

JOZI ROADS 2025

JRA MAGAZINE

The Battle Theft and Vandalism of Road Infrastructure

Exclusive
Abasebenzi, Meet
the People Behind
the Asphalt



a world class African city



**YOUR
RIDE
YOUR
CITY**
How You Can **Keep Moving!**

SPOTLIGHT On 7 Regions Road Works

Welcome to JoziRoads!

Johannesburg, the City of Gold, is a vibrant metropolis that thrives on its constant movement. This movement is impossible without the intricate road network crisscrossing our City. The Johannesburg Roads Agency (JRA) is the unsung hero behind keeping these roads in tip-top shape, ensuring a smoother, and safer journey for everyone.

JoziRoads, our brand new bi-annual magazine, is your one-stop shop for all things JRA!

We will be delving into the fascinating world of road maintenance, construction, and traffic management. Get ready to meet the passionate people behind the scenes, understand the complex processes involved in keeping our City on the move, and discover how you can play a part as a Johannesburg resident and road user.

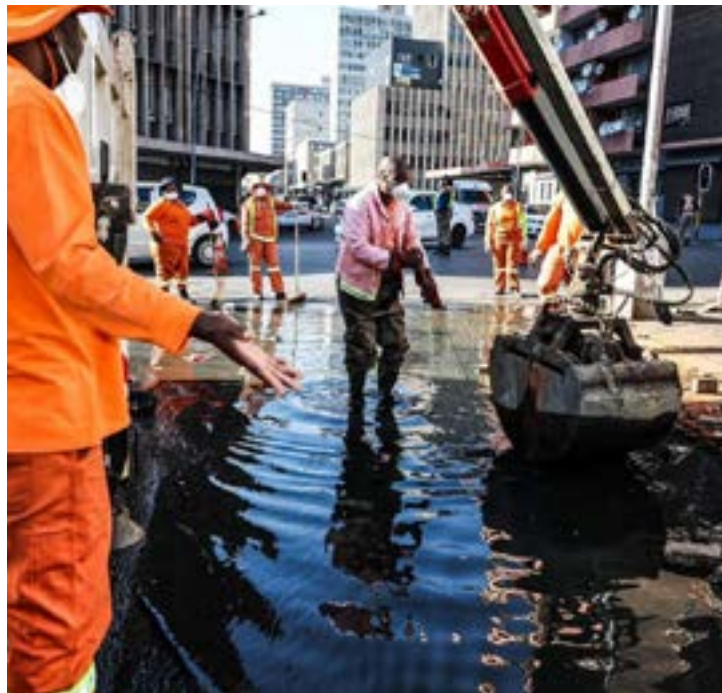
In this inaugural issue, we take you on a journey through the JRA's core functionalities. The following pages explore how the agency

plans, builds, and maintains our roads, ensuring they are safe and efficient for motorists, cyclists, pedestrians, and everyone in between. We also shed light on the JRA's commitment to innovation, exploring how we're utilising cutting-edge technology to optimise traffic flow and minimise congestion.

JoziRoads is more than just a magazine; it is a platform for open communication. We address your concerns, answer your questions, and provide valuable insights into road closures, construction projects, and upcoming initiatives.

So, buckle up Johannesburg! Let's navigate the exciting world of our City's road network together.

Greetings,
JRA Public Relations and Stakeholder Engagement Team



The JRA, owned by the City of Johannesburg (CoJ), is mandated with planning, designing, constructing, and maintaining the City's road and related infrastructure.

Our Vision
To be the best City Roads Authority that enables economic growth and sustainability.

Our Mission
We commit to providing quality roads that are accessible and livable for our communities.

Contributors

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Contents



03
**A CEO's Roadmap:
The Future of
Joburg's Roads**



04
**MMC In The Driver's Seat:
The Crucial Role of Jozi's
Transport Sector in
Driving Economic Growth**



05
**Win-Win as Partnerships
Power Traffic Signals during
power outages**



07
**The Battle against Theft and
Vandalism of Road
Infrastructure**



09
**Road Works Spotlight:
Seven Regions**



23
**Road Abasebenzi:
The People behind
the Asphalt**



29
**Your Ride, Your City:
How You Can Keep Moving**



31
**Ask a JRA Expert:
Your Questions Answered**



33
Lifestyle Feature

A CEO's Roadmap: The Future of Joburg's Roads

I extend greetings and a warm welcome to JRA's inaugural magazine, *JoziRoads*. This platform aims to foster open communication between JRA and the City's residents, providing regular updates and facilitating engagement on important issues.

During Transport Month 2024, JRA participated in the sixth annual **Smarter Mobility Africa Summit**, where I participated in a roundtable discussion on "Solutions for Preventing Road Crashes & Universally Accessible Streets." I highlighted how JRA is harnessing private sector partnerships in support of service delivery and our commitment to investing in infrastructure upgrades, implementing innovative technologies, and promoting community-led initiatives to improve road safety and accessibility for all.

View the Smarter Mobility Africa Summit here:
<https://www.facebook.com/share/v/T8VoEc8pbnUhAt6H/?mibextid=jmPrMh>

The past financial year presented significant challenges to JRA, including service disruptions due to load shedding, unforeseen incidents such as a gas explosion at Lillian Ngoyi Street, and the deaths of two officials in the line of duty due to negligent drivers. Additionally, the M1 highway double-decker bridge was damaged by fire, and we continue to face the ongoing challenges of theft and vandalism of the entity's infrastructure. Despite these obstacles, we persevered and remained committed to delivering essential services.

On a positive note, as you explore this magazine, you'll discover our plans to invest R117.738 million in upgrading gravel roads, stormwater channels, and other infrastructure. We are proud of our successful partnerships with private sector companies that have been instrumental in ensuring traffic signal functionality during power outages. Through the Traffic Signal Backup Power Initiative, over 44 companies are powering more than 113 intersections. Recently, First National Bank joined this effort, by powering traffic signals along Pixley KaSeme, Pritchard, Harrison, Simmonds, and Rahima Moosa Streets. We encourage other businesses to contribute to this vital initiative.

We are leveraging technology to combat the ongoing issues of infrastructure theft and vandalism. This includes implementing the Adaptive Control Signalling Network, collecting and analysing road network data, implementing infrastructure standards to support Smart Cars, and deploying advanced sensors and cameras for traffic monitoring.

Finally, I invite companies with relevant expertise to submit proposals for safeguarding our critical traffic infrastructure. Together, we can work to maintain the City's roads and infrastructure for the benefit of all.

Enjoy the read!

CEO of Johannesburg Road Agency
Zweli Nyathi



MMC in the Driver's Seat: The Crucial Role of Jozi's Transport Sector in Driving Economic Growth

In Johannesburg, the transport sector and road infrastructure are key pillars of the economy. As the economic hub of South Africa, the City relies heavily on an efficient transport network to support its diverse industries, facilitate trade, and enhance the quality of life for its residents. Roads form the backbone of this network, connecting businesses, communities, and markets, while enabling the movement of goods and people across the City and beyond.

The importance of well-maintained roads and reliable public transport systems cannot be overstated. A functional transport infrastructure reduces congestion and travel time and boosts productivity. With over five million residents, Johannesburg must ensure smooth traffic flow and efficient public transport options to sustain economic activities and attract investments.

As the leader of the City's Transport departments and entities, I envision Johannesburg in the future with a world-class transport system that supports economic growth and meets the needs of its citizens. My vision focuses on modernising public transport infrastructure, expanding road networks, and improving road safety to enhance mobility. This includes upgrading key corridors, increasing the accessibility of Bus Rapid Transit (BRT) systems like Rea Vaya, and promoting sustainable transport solutions such as cycling and pedestrian-friendly routes.

Moreover, I am committed to integrating smart technology into the transport sector. This includes using data analytics and intelligent traffic management systems to ease congestion, reduce accidents, and improve road maintenance. These efforts will boost the City's economy and ensure equitable access to transport services for all residents, fostering inclusive economic growth.

In conclusion, Johannesburg's transport infrastructure is fundamental to its economic success. My vision promises a more efficient, sustainable, and forward-thinking system that will help propel the city into the future.

Keep moving forward!

