

KPDA CEO BREAKFAST FORUM, TUESDAY 16<sup>TH</sup> OCTOBER 2018 AT THE VILLA ROSA KEMPINSKI HOTEL,  
WESTLANDS - NAIROBI

THEME: 'MANAGING AND PLANNING INFRASTRUCTURE COSTS'

**PROUDLY SPONSORED BY:**



**PROGRAM**

MASTER OF CEREMONY: GIKONYO GITONGA

- |                 |  |
|-----------------|--|
| 7.15am - 7.45am | Arrival and Registration   |
| 7.50am - 8.00am | Welcome and introductions<br>MC, KPDA  |
| 8.05am - 8.25am | 'Managing and Planning Infrastructure Costs'<br>Presentation by Ms. Inutu Zaloumis, Managing Director - Two Rivers Development Ltd   |
| 8.25am - 8.40am | 'Earmarking the Hidden Cost of Infrastructure in Property Development'<br>Presentation by Arthur Adeya, Managing Director - Athena Properties Ltd                            |
| 8.40am - 8.50am | 'Policies Governing Infrastructure Provision'<br>Presentation by Eng. Abdulrashid Mohamed, Ag. Director Policy, Strategy and Compliance - Kenya Urban Roads Authority (KURA) |

NETWORKING HEALTH BREAK

- |                 |  |
|-----------------|--|
| 9.00am - 9.45am | <p>Panel Discussion</p> <p><b>Moderator: Aryn Mussa</b></p> <ul style="list-style-type: none"> <li>- Two Rivers Development Ltd - <i>Inutu Zaloumis, Managing Director</i></li> <li>- Athena Properties Ltd - <i>Arthur Adeya, Managing Director</i></li> <li>- MaceYMR - <i>Gregory Murunga Chekata, Associate Director</i></li> <li>- Boogertman+Partners - <i>Andrew Kilonzi, Director and Project Architect</i></li> <li>- Kenya Urban Roads Authority (KURA) - <i>Eng. Abdulrashid Mohamed, Ag. Director Policy, Strategy and Compliance</i></li> </ul> |
| 10.00am         | <p>Way Forward</p> <p><b>KPDA</b></p> <p>Vote of Thanks and Departure</p>  |

**Mrs. Inutu Zaloumis-Kalumba**  
Managing Director – Two Rivers Development Ltd



Mrs. Inutu Zaloumis-Kalumba joined Centum in January 2018 as the MD of Two Rivers. Inutu responsible for the successful delivery of Two Rivers Development as a mixed- use development complimenting the city of Nairobi. Under her mandate, she oversees Two Rivers Lifestyle Centre (Two Rivers Mall and Office Towers), Two Rivers Utility companies as well as the engagement with Joint Venture partners, third party developers to ensure a successful delivery of the vision of the Two Rivers City.

Prior to joining Centum, Inutu was the Co- founder and Managing Director in Pam Golding Properties Zambia, a franchise of Pam Golding Properties Group. She has held this position since the establishment of Pam Golding Properties Zambia in 2008. Under her leadership Pam Golding Properties has grown to become the leading real estate services company in Zambia. She has 17 years' experience in the property market ranging from commercial, residential, retail property as well as consulting for and on behalf of property development companies. Inutu has a Bachelor's Degree in Business Administration from Copperbelt University and is currently pursuing a Master's in Business Administration at the African Leadership University.

She is a member of the Zambia Institute of Estate Agents, a founder member of the Zambia Green Building Council, a member of the Archdiocese of Lusaka, Finance Advisory Committee, part of the management Team of Leonard Cheshire Homes Society, a Mara mentor an initiative under the Atlas Mara Mentorship Programme, she is also a member and Working Group Member of The Africa List (the top 100 influential leaders in Africa), an initiative by the Commonwealth Development Programme.

This year, 2018, Inutu was named one of the Top 10 Influential Business Women in Zambia by Zambia's Business Times publication and awarded by the Pam Golding Property Group for 10 years of Excellence in Leadership.

**CONTACT INUTU ON:**

[i.zaloumis@tworivers.co.ke](mailto:i.zaloumis@tworivers.co.ke)



**AFRICAN  
PROPERTY  
AWARDS**  
DEVELOPMENT

in association with

**The Telegraph**

**HIGHLY  
COMMENDED**

MIXED-USE  
DEVELOPMENT  
KENYA

Two Rivers Development  
by Athena Properties  
Limited

2016-2017



**MANAGING AND PLANNING INFRASTRUCTURE  
COSTS”**



# Kenya's Vision 2030

## Three Key Pillars

Transform Kenya into a new industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment

### Economic

Improve the prosperity of all regions of the country and all Kenyans by achieving 10% Gross Domestic Product (GDP) growth rate per annum

### Social

Invest in the people of Kenya and improve the quality of life for all Kenyans through human and social welfare projects & programs

### Political Governance

Move to the future as one nation with a democratic system that is issue-based, people-centered, results-oriented & accountable to the public

## Enablers & Macro – The Foundations of Vision 2030

Deploy world class infrastructure facilities and services

(Macroeconomic, Infrastructure, Energy, Science, Technology and Innovation (STI), Land Reform, Human Resources Development, Security, and Public Sector Reforms)

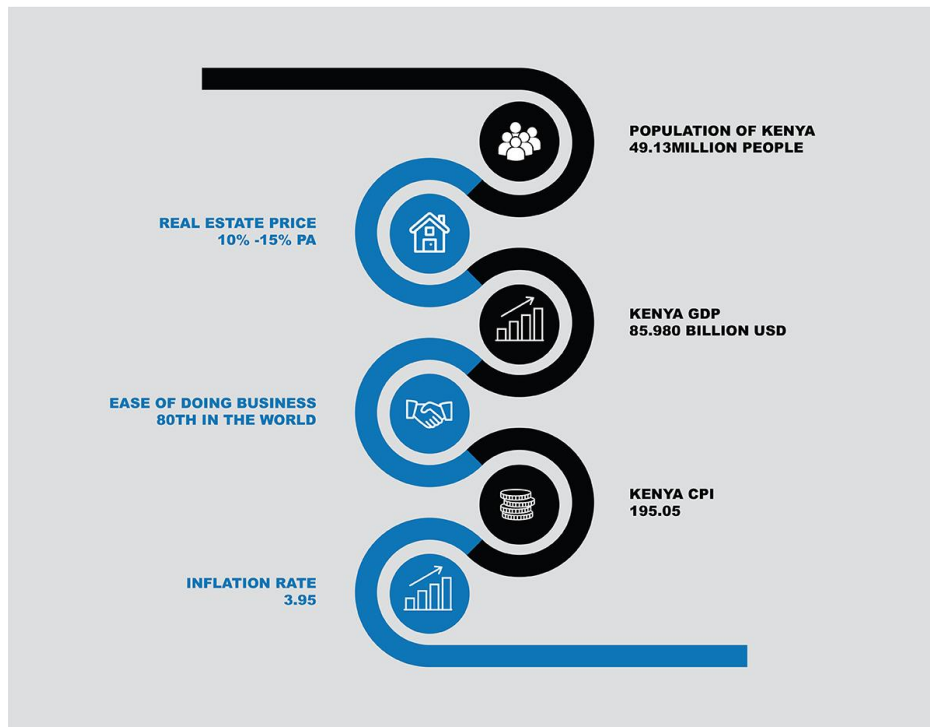
# Kenya's Vision 2030

*Working "Towards a globally competitive and prosperous nation" (Vision 2030 Motto)*

Kenya is redefining its infrastructure strategy and, committed to invest over USD 20 billion towards infrastructure development that includes upgrade of its local ports and international airports aimed at improving its regional and international connectivity.

