed. However to make the streets more friendly and safer, the resultant spaces must be used for landscaping and provide facades that are attractive and not blank walls.



FRONTING PUBLIC OPEN SPACES

Buildings edging public open spaces need to interact and front the open spaces. Such buildings normally have higher value due to the frontage to open spaces.

ACTIVE FRONTAGE

In areas demarcated for active frontage the buildings can interact with the public realm through both its elevation as well as its usage.

Some of the steps to creating an active frontage are:

- Interact with the street by providing pedestrian entrances and fenestrations along the frontage.
- Enlivening the frontage by providing canopies and balconies.
- Matching the plinth levels and heights for continuous arcades
- Providing retail and other activity generating uses in the ground floor.
- Spill out of activities into the designated areas of the public realm.



SCALE AND HEIGHT

Respecting the built context means enriching the built fabric. This could be achieved by:

- Stepping down of tall building's mass to meet its neighboring building's mass.
- Maintaining the building line.
- Designing with the slope.
- Making human scale at street level.
- Maintaining the street's scale and rhythm.

These however should not be a limitation to the creativity and diversity in buildings. Architectural variety can help to create a rich urban realm. A sensitive approach to developing the built environment can generate places with character and local identity.



Image Source: Google Images



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