MMC for Transport, City of Johannesburg
Cllr. Kenny Kunene



Win-Win as Partnerships Power Traffic Signals during Power Outages

By: Lucia Mhlanga



From left to right : JRA CEO Mr Zweli Nyathi, MMC for Transport Cllr. Kenny Kunene, & Vodacom CEO Mr Sitho Mdlalose celebrating the new partnership

Over the past 18 months, a collaborative effort between JRA and 40+ private companies has significantly improved traffic flow and safety in the city. By providing backup power to 113 intersections, these partnerships have ensured uninterrupted traffic signal operation during load shedding and power outages.

“We’re very excited about the success of our Traffic Signal Backup Power initiative”, enthuses Acting Head of the Mobility and Freight Department, Sipho Nhlapo, adding, “Corporate Johannesburg has



JRA traffic signal technicians installing new traffic lights

The initiative has garnered support from corporate giants such as Investec, First National Bank, Total Energies, Vodacom, Standard Bank, Nedbank, Growthpoint, Sasol, Redefine Properties, Discovery Limited, Old Mutual, Liberty, Two Degrees and Pareto, Zenprop Property Holdings, Rand Merchant Bank, Morningside Shopping Complex, Momentum, Southern Sun, Blue Label Telecoms, The Cavaliers Group, Bowmans, Santam, Sanlam, Davinci Hotel and Suites, MTN, and Netcare. These companies contribute power ranging from 550 to 1500 watts, ensuring the smooth functioning of traffic lights at critical intersections.

The benefits are far-reaching. Improved traffic flow reduces congestion and road rage incidents, while well-functioning traffic lights enhance pedestrian safety, prevent gridlock, and improve general transportation efficiency. These positive outcomes contribute to economic productivity, environmental sustainability, and the overall quality of life for Johannesburg residents.

“The many benefits to the public are a testament to what can be achieved when public and private sectors work together to address urban challenges,” says JRA Chief Executive Officer Zweli Nyathi. He also encourages other organisations to join hands with the JRA and support this initiative to contribute to the City’s well-being.

The process of partnering with JRA is easy. Interested companies can express their interest via email. After assessing the site, JRA will finalise the partnership and complete the necessary work to connect to the backup power supply. Councillor Kenny Kunene, Member of the Mayoral Committee (MMC) for Transport, highlights the positive

impact of functional traffic lights on daily life. He notes, “Functional traffic lights go a long way to reduce the daily disturbances of everyday lives that road users and the public experience during load shedding. This includes reducing criminal activities often associated with the City’s traffic signal failures. The Traffic Signal Backup Partnership is a win-win for everyone.”

Joburg’s Traffic Signals in Numbers

- 1927** The year the first traffic signal was installed in Johannesburg (the economist.com)
- 2023** Traffic signal intersections
- 829** Intersections with vehicle detection
- 97735** Lamps
- 15578** Poles
- 1907** Intersections with controllers

The Battle Against Theft and Vandalism of Road Infrastructure

By: Kelebogile Mafa



Vandalised traffic light

On the 1st of May (Worker's Day) 2024, one of the City's busiest highways caught fire in the bridge tunnels, resulting in an immediate road closure. Trucks, buses, taxis, ambulances, and other service vehicles on the M1 Bridge were gridlocked between the Crown and Smit interchanges for several hours. Further closures were implemented on Smit Street under the bridge for the safety of road users. These closure affected traffic between Braamfontein and Brixton.

Investigations revealed that cable theft on the M1 Bridge triggered the fire that compromised parts of the bridge's structural integrity on the far-left lane. Earlier in May, 22 suspects were arrested in connection with this incident. The JRA undertook emergency work at a cost of R10 million.

In its 2023/24 report, the City recorded an overwhelming R150 billion road infrastructure backlog. JRA's efforts to provide a safe and accessible road network to road users are further impeded by this scourge, where road project funds are diverted to emergency projects.

The cost of illegal mining, vandalism, and theft of road infrastructure extends beyond lost revenue. The overall safety of residents and road users remains at risk as JRA battles a race against numerous sinkholes and the abrupt collapse of stormwater infrastructure. In an article titled "The Impact of Infrastructure Theft and Vandalism on Basic Human Rights to Communities", the South African Local Government Association (SALGA) (2023) writes, "Infrastructure vandalism and theft have also impacted people's freedom of movement as there has been a severe disruption to transportation networks".

The story of roads in historic mining suburbs like Roodepoort, Booyens, and Wemmer, is one of transformation, as these areas have developed over the years into residential and business hubs. The City of Gold remains a lucrative source of illegal mining activities and areas along the Main Reef Belt experience tunnelling

on the road reserve and excavations of bridge embankments. JRA commissioned investigations and Visual Conditions Assessments (VCAs) into the extensive damage of a 600m road and pavement structure along Iridium Street between the R41 and Penny Road slipway in Roodepoort. A 2020 report revealed that continued illegal mining and tunnel excavations compromised large portions of the upper pavement layers and resulted in the collapse of the road edge. At the time of investigations, major rehabilitation work was estimated to cost just under R19 million. This road remains closed off to traffic while motorists use alternative routes.

In Booyens, recurring potholes on Earp/Webber Street, between John and Ignatius Streets, eventually turned into three sinkholes. Currently, road users divert to Hans Pirow Street, an access road to several businesses, including the Rea Vaya Bus Rapid Transit (BRT) System and Putco bus depots. JRA repaired sinkholes on Hans Pirow Street and continues to monitor this route.

In certain areas, we can mitigate the impact of vandalism and theft of road infrastructure by converting signalised intersections into stop streets.

JRA also implemented an emergency closure on Wemmer Pan Road when it collapsed between Reynolds Street and Turf Siding Road due to illegal mining tunnelling activities. About 450 metres of road and critical stormwater infrastructure are severely impacted. Rehabilitation is estimated to cost just over R50 million. In addition to surging incidences of illegal mining, JRA's records indicate an alarming increase in theft and vandalism of traffic signals, manhole covers, and steel guardrails, among others. Some key interventions include replacing metal products with alternative materials for hand railings, brackets, manhole covers, grids, and kerb inlet slabs with no resale value in the informal market.



Sinkholes in Booyens at John & Earp Streets



JRA repairing a sink hole caused by illegal mining in Miles Stoker road, Roodepoort

A moratorium on the sale of second-hand copper was announced by National Treasury in 2022, aimed at reducing copper cable theft which is the leading cause of vandalised intersections. JRA manages 2028 signalised intersections equalling approximately 16 000 traffic lights that the City and its residents must protect.

Meryl Erasmus, an Engineer for Intelligence and Analysis in the JRA's Mobility and Freight Department, elaborates on other interventions. "In certain areas, we can mitigate the impact of vandalism and theft of road infrastructure by converting signalised intersections into stop streets, thereby aiming to provide a more reliable, safe, and sustainable solution for managing traffic flow," Erasmus said. However, the stop-street conversion approach cannot be implemented everywhere. Erasmus, who has 36 years of working experience in the CoJ Municipality, explained that freeways and arterial roads, which carry the highest traffic volumes, need robust control systems like traffic signals to manage the flow safely.

JRA reports theft and vandalism of the road assets and relies on the City's law enforcement authorities to apprehend suspects involved in these activities. Six cases of theft and vandalism have been reported, and the legal process is underway. Additionally, two suspects who have pleaded guilty to theft and vandalism are awaiting sentencing.

Earlier in 2024, the Johannesburg High Court sentenced a suspect to ten years of direct imprisonment for stealing a traffic signal controller box on Eloff Street. Three other criminals were convicted of the theft and vandalism of traffic signal infrastructure and received sentences for three years, ten years, and 20 years of direct imprisonment, respectively.

Xolani Fihla, spokesperson for the Johannesburg Metropolitan Police Department (JMPD) provides insight into the City's action plans from a law enforcement perspective. He explains that the JMPD uses a multi-faceted approach to effectively monitor hotspots of criminal activity. This includes regular

patrols and an Intelligence Integrated Operations Command Centre equipped with strategically placed CCTV cameras.