## 2017 STATUS

### KENYA



- ❖ Kenya is poised to be at the forefront of investment in Africa. Its economy is incomparable to that of its neighbours in East and Central Africa at an estimate of USD 77.1 million according to the African Development Bank, positioning it as the economic hub for the region.
- ❖ Home to 49.13 million people which is growing at 3% per annum, spread over 580,000 sq. km. area, coupled with an urban population estimated at 26% of the total population creates strong growth potential.
- ❖ An emerging middle class and population growth rate of 3% per annum, a trend that is forecasted to continue in the long term provides for a growing consumer market for goods and products across all classes of society.

# Nairobi's Vision 2030

## The Vision of Nairobi is to be a world class African metropolis by 2030.

It will strive to create a world class working environment with a wide range of jobs, transport options and communication infrastructure. It is a vision of a world class living environment with modern housing, healthcare, cultural amenities and recreational facilities. Nairobi intends to provide high-quality office, production and storage space supported by a full range of ancillary services and information infrastructure.

### NAIROBI



- ❖ The Nairobi 2030 plan intends to achieve its vision through a range of integrated initiatives that address the challenges that currently hinder urban development and social progress.
- ❖ The city also plans on investing heavily in building modern municipal infrastructure to improve access to electric, water delivery and sanitation utilities across the entire metropolitan region.
- ❖ In addition to providing basic access to these utilities, the plan also stresses the importance of improving access to information and communication technology networks that support business, government, education and literacy.

# Two Rivers Development Limited

## *Vision 2030 Flagship Project Status*

Our Vision: To create a metropolis - a city within a city. An eco-friendly city in the heart of Nairobi, now regarded as East Africa's Commercial Centre

Two Rivers is a master planned mixed urban node set on 102 acres within the Diplomatic Blue Zone of Gigiri, Nairobi.

### Urban Node



- ❖ Given the constraint on well planned & developed space in Nairobi, Two Rivers offers an opportunity to develop a new urban node with reliable & sustainable infrastructure.
- ❖ We provide construction ready sites for investors in an environment with world- class infrastructure, best in class development guidelines and urban management services.

### Scale



- ❖ Spanning on 102 acres, Two Rivers represents 41% of the CBD; with 56% of it's land dedicated to infrastructure, green areas, and riparian reserve.
- ❖ The overall development has 1.5 million square meters of developable bulk.

# How we are delivering the city

## Two Rivers Development Continuum

Strategic Focus: Development of master-planned urban nodes with world class infrastructure that offers investors construction ready sites

Development process that creates value for all stakeholders

✓  
Acquisition of land in strategic locations



Two Rivers is an urban situated on **102 acres**, roughly 41% of the current Nairobi Central Business District (CBS).

✓  
Master plan development and obtain approvals



A master plan comprising: Retail, commercial, residential, hotel & hospital use

✓  
Develop infrastructure and select in fill developments



Invested in various infrastructure components: power, water, sewer, roads & circulation, security  
Attracted 3<sup>rd</sup> party capital at Two Rivers (Master developer) & Two Rivers Lifestyle Centre (Mall)

✓  
Avail construction ready site to investors



Currently home to **3 developers**: City Lodge, Two Rivers Mall & Victoria Commercial Bank



# Offering Developers World Class Infrastructure

The pillars in developing world class infrastructure are as outlined



# Offering Developers World Class Infrastructure

## *Elaborate Road Network*



- Two Rivers Development Limited (TRDL) entered into a public-private partnership (PPP) with the Kenya National Highways Authority (KENHA) and Kenya Urban Roads Authority (KURA) to construct dual carriage-way interchanges on Limuru Road and the Northern By-Pass to provide dedicated access to the Two Rivers Mall.
- TRDL invested over **KES 500 million** to construct the Limuru Road and Northern By-Pass interchanges.
- Both interchanges included an on-grade traffic round-about, two 600m long slip roads, street lighting, footpaths, bus-stops, drainage channels, landscaping, urban furniture, among others.
- Elaborate internal road network with wide roads, jogging and cycling paths

# Offering Developers World Class Infrastructure

## *Water Infrastructure*

Two Rivers Water & Sewerage Company is responsible for the distribution of water within the development and owns the water & sewer treatment infrastructure.



- ❖ Tariffs are regulated by Nairobi Water & Sewerage Company. Provides bulk and internal reticulation of water and sanitation services.
- ❖ Includes the region's largest reverse osmosis water treatment plant with capacity to treat 2 million litres of water per day
- ❖ Reduces the daily raw water consumption by ~70%
- ❖ ~80% of gray water is recycled and treated to World Health Organisation standards

# Offering Developers World Class Infrastructure

## *Power Infrastructure*

Two Rivers Power Company is responsible for the distribution of electricity and power supply within the development and owns the substation infrastructure.



- ❖ Tariffs are regulated by the Energy Regulatory Commission.
- ❖ It provides electrical reticulation & distribution, by purchase of electricity from Kenya Power and Lights Company (KPLC).
- ❖ It supplies power to the development, with the following infrastructure;
  - 23MVA Substation with 66kV stable main supply line
  - 66kV power is stepped down to 11kV for distribution to each plot in the development
  - A secondary supply line of 1.5 MVA (11kV/415V) also supplies each plot in the development as a back-up line
  - 1.2 MW solar PV plant that supplies Two Rivers Mall with renewable energy
  - 3 x 2.5 MVA diesel generators for the key infrastructure components of the development i.e. water plant, security centre, street lights.

# Offering Developers World Class Infrastructure

## ICT Infrastructure

The first destination in East and Central Africa designed as a smart city



- ❖ GPON ring delivering over 20Gbps bandwidth speeds within the infrastructure
- ❖ Triple play connection running over single broadband to deliver internet, IPTV and Fixed telephony to tenants and residents.
- ❖ 4G Hotspot: Improved LTE network offering (3G/4G) from all service providers.
- ❖ WIFI coverage
- ❖ TR Mobile App: A functional and user-focused mobile application to help with mobility & integration around the destination
- ❖ Data Center: Tier 4 ready data center offering community cloud and data hosting

# Offering Developers World Class Infrastructure

## Ultra-Modern Security Infrastructure



Limuru Road Gatehouse



Security Operations Center

Features	Description
Screening Systems	Handheld Explosive Trace Detectors Walkthrough Detectors Under Vehicle Surveillance System
Automatic Number-plate Recognition System	License Plate Recognition Cameras
Surveillance Equipment	Advanced Tracking Technologies
Access Control	Card and Biometric Readers Field Devices
Physical Barriers	Riser Arms and Bollards

- ❖ Two Rivers' security solution employs IBM's Intelligent Operation Centre (IOC) at its core that ties all of the other sub-systems together
- ❖ Under vehicle surveillance
- ❖ Number plate recognition
- ❖ Explosive trace detectors
- ❖ Over 300 surveillance cameras within the Mall alone
- ❖ State of the Art Gate House

# Offering Developers World Class Infrastructure

## *Infrastructure and Urban Management*

Two Rivers Property company was formed with the mandate to manage all operations for the development and serve as the association for all developers within Two Rivers.

The company manages all infrastructure assets Infrastructure Levy and manage day to day operations through the Urban Management Levy.



# Building Public Infrastructure

## *New Mathari School*



- In 2017, Centum's Two Rivers Development Ltd, ICDC and Catic Kenya in collaboration with Nairobi City County undertook a massive CSI project to rebuild Old Mathari Primary School at a cost of **over KES 180 million**.
- The facilities in the newly built school includes 32 classrooms in G+1 blocks, administration block, library, science and computer labs, social hall, kitchen, dining area, walkways, awnings open spaces and interaction points, among others.
- The project increased the capacity of the school from 8 to 32 classrooms resulting in an increased capacity from 994 students to 1,920 students.
- It also created employment opportunities for 18 new teachers due to the increased number of students.





**Two Rivers Development Limited**  
9th Floor,  
Southern Tower,  
Two Rivers Mall  
Limuru Road,  
Nairobi



**TWO**  
RIVERS

# **Mr. Arthur Adeya**

## **Managing Director – Athena Properties Ltd**



Arthur Adeya is an Architect by profession with over a decade's experience in Architecture and over 7 years' experience in Master Planning and Landscape Architecture. He is now the Acting Managing Director at Athena Properties Ltd.

Prior to joining Athena as a Director for Planning and Design, Arthur was a Principal Partner at Lexicon + ion In charge of Master Planning, Landscape Architecture and Urban Design working with external teams to ensure projects are launched on firm planning principals, uphold environmental sustainability and are situated in well-designed landscapes.

He previously worked in the USA with The HOK Planning Group in Washington DC and EDSA Inc. in Fort Lauderdale, Florida where he was involved in several large master planning and urban design Projects in Tunisia, Abu Dhabi and Dubai.

Arthur holds a B.Arch. and master's in landscape architecture. He is a Registered Architect both in Kenya and USA and is a LEED Accredited Professional.

Arthur is known for his Charismatic Leadership and out of the box conceptualization of large spaces. The ability to master plan self-sustainable spaces that integrate the planner's vision into the larger societal context.

**CONTACT ARTHUR ON:**

[aadeya@gmail.com](mailto:aadeya@gmail.com)



**TWO  
RIVERS**



**AFRICAN  
PROPERTY  
AWARDS**  
DEVELOPMENT

in association with

**The Telegraph**

**HIGHLY  
COMMENDED**

MIXED-USE  
DEVELOPMENT  
KENYA

Two Rivers Development  
by Athena Properties  
Limited

**2016-2017**

**CATALOGUE OF INVESTMENT  
OPPORTUNITIES**



# Table of Content

---

**Section 1: Introduction**

Section 2: Master Plan & Phase 1

Section 3: Support Infrastructure

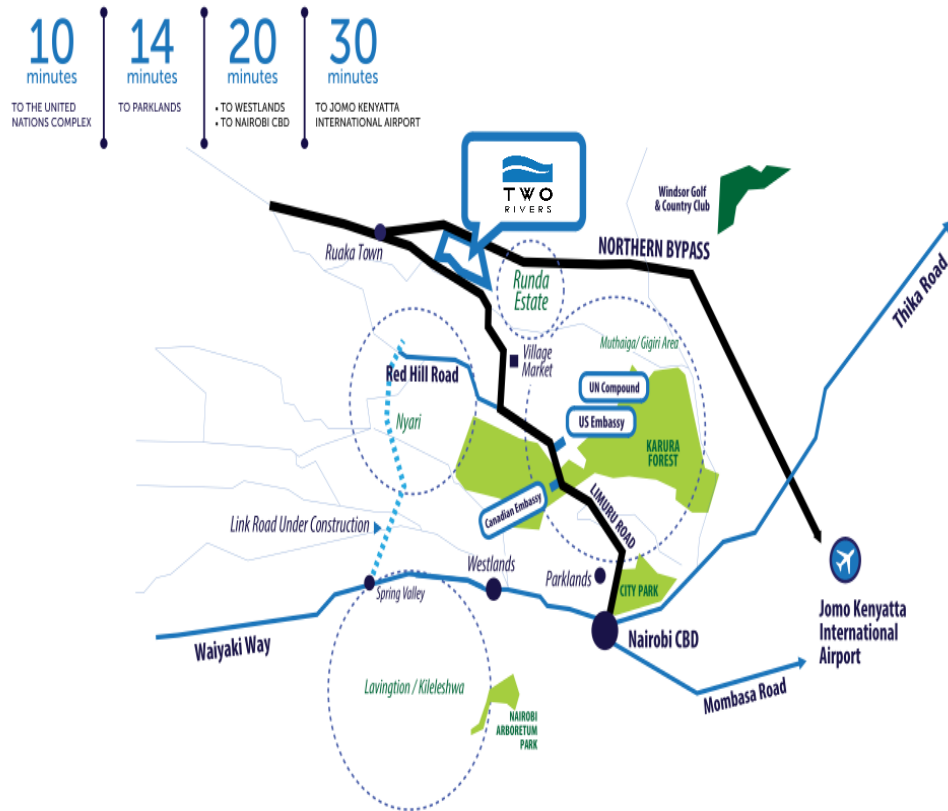
Section 4: Two Rivers Investors

Section 5: Rental Yields Comparables

Section 6: Statutory and Compliance Advantages

Section 7: Conclusion

# Introduction to Two Rivers



- Two Rivers is a Kenya Vision 2030 flagship project set on prime 102 acre master planned precinct within Diplomatic Blue Zone of Gigiri, Nairobi
- The project integrates a retail, entertainment and lifestyle centre, Grade A offices, 3 and 5 star hotels, conferencing facilities, a residential offering and medical facilities
- Phase 1 (A) of the development is now operational and home to Two Rivers Mall, the largest mall in Sub-Saharan Africa outside of South Africa in operations

# Vision- Two Rivers Development

## Urban Node



Given the constraint on well planned & developed space in Nairobi, Two Rivers offers an opportunity to develop a new urban node with reliable & sustainable infrastructure.

Our aim is to provide construction ready sites for investors in an environment with world- class infrastructure, best in class development guidelines and urban management services.

This will overall create a residential, commercial & hospitality critical mass that will spur the development. |

## Scale



Nairobi's Central business District (CBD) is located on approximately 250 acres, We have 106 acres available for development representing an area of 42% of the CBD.

# Table of Content

---

Section 1: Introduction

**Section 2: Master Plan & Phase 1**

Section 3: Support Infrastructure

Section 4: Two Rivers Investors

Section 5: Rental Yields Comparables

Section 6: Statutory and Compliance Advantages

Section 7: Conclusion

# Development Plan



## Legend

- Social and Institutional
- Proposed Road
- Commercial
- Medium Density Residential
- Recreational
- High Density Residential
- Hospital
- Public Utility

## Available Plots for Sale or Development

Plot Number	Area (Acres)	Plot Ratio (P.R)	Ground Bulk (Ground Bulk Area)	Land Use
2	4.65	8.0	150,548.40	Office
3	2.68	8.0	86,767.68	Office
4	2.1	8.0	67,989.60	Mixed- use
5	0.85	8.0	27,519.60	Office
6	0.64	3.0	7,770.24	Office
8	1.99	7.0	56,374.71	Residential
9	1.762	7.0	49,915.70	Residential
11	0.7	7.0	19,830.30	Office/ Social
12	1.48	7.0	41,926.92	Hotel
13	1.35	7.0	38,244.15	Residential
15	0.83	8.0	26,872.08	Mixed-use
16	4.32	7.0	122,381.28	Social
17	0.73	8.0	23,634.48	Commercial/ Mixed-use
19	1.06	8.0	34,318.56	Commercial/ Mixed-use

Detailed information available upon request



# Key Progress Milestone

2011

Centum acquires 102 acres of land in the diplomatic blue zone in Runda/Gigiri

*Centum undertakes project development activities on Two Rivers Development Limited (TRDL), including*