"This system enables real-time monitoring of criminal activities and facilitates evidence collection," said Fihla. He added that there are increased efforts to collaborate with community forums to receive timely reports, noting that tip-offs from community members assist greatly. The National Prosecuting Authority's (NPA) 2022/23 report indicates an 85.7% success rate for the prosecution and conviction of copper theft and essential infrastructure-related crimes, totalling 1 417 of the 1 654 cases registered. These are categorised as organised crimes.

Report all acts of vandalism and theft of road infrastructure at 0860 562 874 or report criminal activities such as theft and vandalism to the South African Police Service (SAPS) at 08600 10111 and JMPD at 011 375 5911.



Inspecting a vandalised traffic signal controller box



Road Works Spotlight

7 Regions



We showcase how JRA's current and upcoming construction and maintenance projects are improving the lives of Johannesburg's communities.

REGION A

JRA Gears up to Spend **R117 Million** on Gravel Roads and Stormwater Upgrades

By: Lucia Mhlanga

Upgrading gravel roads is high on the JRA's agenda in Region A as the entity has committed R117 738 million for Capital Expenditure (CAPEX) Projects during the 2024/25 financial year. In Diepsloot's Ward 113, R49 million will be spent on upgrading 1.5km of existing gravel roads to surfaced standards, along with a stormwater network and paved sidewalks. A further R10 million has been allocated for upgrading a 0.5 km gravel road on Bulelwa Makomane Street to surfaced standards which includes stormwater and sidewalks in Ward 110's Mayibuye Phase 3B.




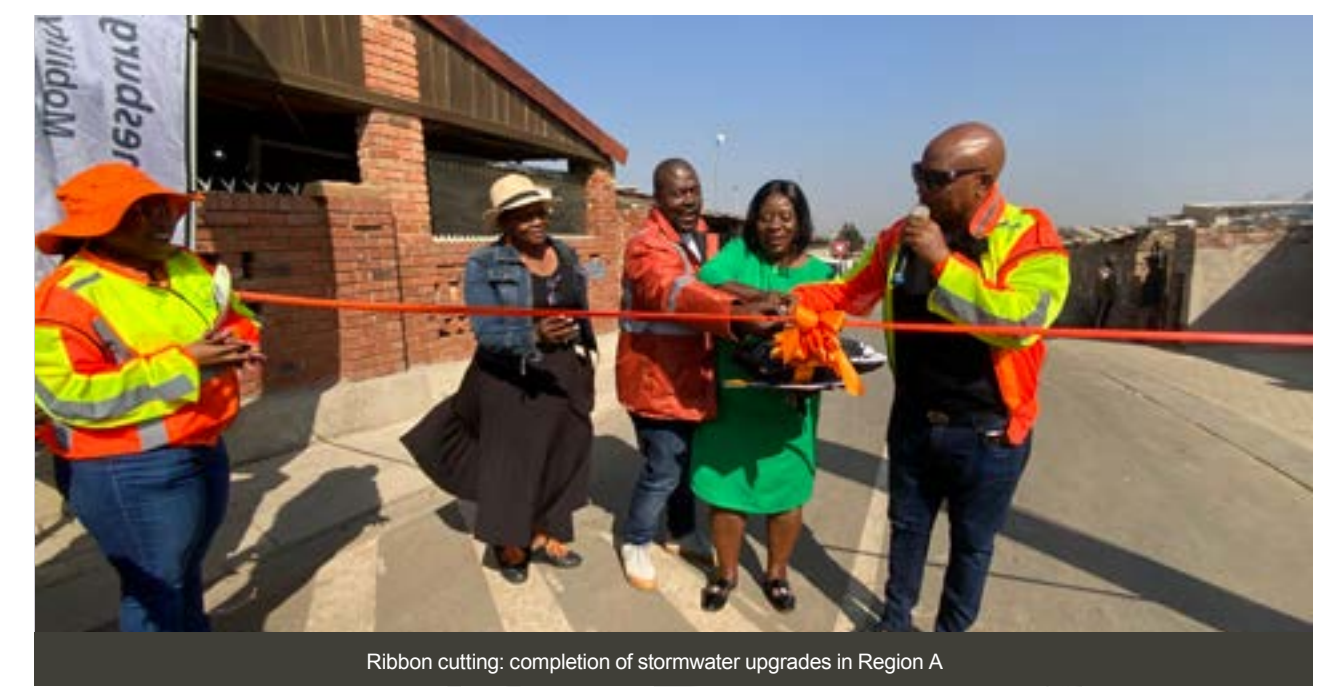
Road resurfacing

Additional upgrading of existing gravel roads to surfaced standards including the associated stormwater network and sidewalk paving will be carried out in Ward 92 in Kaalfontein for R15 million. The planned works for this project will involve 0.5 kilometres of road construction inclusive of stormwater drainage. Idube Milo Street in Ivory Park's wards 77 and 133 will also be upgraded to surfaced standards at a cost of R17 million covering 1 kilometre.

An open drain in Ward 77 in Ivory Park will be converted to an underground stormwater drainage system costing R10 million. The earmarked works for this project will include installing pipes and culverts to replace the affected drains alongside the road.

The Jukskei Catchment system, which includes the Vorna Valley Stream and new stormwater catchments in Vorna Valley Extension 13 A, Ward 132, will undergo a further R1m drainage system upgrade at the Vorna Valley Wetland over an area of 0.9 kilometres.

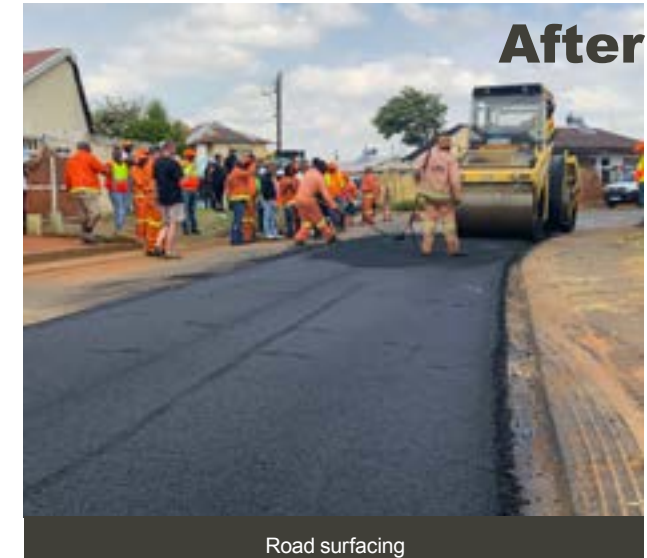
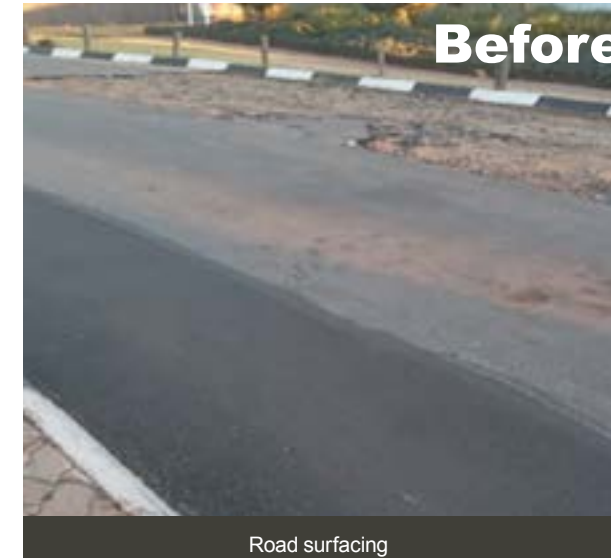
Richards Drive in Midrand's Halfway House, Ward 110 is set for an upgrade from Le Roux Avenue to Church Street. Land acquisition has been done costing R4 750 million. The scope of work for this project is still in its early stages and will include increasing Richards Drive from one to two lanes in each direction with associated stormwater drainage from Le Roux Avenue to Church Street. Additional road resurfacing work will also be undertaken in the region at a cost of R10 million. 




Ribbon cutting: completion of stormwater upgrades in Region A

R42.5 Million Infrastructure Development Update

By: Lucia Mhlanga



Region B is a key area in Johannesburg, encompassing a diverse range of suburbs. The region's infrastructure, including its road network, is crucial for both residents and commuters. The recent financial year has seen significant progress in improving the region's roads, ensuring safety and accessibility for all road users.

Road network. By addressing issues such as stormwater management and road conditions, the region is improving the quality of life for its residents and commuters. The investments made in these projects demonstrate the City's commitment to maintaining and enhancing the region's infrastructure for years to come. 

In 2024, JRA allocated R42.5 million for various infrastructure projects. These include:

Klein Jukskei Catchment:

Bond Stream Relief System in Ferndale: This completed project aims to replace stormwater pipes with culverts and install a bulk water system. Phase two was completed in September 2024 with a ribbon cutting event.

Rehabilitation of a Collapsed Stormwater Channel on Blumberg Street, Industria West:

This project is currently in the design phase, with plans to rehabilitate a collapsed stormwater channel.

Emergency Erosion Protection Measures in 134 Gertrude Street, Malanshof:

A retaining wall is being constructed to address erosion issues in this area at a cost of R10 million.

Road Resurfacing Programme:

This project involves resurfacing identified roads in various wards and 5.06 lane kilometres of roads have already been resurfaced by the JRA's Road Surfacing Depot. These infrastructure projects are essential for ensuring the safety and functionality of Region B's



JRA Drives City Forward with Road Resurfacing Programme

By: Kelebogile Mafa



Road resurfacing on Bridal Veil Crescent in Little Falls, Roodepoort

As the new financial year kicked off in July 2024, the JRA swiftly rolled out several projects and road maintenance programmes that were in the planning stages during the previous year. Among these is the entity's Road Resurfacing Programme (RRP), which forms part of the JRA's commitment to providing quality roads that are safe and accessible to road users in the CoJ. With a total budget of R70 million allocated towards the 2024/25 City-wide RRP, the JRA's Road Resurfacing Team has already hit the ground running in upgrading roads on main arterials, motorways, and residential in-roads.

Region C is situated in the western direction of Johannesburg, and includes Roodepoort, Cosmo City, Doornkop, Witpoortjie, Fleurhof, Randpark Ridge, Northriding, etc. Its dynamic topography features watercourses, wetlands, old mining belts in the south, industrial areas, as well as the gradual development of residential areas and business activities over time. All these factors, in different ways, impact roads and related infrastructure. Heavy-duty vehicles, high traffic volumes, flooding, and water seepages onto roads are common contributors to potholes forming and the deterioration of roads.

JRA's long-term approach to addressing the deterioration of roads beyond pothole patching, deep patching, or crack-sealing is through road resurfacing. With the RSD located a road away from the JRA's Asphalt Plant in Booyens, our teams can easily get those ten-ton trucks onto the weighbridge within minutes to collect the in-house produced hot mix of asphalt. Between July and September 2024, JRA resurfaced roads in Witpoortjie (Ward 71), Constantia Kloof and Florida

Park (Ward 85). Major arterial roads resurfaced include Christiaan De Wet and Ontdekkers Roads, and sections of Elseburg Road and the Golf Club.

A combined total of 2.34 lane kilometres of Ontdekkers Road (including three off-ramps, one on-ramp, and two slip lanes) were resurfaced. Ontdekkers Road is a critical transport node in Johannesburg and a common route for buses, trucks, and minibus taxis. In September 2024, JRA's RSD teams resurfaced 2.99 lane kilometers of road along Bridal Veil Crescent (near Augrabies Avenue) in Little Falls (Ward 97).


“ This is service delivery and we are seeing where the ratepayer's money is working. ”

Residents Steve and Fiona who have lived in Little Falls for over 20 years said they are happy to see the road upgrades and overall improvement in maintenance around the area. “The teams are doing a good job. Sections of the road were in a dire state and were filled with potholes. This is service delivery and we are seeing where the ratepayer's money is working,” said Steve. He also expressed a greater need for similar upgrades in informal residential areas. If you

live, work, or travel along Witpoortjie (Ward 71), you may have spotted the JRA's RSD teams milling out old tar along a 1.1km stretch of Proot Street (between Drommedaris and Trezona Street) and replacing it with about 30mm of the wearing course. This is called the in-lay process wherein the hot asphalt mix is added onto the road.

While on the topic of roads, let's quickly jog down memory lane. You will remember that in the 2023/24 financial year, the JRA resurfaced a section of Central Africa Republic Street (near Sierra Leone Street) in Cosmo City (Ward 100). The resurfaced section is approximately 400m away from two secondary schools. In Quellerina (Ward 97), a combined total of 3.34 km of lane was resurfaced between Zandra and Heidi Streets. In Bergbron (Ward 97), 1.78 km of road was resurfaced along Philips Avenue. Remember, the JRA's RRP is an ongoing programme budgeted for annually and implemented according to two main factors: the state of the road and the availability of funds.

Roads are upgraded on a priority basis determined by the condition of the road ranging from “very good,” to “poor,” and “very poor”. This classification of the state of road conditions follows a criteria guideline called a Visual Conditions Index (VCI) and Visual Condition Assessment (VCA), a periodic comprehensive assessment, and investigation into the quality of roads City-wide. So, if you have not seen us in your area yet for that road which has reached its lifespan, fret not! The JRA remains committed to improving the quality of roads and simplifying mobility. We will get to yours in due course. In the meantime, the JRA's maintenance team continues conducting reactive maintenance as a short-term measure where applicable.

That's it for now. Stay safe, Region C Community, and continue the good work in taking care of the City's road infrastructure, and reporting all road-related defects on our various platforms. 



Residents of Little Falls, Steve & Fiona



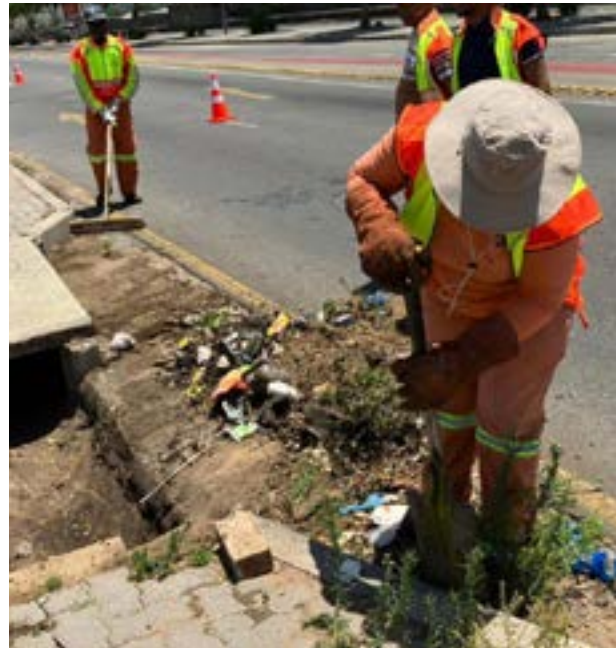
Road resurfacing on Bridal Veil Crescent in Little Falls, Roodepoort

R107 Million Capex Budget Earmarked for Major Infrastructure Upgrades

By: Brümilda Swartbooi

The JRA has announced a substantial R107.17 million CAPEX budget for Region D in the 2024/2025 fiscal year, aimed at upgrading critical infrastructure and improving the quality of life for residents. Key projects include stormwater management improvements, upgrading gravel roads, and the construction of a pedestrian bridge, which are set to profoundly impact the area's residents and motorists.

The JRA, tasked with maintaining and improving Joburg's road and related infrastructure, has reaffirmed its commitment to enhancing the City's network. Between July 2023 and June 2024, the JRA successfully completed more than



JRA team cleaning stormwater drains in Diepkloof

6,000 pothole repairs, graded over 7,000m of gravel roads, and conducted over 390,000l/km road marking and painting projects. These initiatives formed part of a wider programme focusing on road resurfacing, stormwater management, bridge construction, and catchment area maintenance.