- *Development feasibility studies*
- *Masterplanning and zoning*
- *Seeking statutory approvals*
- *Contractor appointment*
- *Groundbreaking on infrastructure and mall*
- *Secured Carrefour as anchor tenant*
- *Victoria and City Lodge acquires development rights*

2014

AVIC and ICDC invest USD 70mn and USD 5mn for a 39% and 3% stake respectively in TRDL

- *Centum leads construction of Two Rivers Lifestyle Centre (TRL) and supporting infrastructure*
- *Acquire more tenants*
- *Project finance debt of USD 80mn secured for TRLC*

2016

Old Mutual invests USD 63 mn for 50% stake in TRLC

2017

Two Rivers Development launch and inception of Phase 2 projects & investment opportunities



*President Uhuru Kenyatta officially opened Two Rivers Mall in February 2017*



# Phase 1 Precinct

- Phase 1 of the development is set on 55 acres and includes:
  - Retail, Entertainment and Lifestyle Centre (Two Rivers Mall)
  - Two office towers
  - Outdoor riverfront entertainment area
  - Trunk infrastructure, including roads, water, power, ICT and security
  - 3 Star Hotel (City Lodge)
  - Commercial Office Block (Victoria Bank)
  - Amphitheatre (construction underway)
  - Parking silo (to be constructed)
  - Five star hotel and branded serviced apartments (to be constructed)
  - Apartments (to be constructed)



**Theme Park**  
*55-meter Ferris Wheel  
17 meter drop tower  
Airborne shot drop  
GP Karting*



**City Lodge Hotel**  
*170 key hotel opening soon*



**Conference Dome**  
*3,600 seater dome*



**Victoria Commercial Bank**  
*14,500 sqm Grade A office*

# Two Rivers Mall



- The anchor of the development is Two Rivers Mall, the largest mall in East & Central Africa with leading international retailers as tenants
- It has approximately 200 retail stores, offering a mix of both global and local experiences.
- Two Rivers has two office towers that sit atop the mall with 9 and 8 floors each, providing 27,000 square metres of grade A office space
- The mall is the most visited destination in the region, attracting over 1.5 million visitors within the first three months of opening

# Table of Content

---

Section 1: Introduction

Section 2: Master Plan & Phase 1

**Section 3: Support Infrastructure**

Section 4: Two Rivers Investors

Section 5: Rental Yields Comparables

Section 6: Statutory and Compliance Advantages

Section 7: Conclusion

# Infrastructure

## Roads & Security

### Elaborate Road Network

- Two Rivers Development is the first private sector company to invest in an on grade separated interchange/underpass
- Accessibility is from 2 major roads with expanded entry/exit points which include a newly constructed underpass on Limuru Road and a roundabout on the Northern Bypass
- Elaborate internal road network with wide roads, jogging and cycling paths, street furniture
- State of the art Gate House complete with automated access control
- Ample parking space currently 2,500 parking bays



*Limuru Road Gatehouse*



*Security Operations Center*

### Ultra-Modern Security Systems

Features	Description
Screening Systems	Handheld Explosive Trace Detectors Walkthrough Detectors Under Vehicle Surveillance System
ANPR* System	License Plate Recognition Cameras
Surveillance Equipment	Advanced Tracking Technologies
Access Control	Card and Biometric Readers Field Devices
Physical Barriers	Riser Arms and Bollards

- Two Rivers' security solution employs IBM's Intelligent Operation Centre (IOC) at its core that ties all of the other sub-systems together
  - Allows the effortless unification of hundreds of independent systems for access control, surveillance, threat detection, screening alerts and communications into a single virtual system

# Infrastructure

## *Power & Water*

### Power

- Two Rivers Power Company, a licensed electricity distributor, supplies power to the development
  - A 23 MVA in-house power substation with two dedicated 66kv lines thus limiting the number of brown outs
  - A 7.5MW diesel generated power plant has also been installed
  - Rooftop solar panel in Africa, with a capacity of 2 MVA



### Water

- Two Rivers Water and Sanitation Company will cater for the development's water needs
  - Includes the region's largest reverse osmosis water treatment plant with capacity to treat 2 million litres of water per day
  - Reduces the daily raw water consumption by ~70%
  - ~80% of gray water will be recycled and treated to World Health Organisation standards



# Infrastructure

## ICT

- The first destination in East and Central Africa designed as a smart city featuring:
  - Data Center: Tier 4 ready data center offering community cloud and data hosting
  - GPON ring delivering over 20Gbps bandwidth speeds within the infrastructure
  - Triple play connection running over single broadband to deliver internet, IPTV and Fixed telephony to tenants and residents.
  - 4G Hotspot: Improved LTE network offering (3G/4G) from all service providers.
  - WIFI coverage
  - TR Mobile App: A functional and user-focused mobile application to help with mobility & integration around the destination



*Data Centre Location at Two Rivers*

# Table of Content

---

Section 1: Introduction

Section 2: Master Plan & Phase 1

Section 3: Support Infrastructure

**Section 4: Two Rivers Investors**

Section 5: Rental Yields Comparables

Section 6: Statutory and Compliance Advantages

Section 7: Conclusion



# Two Rivers Investors

---



58% equity stake



39% equity stake

<http://www.avic.com/en/>



3 % equity stake

<http://www.icdc.co.ke/>



Two Rivers Development Limited



# Table of Content

---

Section 1: Introduction

Section 2: Master Plan & Phase 1

Section 3: Support Infrastructure

Section 4: Two Rivers Investors

**Section 5: Rental Yields Comparables**

Section 6: Statutory and Compliance Advantages

Section 7: Conclusion

# Rental Yields Comparable: Office Developments

High Level Analysis	Two Rivers	Westlands	Upperhill	Parklands	Kilimani	CBD
GLA (SQM)	21,854	21,854	21,854	14,569	14,569	24,039
Efficiency at Floor Level	90%	90%	90%	90%	90%	90%
*Plot Ratio	6	6	6	4	4	7
Service Area GBA (Sqm)	24,282	24,282	24,282	16,188	16,188	26,710
Parking Ratio per 100 SQM of GLA	1.5	3.0	3.0	3.0	3.0	3.0
Number of Bays	328	656	656	437	437	721
Size of Bays (sqm)	38	38	38	38	38	38
Parking GBA (sqm)	12,457	24,913	24,913	16,609	16,609	27,405
Total GBA (sqm)	36,739	49,195	49,195	32,797	32,797	54,115
Top Build Construction Cost/ sqm(KES)	55,000	55,000	55,000	55,000	55,000	55,000
Soft Costs (% of construction cost)	15%	15%	15%	15%	15%	15%
Construction Costs (KES)	2,020,626,630	2,705,743,260	2,705,743,260	1,803,828,840	1,803,828,840	2,976,317,586
Land Cost (1 Acre)	364,230,000	500,000,000	550,000,000	400,000,000	365,000,000	800,000,000
Soft Costs (KES)	303,093,995	405,861,489	405,861,489	270,574,326	270,574,326	446,447,638
Total project cost (KES)	2,687,950,625	3,611,604,749	3,661,604,749	2,474,403,166	2,439,403,166	4,222,765,224
**Rent per SQFT	100	101	112	139	120	93
Rent per SQM	1,076	1,084	1,209	1,501	1,292	1,000
Annual Rent	282,281,164	284,205,013	316,997,899	262,343,089	225,906,549	288,577,398
<b>Rental Yield</b>	<b>11%</b>	<b>8%</b>	<b>9%</b>	<b>11%</b>	<b>9%</b>	<b>7%</b>