Infrastructure Development Project Manager Mukesh Hira highlighted the ongoing infrastructure improvements in Kliptown, specifically within the Racecourse township. Roads such as Union Avenue, 2nd, 3rd, and 4th Avenues are being upgraded to improve stormwater infrastructure

as well as access into the township, which has suffered extensive damage from heavy rainfall and subsequent flooding. "The roads in Racecourse have been in a dire

“The upgrades will not only restore access but will also reinstate the dignity of the area.”

state due to high-intensity rainfall, which caused severe flooding and considerable damage. This made access to the township extremely challenging. "The upgrades will not only restore access but will also reinstate the dignity of the area," explained Hira.

He noted that although budget constraints limit road upgrade projects, efforts to improve stormwater reticulation systems are ongoing in high-risk flood areas such as Protea Glen and Meadowlands. These upgrades are expected to mitigate the flooding of homes and enhance road safety during the anticipated high rainfall season. "The improvements to the stormwater systems will help alleviate flooding in the affected areas and contribute to safer road conditions, which is crucial given the heavy rainfall forecasts," Hira added.

In Ward 15, the JRA has earmarked R5 million for upgrading gravel roads in Slovoville to surfaced standards, with additional work on stormwater networks and sidewalk paving. Detailed designs have been resubmitted for final approval, and construction is expected to commence soon.

The ongoing Stormwater Masterplan implementation at Meadowlands Stadium in Ward 41 is a critical project, with an approved budget of R26.59 million. This project has already seen the installation of 80 metres of stormwater pipes, with further construction planned for the coming months. Emergency stormwater improvements are underway in Wards 13, 14, and 135, with R10 million allocated for this phase. The inception design is progressing, and implementation is expected to follow shortly. The 2024/2025


budget also includes funding for two vital bridge projects. The Mzimhlophe pedestrian bridge has been allocated R2.85 million, and the tender process for appointing a contractor is nearing completion. This bridge will improve safety and accessibility for pedestrians in the area.

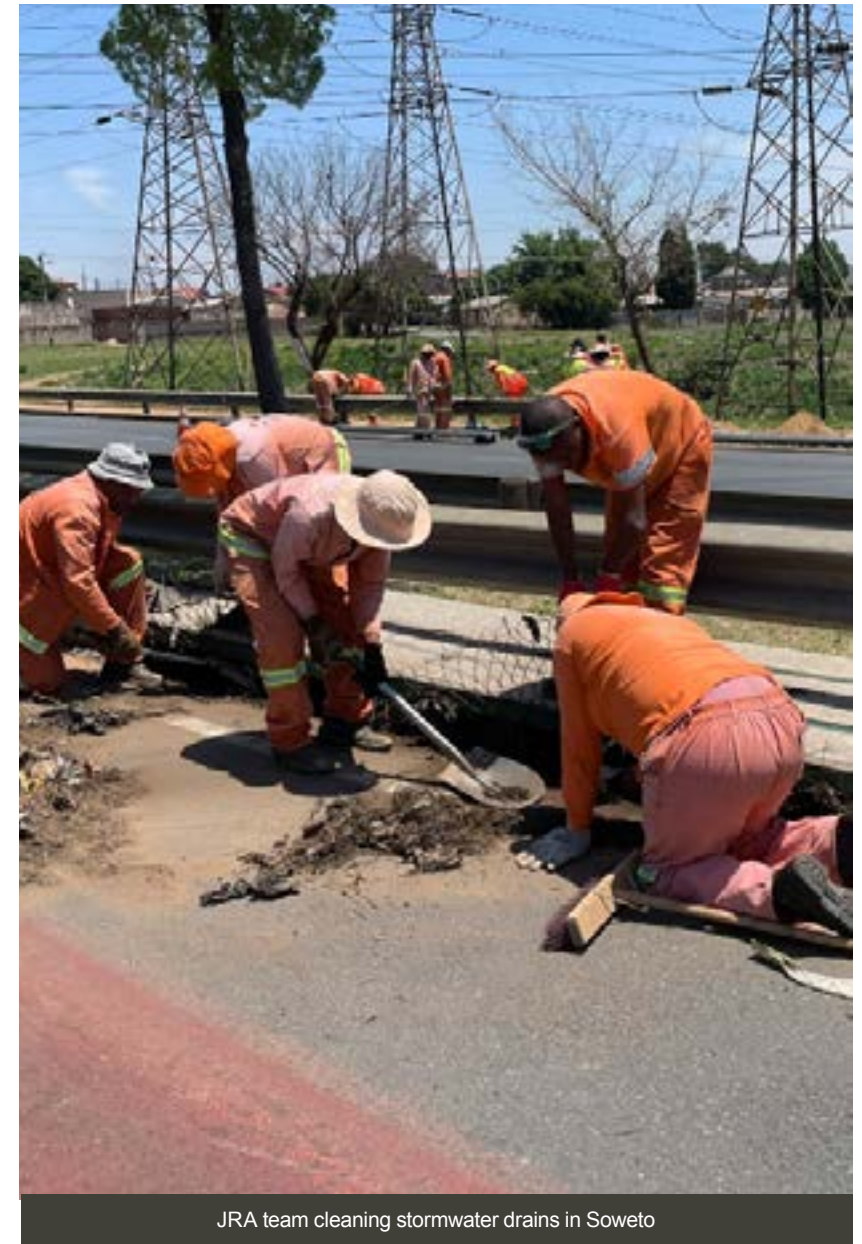
In Zola, the Maphumulo Street culvert bridge was upgraded from a low-level bridge at a cost of R41.9 million to alleviate overtopping during rainfall.

Further funding of R27 million has been designated for stormwater upgrades on Dippenaar Street and Rathebe Passage in Wards 28 and 31. Work from the previous fiscal year is ongoing, and with 42% of culvert installations completed, the project is progressing steadily.

Hira stressed that all projects are subject to continuous monitoring and evaluation throughout construction. "We strictly adhere to the Conditions of Contract and Engineering Guidelines, which ensure that our project managers deliver high-quality infrastructure. The Engineering Standards we comply with guarantee that road users and residents benefit from durable and safe roadways," he said.

He emphasised the importance of patience during construction and cautioned motorists and residents: "We urge residents to be vigilant around construction sites, particularly by reducing speed and adhering to posted signage. We also ask parents to keep children away from ongoing construction work. Safety is paramount at the JRA, even one fatality is too many. We ask for patience during these works; as the result will greatly benefit the community."

As the JRA continues to implement these critical infrastructure projects, the improvements promise long-term benefits, ensuring safer and more efficient transport for the people of Region D. 



JRA team cleaning stormwater drains in Soweto



Skofelling along road islands on M1 north



A Tapestry of Challenges and Progress

By: Mosa Makhalima



Region E Sandown Mushroom Farm Park stormwater infrastructure rehabilitation

Region E, a vibrant and diverse area in Johannesburg, presents a unique set of challenges for JRA due to its contrasting landscapes. From the historic Alexandra township established in 1912, dominated by shacks and poor sewer systems, to the surrounding affluent suburbs like Sandton, Wendywood, Malboro, and Buccleuch, the region faces infrastructure issues ranging from flooding to inadequate roads and drainage systems. To address these challenges, JRA has allocated a significant CAPEX budget of R88.65 million for the 2024/25 fiscal year. Key projects include rehabilitation of bridges, upgrading of stormwater drainage systems and gravel roads to surface standards.


The Buccleuch Drive Bridge on the Jukskei River in Buccleuch is a crucial initiative to address erosion and safety concerns as the bridge spanning the Jukskei River between Wards 32 and 109 suffered severe erosion to its embankments after the heavy summer rains of late 2017 and early 2018. Construction of walls for stormwater management on the Jukskei River in Alexandra is also in the pipeline with the detailed design approved and the tender in progress. The Modderfontein Bridge reconstruction is also underway, ensuring the bridge remains open to traffic while a new contractor is appointed. The upgrading and reconstruction of the existing major culvert in Canterbury Crescent Gallo Manor is also set to resume once a new contractor is appointed to complete the works. The bridges and culverts, when completed, are expected to bring relief to the residents and road users, especially during the rainy seasons.