Source: \*Emerge Development Report 2018

\*\* Source: JLL Office Report 2018

# Rental Yields Comparable: Residential Developments

High Level Analysis	Two Rivers	Westlands	Upperhill	Parklands	Kilimani	Kileleshwa
GLA (Sqm)	19,426	19,426	19,426	12,950	12,950	12,950
Efficiency at Floor Level	80%	80%	80%	80%	80%	80%
Plot Ratio*	6	6	6	4	4	4
Service Area GBA (Sqm)	24,282	24,282	24,282	16,188	16,188	16,188
Parking Ratio per 100 SQM of GLA (sqm)	1.0	1.0	1.0	1.0	1.0	1.0
Number of Bays	194	194	194	130	130	130
Size of Bays	38	38	38	38	38	38
Parking GBA	7,382	7,382	7,382	4,921	4,921	4,921
Total GBA	31,664	31,664	31,664	21,109	21,109	21,109
<b>Cost Assumptions</b>						
Top Build Construction Cost/ sqm	55,000	55,000	55,000	55,000	55,000	55,000
Soft Costs	15%	15%	15%	15%	15%	15%
Land Cost/SQM	15,000					
Construction Costs	1,741,505,040	1,741,505,040	1,741,505,040	1,161,003,360	1,161,003,360	1,161,003,360
Land Cost	364,230,000	500,000,000	550,000,000	400,000,000	365,000,000	800,000,000
Soft Costs	261,225,756	261,225,756	261,225,756	174,150,504	174,150,504	174,150,504
Total project cost	2,366,960,796	2,502,730,796	2,552,730,796	1,735,153,864	1,700,153,864	2,135,153,864
Rent per SQFT**	58	59	55	60	58	58
Rent per SQM	624	636	593	641	621	629
Annual Rent	145,531,622	148,311,293	138,283,957	99,651,508	96,542,257	97,785,957
<b>Rental Yield</b>	<b>6%</b>	<b>6%</b>	<b>5%</b>	<b>6%</b>	<b>6%</b>	<b>5%</b>

Source: \*Emerge Development Report 2018

\*\* Cytonn Metropolitan Report 2018

# Table of Content

---

Section 1: Introduction

Section 2: Master Plan & Phase 1

Section 3: Support Infrastructure

Section 4: Two Rivers Investors

Section 5: Rental Yields Comparables

**Section 6: Statutory and Compliance Advantages**

Section 7: Conclusion

# Statutory Approvals and Compliance Advantages

## A. Planning/ Building Approvals

Approval	Approving Body	Standard Market Rate -Cost /Timelines KES	Two Rivers Standard
Master Plan Approval	NCC	2.1 -4 M	Done -Zero
Change of Use Approval	NCC	950,000-1.4 M	Done -Zero Architectural - Master plan with Bulk approved.

Approval	Approving Body	Standard Cost / Timelines	Two Rivers Standard
NEMA License	NEMA	45-90 Days  Rates KES 800,000-1.5 M	45 Days  NEMA done for entire development. Project Specific EIA to Ride on the Master EIA

# Statutory Approvals and Compliance Advantages

## C. Material Investigations and Surveys

Survey Type	Cost	Two Rivers Standard
Topo Cadastral	30 -60 Days KES 800,000-1.5M	Done Zero Cost
Traffic Survey	45-90 Days Consultant -1.2 M -1.8 M Kenha/Kura -150,000-300,000	Done Zero Cost
Geotechnical Survey -	500,000-1.2 M	200,000-800,000 Base Geotechnicals done. Project Specific to be undertaken.
Hydrological Survey	30-45 days Kes 300,000-750,000	Done. Water Provision by TRDL

# Statutory Approvals and Compliance Advantages

## D. Utility Connections

	Standard Cost/Timelines	Two Rivers Standard
Power	<ul style="list-style-type: none"> <li>3 Months Connection</li> <li>Rates -KPLC Rates</li> <li>Prone to Blackouts /Brownouts</li> <li>Need to secure solar installation approval/license -3-5 months</li> </ul>	<ul style="list-style-type: none"> <li>7 Days</li> <li>Rates -KPLC Rates</li> <li>Standby Generators -24/7 with a change-over time of 5 seconds</li> <li>Dedicated 66/11 KV substation</li> <li>License Awarded.</li> <li>Zero cost /time</li> </ul>
Water	<ul style="list-style-type: none"> <li>3-5 Months Connection</li> <li>Reliability : Water Rationing</li> <li>Water Quality : Chlorinated</li> <li>Application for Connection to sewer line /installation of septic tanks /use of exhauster services</li> <li>Need to drill boreholes</li> </ul>	<ul style="list-style-type: none"> <li>7 days Connection</li> <li>Reliability : 24/7 Access to portable water</li> <li>Water Quality: Use of Reverse Osmosis system.”Dasani water from tap “</li> <li>Connection to existing sewer treatment plant at no extra cost</li> <li>Existing boreholes with capacity of 2000 cubic meter / 2 Million liters per day .</li> </ul>
ICT	<ul style="list-style-type: none"> <li>Payment of Networking Fee</li> </ul>	<ul style="list-style-type: none"> <li>7-14 Days</li> <li>Plug and play to existing ICT Network (Safaricom )</li> </ul>
Data Security	<ul style="list-style-type: none"> <li>Source from Market</li> </ul>	<ul style="list-style-type: none"> <li>Tap to existing data center at Two Rivers</li> <li>Rates at 85 % of market rate</li> </ul>
Security	Security gate	CCTV Cameras Access Control Standby Ambulance Standby Fire Brigade Police Post with onsite police officers



# Table of Content

---

Section 1: Introduction

Section 2: Master Plan & Phase 1

Section 3: Support Infrastructure

Section 4: Two Rivers Investors

Section 5: Rental Yields Comparables

Section 6: Statutory and Compliance Advantages

**Section 7: Conclusion**

# Conclusion

---

- Holding construction costs and soft costs constant, Two Rivers has better yields for both office and residential developments.
- This is because of the higher plot ratio at Two Rivers Development coupled with a cheaper bulk selling price per square meter which results in a lower price per acre for land.



**TWO**  
RIVERS

**P.O. BOX 2-00627**  
**Off Limuru Road**  
**Northern Bypass**  
**Nairobi, Kenya**

**T:**  
**W:**  
**E:**

**TO BE**

**TRUE**

## **Eng. Abdulrashid Mohamed**

### **Ag. Director of Policy Strategy and Compliance – Kenya Urban Roads Authority (KURA)**



The Kenya Urban Roads Authority (KURA) is a State Corporation under the Ministry of Transport and Infrastructure established by the Kenya Roads Act, 2007 with the core mandate of Management, Development, Rehabilitation and Maintenance of National urban trunk roads. Some other functions of KURA include;

- Constructing, upgrading, rehabilitating and maintaining roads under its control;
- Controlling urban roads reserves and access to roadside developments;
- Implementing road policies in relation to urban roads;
- Ensuring adherence by motorists to the rules and guidelines on axle load control prescribed under the Traffic Act CAP 403 and any regulations under the Act;
- Ensuring that the quality of road works is in accordance with such standards as may be defined by the Cabinet Secretary;
- In collaboration with the Ministry responsible for transport and the Police Department, oversee the management of traffic and road safety on urban roads;
- Monitoring and evaluating the use of urban roads;

Eng. Abdulrashid is the Ag. Director of Policy, Strategy and Compliance.

**CONTACT ENG. MOHAMED ON:**

[asmohamed@kura.go.ke](mailto:asmohamed@kura.go.ke)



# KENYA URBAN ROADS AUTHORITY

**TOPIC: BREAKFAST FORUM ON MANAGING AND PLANNING**

**INFRASTRUCTURE COSTS**

*The case of Kenya Urban Roads Authority*

*Presented by the Eng. Abdulrashid S. Mohamed*

*On 16<sup>th</sup> October, 2018*



# Mandate, Vision & Mission



## **Establishment of KURA**

Kenya Urban Roads Authority (KURA) is a state corporation formed under the Ministry of Transport, Infrastructure, Housing and Urban Development created under the Kenya Roads Act, 2007.

## **Mandate**

Management, Development, Rehabilitation and Maintenance of Urban National Trunk Roads.



# Mandate, Vision & Mission



## **Vision**

To be a global leader in the provision and management of urban national trunk road network.

## **Mission**

To professionally provide quality, safe and adequate urban national trunk road network that satisfies stakeholder needs.



## Urban Road Network

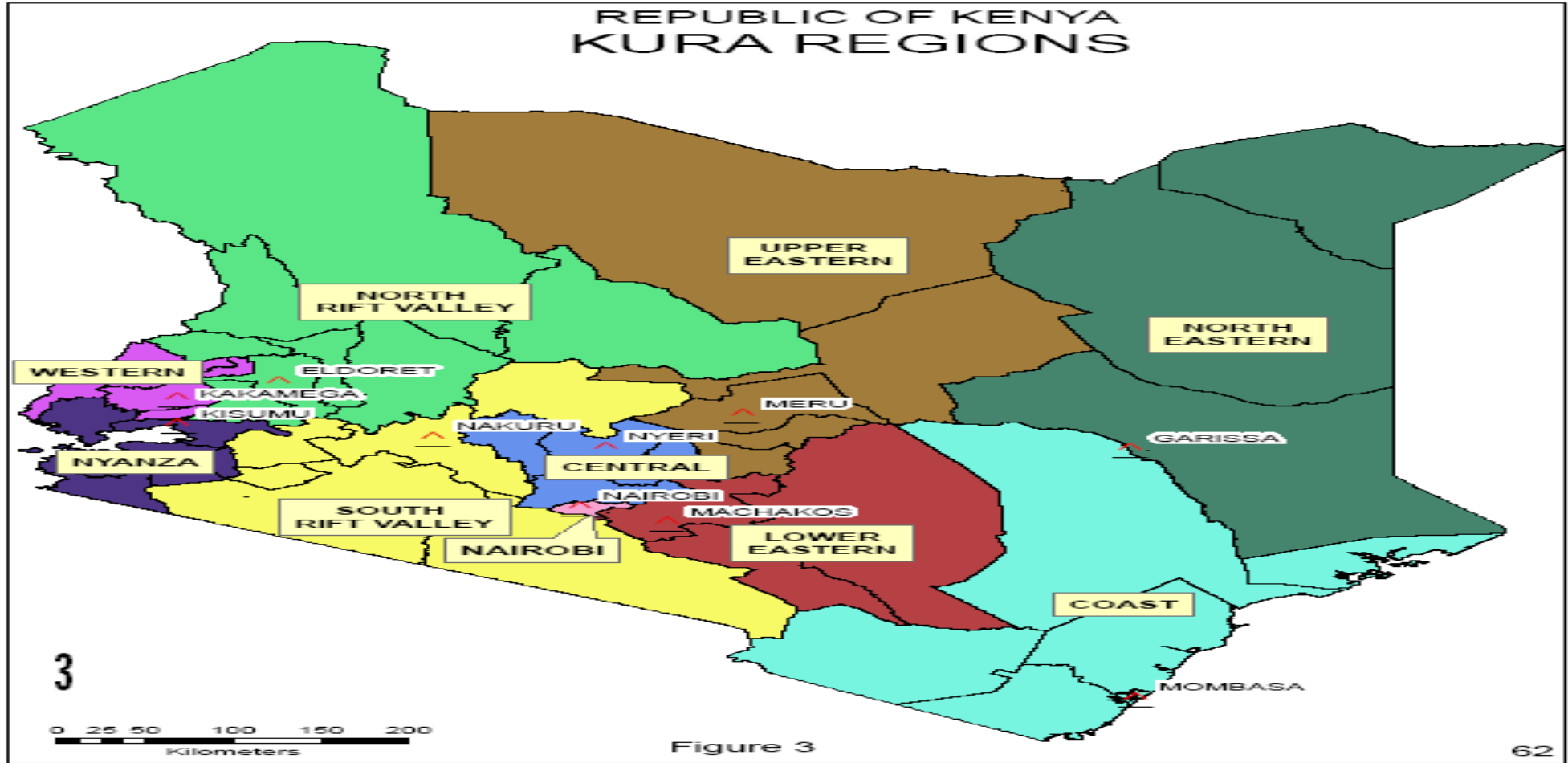
KURA manages approximately **5,364km** comprising; classified urban roads based on the Gazetted Road Register, bypasses, roads in Resort Cities, roads agreed with some Counties and roads under LVSUR program as tabulated below:

S/No.	Description	Length (km)
1.	Paved (km)	742
2.	Unpaved (km)	3,622
3.	Bypasses in major towns (km) ~ Unpaved	500
4.	Resort Cities and Economic zones (km) – Unpaved	500
	<b>TOTAL</b>	<b>5,364</b>





# KURA's REGIONAL OFFICES





# Development of new urban road networks in Kenya



## Funding:

### a. GOK Funding Through The Exchequer Grants From Development Partners.

- Government of Japan Kshs1.9 Billion for western Ring Roads, Kshs 2.1 billion for Ngong Road phase 1 and Kshs. 2.0 billion Ngong Road Phase 2, Kshs.4.5 billion grant from European union for eastern missing links

### b. Loans From Deployment Partners

- African development bank (Kshs10.4 billion for expansion of outer ring Road)
- World Bank (National Urban Transport Improvement Project (NUTRIP), Kshs 2.4 billion for Meru Bypass)



## Funding cont...

### **c. Public Private Partnerships**

- 2nd Nyali Bridge

### **d. Annuity Programme:**

- Lot 15 (Western Region~ 35km)
- Lot 18 (central Region –45Km)

### **e. Low Volume Seal Urban Road Programme**



# Policies Governing Provision of Infrastructure

Article 10 of the Constitution of Kenya, 2010 sets the broad principles

## Land Policies

S/No	Policy Name	Objective / Scope
1	Session No. 1 of 2017 on National Land Use Policy	<ul style="list-style-type: none"><li>To provide legal, administrative, institutional and technological framework for optimal utilization and productivity of land related resources in a sustainable and desirable manner at national, county and community levels.</li></ul>
2	Land Acquisition Act (Cap. 295)	<ul style="list-style-type: none"><li>Provides for the compulsory or otherwise acquisition of land from private ownership for the benefit of the general public</li></ul>
3	Physical planning act, 1999	<ul style="list-style-type: none"><li>provide for the preparation and implementation of physical development plans and for connected purposes</li></ul>
4	Land Adjudication Act Chapter 95	<ul style="list-style-type: none"><li>Provides for ascertainment of interests prior to land registration under the Registered Land Act</li></ul>