The stormwater catchment programme in Far East Bank, Alexandra aims to alleviate flooding through the construction and upgrading of drainage systems. The gravel roads

rehabilitation programme which started in October 2022 and was completed in February 2024 between Nancy Ndamase and Oliver Tambo Streets in Klipfontein View, has successfully improved road conditions and associated stormwater works. The rehabilitation of open drains and associated stormwater works is also underway at Killamey Golf Course. While Region E faces challenges such as flooding and blocked stormwater drains, the two depots situated at Norwood and Zandfontein respectively are responsible for overall maintenance and repairs to road-related infrastructure across the Region.

“Beauty cannot be seen if areas are left to deteriorate.”

Region E’s Depot Manager Khaya Mabandla and Former Acting Regional Operations Manager (ROM), Tebogo Mogashoa believe that Johannesburg has the most wonderful road infrastructure, beautiful bridges, and walkways. However, this beauty cannot be seen if areas are left to deteriorate. Maintenance plays a critical role and the depots are actively working on flood management plans, proactive and reactive maintenance and emergency procedures. [Recently JRA held #OperationLungisa in Alexandra to boost maintenance service delivery.](#)

Region E’s diverse landscape and infrastructure challenges require a multifaceted approach. Through targeted capital investment and effective maintenance strategies, JRA is working towards improving the quality of life for residents and commuters in this dynamic region. 

Did You Know?

The design lifespan of an urban road is 25 years. So, does this mean newly resurfaced roads last 25 years with potholes or defects?

Not exactly! What it means is that the entire road structure, including its layer works and compact works, has a design lifespan of 25 years. However, wear and tear, road pressure, and inclement weather can impact the road condition thereby reducing its lifespan.

Road resurfacing extends the lifespan of the surface road by 8-10 years. This means that the asphalt or tar layer has a lifespan of 8-10 years post-resurfacing.

REGION E

JRA Pushes Forward With Major Road Upgrades

By: Sascha-Lee Joseph



Road maintenance on M1 South



Road excavations on Lilian Ngoyi Street, inner city



Road resurfacing on M2 west

REGION F

The Johannesburg Roads Agency is advancing critical infrastructure improvements across Region F, aiming to enhance road conditions, bolster connectivity, and support economic growth. As part of a broader City-wide initiative, the JRA has earmarked significant funds from its 2024/25 CAPEX budget to drive these upgrades.

the City's commitment to enhancing its critical arterial routes.

The M2 Motorway will also undergo significant resurfacing, with R5.6 million dedicated to this effort. This project involves milling and resurfacing the westbound carriageway of the M2, specifically from New Goch Road to

construction of a transit mall. Maluleke provided details on the ongoing works, stating that the project's first phase includes reconstructing 450 metres of collapsed road and related infrastructure caused by a gas explosion.

Additional work includes constructing a reinforced concrete tunnel, relocating

stormwater and sewer pipes, and installing lighting, detection, and ventilation systems. Structural stability will also be improved with lateral support measures.

Despite facing delays, Maluleke reassured stakeholders that the project remains on track. He noted that the first phase's completion, initially scheduled for 2024,

has been extended by six months, with a new expected completion date of August 2025.

The rehabilitation of Lilian Ngoyi (formerly Bree) Street has experienced notable setbacks due to contractor performance issues. "The delays stemmed from the contractor's failure to meet key contractual obligations," Maluleke explains. The JRA invoked Clause 9.2 of the General Conditions of Contract (2015), issuing a 14-day notice of intent to terminate the contract. This led to the formal termination of the contractor's agreement on 14 August 2024. "To mitigate further delays, a new contractor has been appointed to take over the project's second phase, which includes upgrading the road surface and adjusting sidewalks along the 1.8 km stretch of Lilian Ngoyi Street. The second phase is expected to take 12 months, with a revised completion date of August 2026 due to the initial delays."

The JRA has ensured that the allocated funds cover all aspects of the infrastructure projects, from design and planning to full implementation. Morodi highlights that these improvements would lead to a stronger, more reliable road network, benefiting residents and businesses. "By focusing on the rehabilitation and resurfacing of key roads, the JRA is committed to significantly improving

driving conditions across Region F," Morodi states. "The capital injection into the area's infrastructure is set to revitalise the region, ensuring smoother, safer, and more efficient travel for all."

Residents and commuters can expect a noticeable improvement in road safety, driving conditions, and connectivity, with the ongoing projects set to transform the region's road infrastructure for years to come.

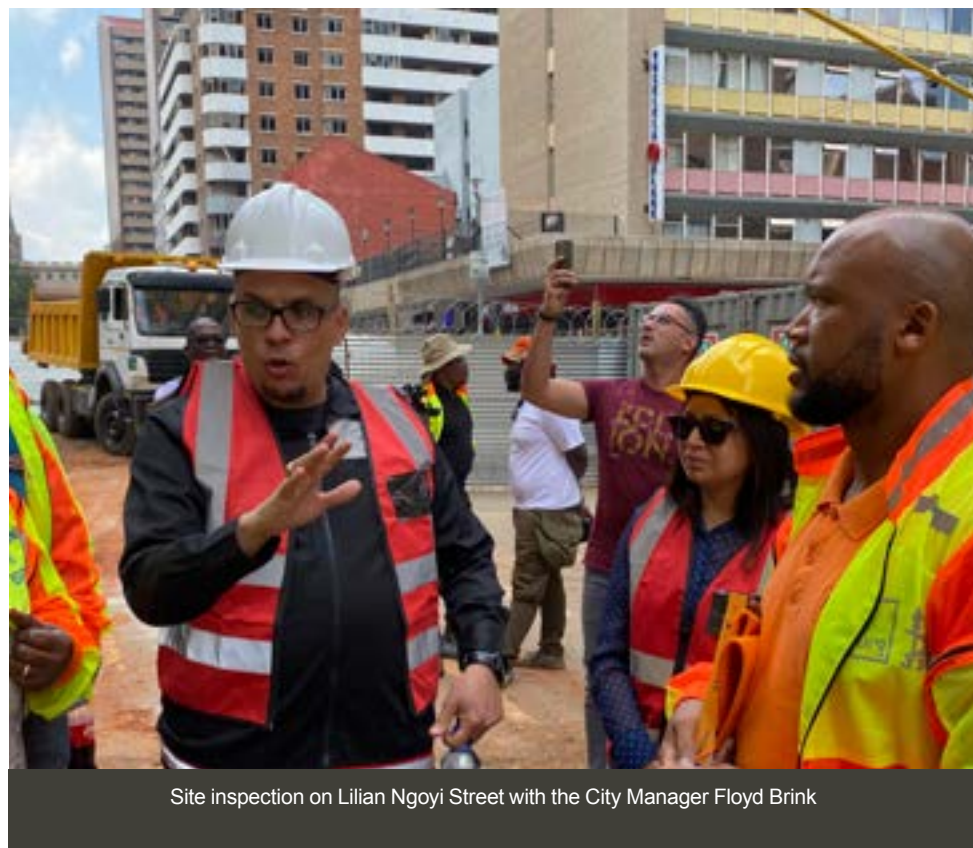
“The capital injection into the area's infrastructure is set to revitalise the region, ensuring smoother, safer, and more efficient travel for all.”

Jacob Morodi, the JRA's Infrastructure Development Project Manager says the focus in Region F has been on addressing long-standing road infrastructure issues. "Some projects have already been completed, while others are ongoing and will extend into the next financial year," Morodi confirmed.

For the 2024/25 fiscal year, the JRA has allocated R113.78 million from its CAPEX budget for rehabilitating and resurfacing key roads within Region F. Among the major undertakings is the resurfacing of the M1 Motorway, spanning multiple wards in the region. A budget of R4 million has been set aside for this project, signalling

the Maraisburg off-ramp. In addition, a budget of R10 million has been allocated for general resurfacing work across Region F, marking a concerted effort to improve road surfaces throughout the area.