# Policies Governing Provision of Infrastructure cont...

## Roads and Transport Policies

S/No	Policy Name	Objective / Scope
1	Integrated National Transport Policy, 2009	<ul style="list-style-type: none"><li>• Aims to develop, operate and maintain an efficient, cost effective, safe, secure and integrated transport system that links the transport policy with other sectoral policies, in order to achieve national and international development objectives in a socially, economically and environmentally sustainable manner.</li></ul>
2	Policy On The Roads Sub-Sector	<ul style="list-style-type: none"><li>• Seeks to align Roads Sub-Sector to the Constitution of Kenya for an efficient and effective road network.</li><li>• Provides for a legal, institutional and administrative framework for the management of roads at the National and County level.</li><li>• The policy builds on Sessional paper No. 5 of 2006 on the Development and Management of the Roads Sub-Sector for Sustainable Economic Growth.</li></ul>



# Roads and Transport Policies cont...

S/No	Policy Name	Objective / Scope
3	The Kenya Roads Act, 2007	<ul style="list-style-type: none"><li>• Provides for the establishment of the Kenya National Highways Authority, the Kenya Urban Roads Authority and the Kenya Rural Roads Authority,</li><li>• Provide for the powers and functions of the authorities and for connected purposes.</li></ul>
4	Session Paper No. 1 of 2017 on the Non-Motorized Transport Policy	<ul style="list-style-type: none"><li>• Aims to develop and maintain a transport system that fully integrates Non-Motorized Transport (NMT) as part of the Nairobi transport system</li></ul>
5	Urban Areas and Cities Act, 2011	<ul style="list-style-type: none"><li>• Give effect to Article 184 of the Constitution;</li><li>• Provide for the, classification, governance and management of urban areas and cities;</li><li>• Provide for the criteria of establishing urban areas,</li><li>• Provide for the principle of governance and participation of residents and for connected purposes</li></ul>



# Roads and Transport Policies cont...

S/No	Policy Name	Objective / Scope
6	Public Roads and Roads of Access Act (Cap. 399)	• Provides for the dedication, conservation or alignment of public travel lines including construction of access roads adjacent to lands from the nearest part of a public road.
7	Traffic Act Chapter 403	• Provides Regulations on the Axle load limits and corresponding fines for violations
8	Standards Act Cap 496	• Provides standards on the requirements of equipment and project materials
9	Way Leave Act (Cap 292)	• Provides guidelines on the management of road reserve and corridor



# Policies Governing Provision of Infrastructure cont...



## Environmental Policies

S/No	Policy Name	Objective / Scope
1	National Environmental Policy, 2013	<ul style="list-style-type: none"><li>• The overall goal of the policy is better quality of life for present and future generations through sustainable management and use of the environment and natural resources.</li><li>• One of the objectives of the policy is to promote use of vital tools such as ESIA necessary to ensure environmental quality and resource productivity on long term basis.</li></ul>
2	The Environmental Management and Co-ordination Act, 1999.	<ul style="list-style-type: none"><li>• Provides for the establishment of an appropriate legal and institutional framework for the management of the environment and for matters connected therewith and incidental thereto</li></ul>





# Environmental Policies Cont...

S/No	Policy Name	Objective / Scope
3	The National Biodiversity Strategy and Action Plan, 2007	<ul style="list-style-type: none"><li>● To address the national and international undertakings elaborated in Article 6 of the Convention on Biological Diversity.</li><li>● A national framework of action to ensure that the present rate of biodiversity loss is reversed, and the present levels of biological resources are maintained at sustainable levels for posterity</li></ul>
4	Public Health Act Cap 232	<ul style="list-style-type: none"><li>● Makes provision for securing and maintaining health</li></ul>



# Policies on Cross-Cutting and Emerging Issues Cont...

S/No	Policy Name	Objective / Scope
1	Poverty Reduction Strategy Paper- 2nd (MTP), 2014	• seeks to build on the successes of the MPT1, including macroeconomic stability, the enactment of the Constitution 2010, infrastructure development, the growth of the services sector and improved access to education
2	Policy Statements and Guidelines on Mainstreaming Cross-Cutting Issues, 2013	• Guide mainstreaming of activities in order to enhance community participation, promote gender equity and equality, involve persons with disabilities, promote child rights and ensure that persons living with HIV/AIDS are encouraged to contribute to the roads sub-sector
3	National Occupational Safety and Health Policy, 2012	• Focuses on prevention and control of work-related accidents and diseases, compensation and rehabilitation of workers injured in the course of work and those who contract occupational diseases



## Resource Mobilization and Financing

S/No	Policy Name	Objective / Scope
1	The Public Finance Management Act, 2012	<ul style="list-style-type: none"><li>• Provides for the effective management of public finances by the national and county governments; the oversight responsibility of Parliament and county assemblies; the different responsibilities of government entities and other bodies.</li></ul>
2	Public Private Partnerships Act, 2013	<ul style="list-style-type: none"><li>• provide for the participation of the private sector in the financing, construction, development, operation, or maintenance of infrastructure or development projects of the Government through concessions or other contractual arrangements;</li><li>• Provides for the establishment of the institutions to regulate, monitor and supervise the implementation of project agreements on infrastructure or development projects</li></ul>
3	The Public Procurement and Asset Disposal Act, 2015	<ul style="list-style-type: none"><li>• Give effect to Article 227 of the Constitution;</li><li>• Provide procedures for efficient public procurement and for assets disposal by public entities.</li></ul>



# Management of Urban Roads



- ❖ Division of urban areas based on geographical areas- 10 regions across the country fully staffed and headed by regional deputy directors and headquarters in Nairobi
- ❖ Traffic management centre to manage traffic flows- 16 junctions under ITS as pilot – intelligent transportation systems not fully integrated
- ❖ Construction of bypasses for through traffic – Northern & Eastern Bypass, Greater Eastern Bypass, greater Southern Bypass, Southern Bypass
- ❖ Enforcement of axle load limits using mobile weigh bridges



## Management of urban roads cont...



- ❖ Traffic data collection on urban road network both manually and using automatic counters for purposes of planning and monitoring the urban road network
- ❖ Nairobi Roads Rapid Decongestion Programme – improvement of junctions and channelization of traffic movements~ quick wins approach.



# Role of Road Infrastructure In Development

Infrastructure is identified as a key enabler in:

- The realization of Kenya Vision 2030
- The implementation of the “Big Four” National Agenda
- Attainment of the Sustainable Development Goals (SDG)