One of the most substantial projects in Region F is the Lilian Ngoyi Rehabilitation Programme, which is currently underway in wards 59 and 60. According to Jeff Maluleke, another JRA Infrastructure Development Project Manager, this programme has been allocated a budget of R192 million. The initiative involves the restructuring of a concrete tunnel, the reconstruction of roads, and the



Site inspection on Lilian Ngoyi Street with the City Manager Floyd Brink



Road safety awareness campaign on M2 east motorway



JRA asphalt team at work

Massive Infrastructure Overhaul Underway

By: Mongadi Mafata

REGION G

Region G, one of the City's largest and most populous areas, is undergoing a substantial infrastructure overhaul to improve roads, sidewalks, and stormwater systems. With a budget of R95.27 million earmarked for these upgrades, the developments are expected to enhance accessibility, safety, and the overall quality of life for residents. The JRA has allocated a portion of its R859 million CAPEX budget for the 2023/24 financial year to these transformative projects.

The focus of the infrastructure development in Region G is to upgrade gravel roads to surfaced standards, improve stormwater networks, and pave sidewalks. This investment in infrastructure is set to reduce flooding, and dust pollution, and improve overall mobility for residents in the region.

With a budget of R30 million, the Lawley Extension 3 & 4 project aims to convert existing gravel roads into surfaced roads, improving accessibility for residents while mitigating the dust and erosion that frequently plague gravel roads. The project also includes the installation of new stormwater networks and paving sidewalks to enhance pedestrian safety. The appointment of two contractors is underway, signalling the impending start of the upgrade.

Allocated R10 million, the Drieziek Phase 4 project seeks to upgrade the area's gravel roads to surfaced standards, with the addition of stormwater management systems and the paving of sidewalks. These upgrades are set to drastically improve access to this community, particularly during the rainy season when unpaved roads become nearly impassable.

The Orange Farm project represents one of the most significant portions of the budget, with an allocation of R30 million, and an additional R12 million for further phases. This ambitious project focuses on transforming gravel roads, upgrading stormwater drainage systems, and paving sidewalks across multiple wards in the area.

Phase 4A (Ward 1):
A contractor was appointed in February 2024, and work is already 20% complete, with the current focus on installing stormwater pipes.

Phase 4B (Ward 131):
Work began in March 2024, with progress at 10%. A Community Liaison Officer (CLO) is in place to mediate community concerns.

Phase 4C (Ward 3):
Work is scheduled to commence in March, following the appointment of a contractor. The re-advertisement of the CLO position due to administrative issues is in progress.

Phase 4D:
The Detailed Design Report (DDR) has been approved, and the preparation of tender documents is underway.

Another crucial project in Orange Farm involves the conversion of open stormwater channels into an underground stormwater drainage system, with a budget of R15 million and an additional R14 million for further improvements. This project is critical for flood prevention and improving water management in the area.

With a budget of R5 million, the Poortjie Phase C project aims to upgrade gravel roads in Poortjie to surfaced standards, incorporating stormwater networks and sidewalk



Stormwater upgrade in Region G

paving. These improvements will provide a durable and safer environment for drivers and pedestrians.

Kanana Park's Phase 2 project is set to benefit from an allocation of R15 million, which will go towards upgrading gravel roads, improving stormwater systems, and paving sidewalks. The project is expected to provide significant long-term benefits, including reduced dust, better road conditions, and improved pedestrian safety.

Despite the progress being made, these projects have not been without challenges. JRA's Acting Regional Operations Manager, Nyeleti Mackay, says one of the primary hurdles has been budget constraints and attempts by certain individuals to forcefully involve themselves as subcontractors without following the proper procedures. However, these challenges were mitigated through ongoing stakeholder engagement, ensuring that projects stayed on track. "In one instance, a

“The City's decision to involve local contractors was vital in helping them build capacity and gain valuable experience.”

minor disruption occurred, but it was swiftly resolved with the intervention of the local councillor. Notably, no major work stoppages were reported, which is a testament to the strong community support for the projects. The community has recognised the long-term benefits that these infrastructure improvements will bring to their daily lives," Mackay explains.

The City's MMC for Transport, Cllr Kenny Kunene, launched Operation Restore in the Eldorado Park wards 17 and 18 in March. This initiative, supported by other regions, has been

instrumental in boosting service delivery across Region G. The operation continued into the 2023/2024 fiscal year, addressing issues such as flooding and ensuring the effective utilisation of resources within the JRA.

"Thanks to Operation Restore, several significant flooding issues in the region were resolved, improving overall service delivery and the efficiency of resource allocation. This operation has demonstrated the City's commitment to responding swiftly to urgent infrastructure needs while maintaining its long-term focus on sustainable urban development," she added.

Region G's infrastructure projects have been built on a solid foundation of lessons learned from past initiatives. For example, in the previous fiscal year, the City successfully converted open stormwater drains into an underground drainage system in Orange Farm, for R12.88 million. This project, which employed 21 local workers and six small and medium-sized enterprises (SMMEs), was a testament to the City's commitment to empowering local businesses. "While some SMMEs faced challenges meeting resource requirements, the City's decision to involve local contractors was vital in helping them build capacity and gain valuable experience. This experience has informed the approach for future projects, ensuring better support for SMMEs, and creating employment opportunities for residents."

Mackay says the City is committed to modernising infrastructure and improving service delivery in Region G. "The ongoing projects are a clear reflection of the City's efforts to enhance the quality of life for all residents, ensuring that infrastructure investments are sustainable and serve the community's needs for years to come."

The R95.27 million allocated to Region G represents just one facet of the City's broader infrastructure strategy, which is set to deliver long-term benefits for residents and the local economy.



Road Abasebenzi – The People behind the Asphalt

By: Bertha Peters-Scheepers



Every stretch of asphalt in Johannesburg is the culmination of a complex process involving meticulous planning, thorough construction, and tireless maintenance. Behind these roads lies a dedicated team of engineers, planners, project managers, maintenance teams, and traffic management specialists working tirelessly to ensure the City's roads remain safe and drivable.

Planning: The Blueprint for Success

The journey of a road begins long before the first shovel hits the ground. The planning phase is a critical step, often initiated by private development, the expansion of township roads by the City's Human Settlements Department, or by the City's Transport Department seeking to develop new transport routes guided by a 10-year transport master plan.



JRA's infrastructure planning session

Once the new road has been built, the JRA inspects and takes ownership of the road for maintenance purposes, issuing a completion certificate. Adherence to regulations, proper planning, and collaboration between developers, authorities, and communities are crucial for successful road projects.

"Roads constructed by private developers need to be according to JRA's standards, as upon completion, JRA takes over ownership of the road and continues to be responsible for maintenance going forward," explains Jose Monteiro, Operations Manager for Private Development Control.

"We have found some private developments with substandard roads and stormwater infrastructure that had to be redone, roads being built in the wrong position, and even situations where JRA has issued work stop-orders, confiscated plant, and fined developers."

Planning for floods and climate change is crucial in Johannesburg, where rapid urbanisation and decreased, permeable surfaces have led to excessive runoff, flooding streets and residential areas in low-lying areas. Employing "best engineering management practices" in drainage/stormwater management systems is essential. Andre Nel, Operations Manager for Roads and Stormwater Planning explains,

"These systems should aim to improve quality of life by preventing loss of life, property damage, preserving the natural environment, and be cost-effective." The JRA's Stormwater Master Planning (SMP) study is a cornerstone of this strategy. It scientifically determines runoff from sub-catchments and calculates required drainage systems, assessing their efficiency and proposing upgrades.

"Since 2009, the City has prioritised marginalised areas for SMP studies. To date, approximately 52% of Johannesburg has been covered by SMP based on catchments and sub-catchments. The masterplan ensures future developments minimise their impact on the water system," Nel continues. "It helps us plan, coordinate, and budget for effective drainage, prioritising high-need areas."

Nel notes that "at-source engineering of stormwater management (SUDS) is not a substitute for properly engineered stormwater infrastructure". While SUDS can reduce peak flows, energy consumption, and recharge groundwater levels, they should be used in conjunction with traditional systems.

Traffic Studies are another aspect considered when planning new or upgrading existing roads. Traffic studies are essential tools for urban planners, providing invaluable insights into traffic patterns, congestion points, and the overall efficiency of transportation networks. By analysing traffic data, engineers can identify bottlenecks, optimise traffic flow, and promote sustainable transport options.



JRA asphalt team

As JRA Traffic Engineer, Esther Schmidt explains, "Traffic studies are crucial for improving road capacity and safety. By implementing intelligent transport systems, managed lanes, and better traffic management strategies, we can enhance the overall road user experience." Schmidt further emphasises the importance of shifting travel behaviour towards more sustainable modes of transportation, such as walking and public transit.