## Infrastructure and Development

- Infrastructure supports development
- Development sustains infrastructure



## *Ongoing Construction of Siaya Road in Nakuru*





## Quality in the provision and management of urban road works

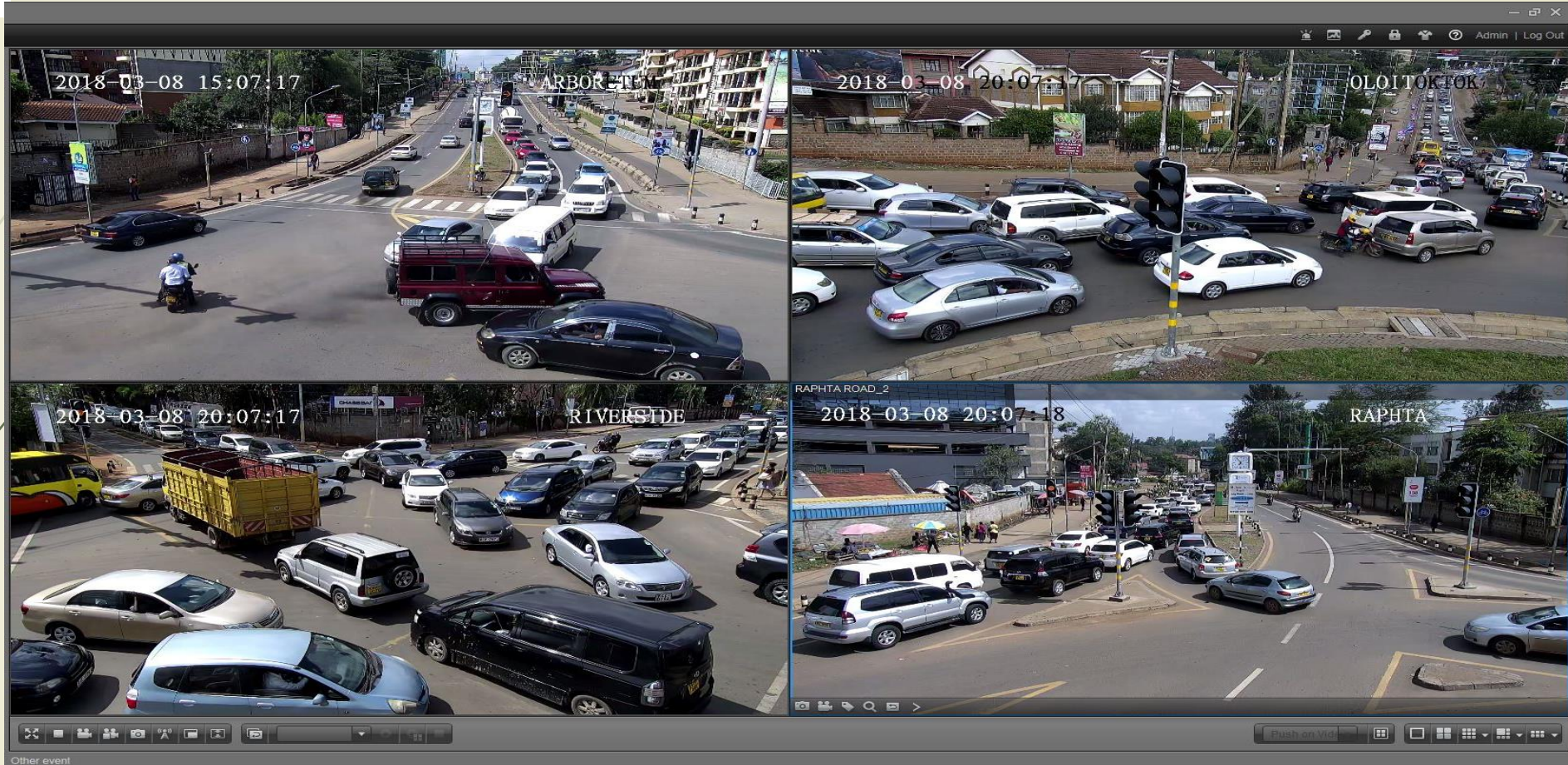


- ❖ Follow tested and approved quality urban roads guidelines (Road design Manual Part 2), outsourcing of quality designs from reputable consultancy firms, partnership with materials testing and research department for quality checks as well as own laboratories for routine checks for materials and works.
- ❖ Maintenance manuals and works supervision manuals developed with partnership of development partners- JICA
- ❖ KURA is ISO 9001: 2015 certified and therefore our quality management systems are internationally recognized.





# Quality in the provision and management of urban road works cont...



*ITS... Command Control Center for Nairobi Western ring Road under installation and testing at KURA HQs*



# Quality in the provision and management of urban road works cont...



*ITS... Command Control Center for Nairobi Western ring Road under installation and testing at KURA HQs*



## Safety in the provision and management of urban road works



- ❖ Construction of foot paths and foot bridges and standalone contracts for NMT of roads, proper signage, and road marking, speed arrestors and inventory of black spots in the road network, periodic safety audits of the urban road infrastructure and road designs, regular inspection of the roads
- ❖ KURA has full-fledged directorate for Social Safeguards with qualified environmental, social and safety officers.
- ❖ KURA has 8 No. Safety parks spread across the country for teachings on road safety (Kisii, Kakamega, Eldoret, Nairobi, Embu, Kisumu, Nyeri)



# Safety for pedestrians and motorists



*Ongoing installation of pedestrian footbridges and guard rails along Outer Ring Road*



## Safety for pedestrians and road users



*Sensitization of motorists on road safety campaign*



# Proposed BRT Lines



*Section of Outer Ring Road showing space left out for future BRT lanes*



## Maintenance of urban road network



- ❖ Sustainable funding of maintenance activities through Road Maintenance Levy fund
- ❖ Adoption of performance based maintenance to ensure certain defined levels of service
- ❖ Ten regions for maintenance of urban roads
- ❖ Road inventory and condition surveys



# Rehabilitation of road networks



*Ongoing Nairobi roads regeneration programme*





# Achievements of KURA in the provision and management of Urban Road network



Financial Year	Designs (KM)		New Construction (Lane KM)		Upgrading and Rehabilitation (Lane KM)		Bridges (No.)		Footpaths (KM)		Periodic Maintenance (Lane KM)		Routine Maintenance (Lane KM)	
	Targets	Achievements	Targets	Achievements	Targets	Achievements	Target	Achievements	Target	Achievement	Target	achievement	target	Achievement
2013/14	69	71.3	46.3	44.3	17.79	54.9	4	4	31.7	33.4	92	63.3	3113.1	1,088.4
2014/15	32.6	23.2	51	53.76	20.05	24.02	2	5	36.25	36.11	34.8	53.39	2364.4	3,445.24
2015/16	45.5	49.5	53.98	25.97	18.98	35.02	4	2	47.6	28.77	4.0	75.28	2925	2,928.5
2016/17	85.3	76	89	108.17	15.8	33.4	16	25	28	29.93	225.7	180.7	3171.3	3,119.56
<b>Total</b>	<b>232.4</b>	<b>340</b>	<b>240.28</b>	<b>354.4</b>	<b>72.62</b>	<b>335.42</b>	<b>26</b>	<b>36</b>	<b>143.55</b>	<b>288.81</b>	<b>356.5</b>	<b>863.63</b>	<b>11,573.8</b>	<b>19,595</b>



# Challenges to the provision of and management of quality and safe urban roads networks



- ❖ Encroachment on the road reserves the case of missing link no. 12 through Kibera, Taj mall on Outer Ring Road
- ❖ Relocation of services within the road reserve – power lines, Nairobi Water and other utility companies extending project completion dates – the case of EU Missing Links, Redhill Waiyaki Way Project, Ngong Road etc.
- ❖ Dumping of household waste/ solid waste on the roads



## Challenges to the provision of and management of quality and safe urban roads networks cont...



- ❖ Inadequate capacity of local contractors and consultants in the construction and design of roads
- ❖ Inadequate resources to fully undertake works – leading to implementation of works in several phases – the case of Ngong Road
- ❖ Inadequate research on alternative materials for road construction in the face of depleting material sources especially gravel



## Challenges to the provision of and management of quality and safe urban roads networks cont...



- ❖ Costly land acquisition – the case of Eastern Bypass (Kshs. 4Billion for City Cabanas Interchange alone which was half of the road construction cost)
- ❖ Low uptake of IT in the management of roads



THE END.....



**KENYA URBAN ROADS AUTHORITY**

*Efficient and safe urban roads*

**IKM PLACE, Bishops Road, Tel: 254-020-8013844**

**Email: [info@kura.go.ke](mailto:info@kura.go.ke) Web: [www.kura.go.ke](http://www.kura.go.ke)**

**P.O. Box 41727-00100, GPO, NAIROBI**

**Thank You**