“Preserving the natural environment, and be cost-effective at it.”

Once traffic studies have been conducted, the design phase of a road construction project begins. Engineers meticulously plan the road's alignment, cross-section, materials, drainage systems, and safety features. Before construction can commence, the project must undergo a rigorous approval process, including public consultations, environmental assessments, and compliance with relevant regulations.

Construction brings plans to life

The construction of a road is a complex process involving several key stages- site preparation, subgrade preparation, pavement construction, and finishing touches. These critical steps ensure the final product is safe, efficient, and sustainable. The JRA is pivotal in implementing these plans, subject to budget availability.

Kwazelela Mcetywa, HOD of the JRA's Infrastructure Development Department, highlights the importance of effective project management in ensuring the successful implementation of road construction projects. "Project managers are essential in ensuring that our roads and road-related infrastructure projects are well-planned, monitored, and controlled throughout the project lifecycle," Mcetywa explains. "Their effective leadership and management has contributed significantly to successfully completing road upgrades, bridges, and road rehabilitation projects."

The JRA's Gravel Road Upgrade programme seeks to convert all gravel roads in formal urban areas to surfaced roads.

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“Effective leadership and management has contributed significantly to successfully completing road upgrades, bridges, and road rehabilitation projects.”

This process starts with a feasibility study to assess the need for a new road or the expansion of an existing one. A formal town planning application is then submitted to the City of Johannesburg (CoJ) for a change in land use. This application is circulated to relevant departments, including the Johannesburg Roads Agency (JRA), for comments on roads, stormwater infrastructure, and availability.

The JRA requires a Traffic Impact Study and Stormwater Management Plan to determine mitigating measures for the proposed development. The CoJ uses these reports to impose conditions of establishment for the township or application. Once approved, detailed design drawings are submitted to the JRA for approval. Upon approval, the construction company or developer applies for a wayleave and constructs the work on site.

This project aims to reduce the dust from gravel roads and alleviate the impact of stormwater damage such as houses flooding and gravel washing away from the road reserve due to a lack of stormwater infrastructure.

These road upgrades will also streamline emergency vehicle access as well as refuse collection, as the new road surfaces will significantly improve the quality and speed of travel through these areas.

Over the past five years, the Infrastructure Development team has worked with an available

GIS mapping aids in maintenance planning, asset management, and emergency response. "The JRA only works on city-owned roads and does not work on proposed, private, national, or provincial roads, and therefore plotting the road network is very important as each map indicates who the owner of that road is by the colour of the line represented in the legend."

GIS mapping also helps depots with maintenance planning as they need to know how many kerb inlets (stormwater drains), manholes, etc., they must schedule maintenance activities. In planning, whether it is for new

“We have developed flood hotspot lists to proactively deal with issues before the start of the rainy season.”

budget to reduce the backlog in regions and roads have been upgraded in the following areas: Bram Fishersville, Diepsloot, Doornkop/Thulani, Drieziek, Ivory Park, Lawley, Orange Farm, Protea South, Tshepisoong, Protea South (backlog is complete), Poortjie, Mayibuye, Kaalfontein, Slovoville, and Zandspruit where JRA has completed a small portion and Human Settlements is still implementing gravel roads upgrade in this area.

GIS - The science of where?

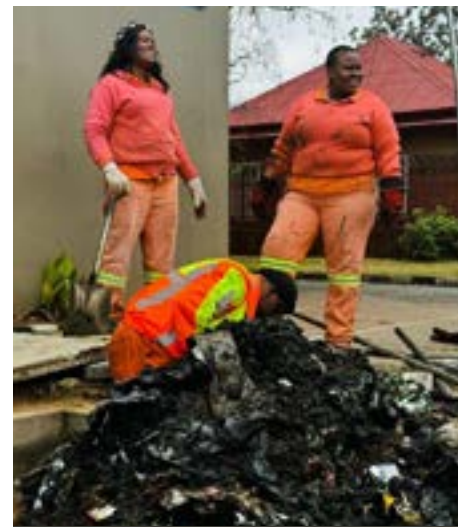
In a data driven age, the GIS becomes a crucial mapping service to visually represent the assets on the JRA's asset register. Spatially mapping assets allows the JRA to strategically plan service delivery efforts so that it provides maximum benefit to the end users and the City as a whole.

Ron Segenhout, GIS Specialist, explains how

projects or maintenance of assets, the most common query received is, "Who owns this property?"

"When it came to the Lilian Ngoyi Street disaster, GIS information was very sought after as everyone wanted to know what services were underground. This information was also used for the planning and budgeting for the reinstatement of the road. During rainy periods, GIS stormwater is needed to show where pipes are and their sizes that could be blocked in flooded areas," says Segenhout.

Future GIS innovation for JRA is online mapping so that all JRA can have GIS in their pocket to provide a better service in planning and management for JRA. Artificial intelligence and image learning can be used for day-to-day use to pick up small problems and report them.



Team unblocking stormwater drains in Roodepoort

In the last Financial year, the JRA GEOMATICS team produced 22896 maps for wayleaves and JRA management information and provided GIS data to 68 consultants for various JRA contracts.

Maintenance ensures longevity

Johannesburg's vast road network spans over 11,816 km and keeping this infrastructure functional is as important as building it. Proactive and reactive maintenance, guided by Visual Condition Assessments (VCA), inform the Road Asset Management Plan (RAMP). Head of JRA Planning, Musa Mkhacane explains,

"The objective of VCA's is to ensure efficient investment in road and related infrastructure by knowing what to do, where and when to do it". The VCA categorises assets such as roads and bridges from very good to very poor conditions and these are documented with estimated budget requirements for the infrastructure investment required to maintain or rehabilitate the road assets.



JRA team cleaning stormwater drains

Unfortunately, budgetary constraints and underfunding have led to a R154 billion maintenance backlog for roads, bridges, and stormwater systems. Mkhacane cautions, "Without immediate action, our road network will continue to deteriorate, which compromises safety and efficiency".

To mitigate this, the Infrastructure Development department rehabilitates bridges and roads according to priority and in line with the available budget.

Regional depots are responsible for routine maintenance from pothole repairs, road skin patching, clearing stormwater drains, skoffelling vegetation, replacing manhole covers, picking litter, road markings, erecting barriers and road signs and gravel road grading, amongst others. These teams are supported by specialised depot teams - traffic signals; motorways; asphalt plant; laboratory; resurfacing; as well as the fleet and plant team ensuring working vehicles and plant equipment. Depots also respond to emergencies such as flooding, or road damage caused by accidents or vandalism.

As Khumo Diphoko, Acting Depot Manager for Region B explains, "Our day begins with reviewing reports from residents and councillors, which helps us prioritise the most urgent issues." She says a significant challenge is addressing road damage caused by other entities and utility companies digging up roads or careless drivers damaging infrastructure. While these disruptions can significantly impact the depot's ability to focus on routine maintenance, Diphoko emphasises the importance of promptly addressing road reinstatements and other damage to prevent further deterioration.

JRA depots experience several key challenges in maintaining roads and infrastructure:

- **Vandalism and theft:** Manhole cover theft threatens the lives and safety of pedestrians and road users. Deliberate and unintended damage to infrastructure such as trucks running over, and damaging stormwater drain covers pose significant risks.
- **Service delivery protests:** Protests often result in road damage, for example burning tyres on the roads, removing or defacing traffic signs, destroying kerbs inlet structures, etc.
- **Aging infrastructure:** Many roads in the regions are outdated and require extensive maintenance.
- **Illegal connections:** Unauthorised connections of sewerage pipes into stormwater systems can cause flooding.
- **Illegal carwashes:** Continuous running water onto road surfaces causes road failure.
- **Dumping:** Illegal dumping blocks water flow under bridges and stormwater channels while communities using stormwater drains as rubbish dumps block the system creating flooding during rainy seasons.
- **Lack of adequate stormwater infrastructure:** This is a major contributor to flooding during rainy seasons.
- **Climate change:** Severe flooding requires adaptation in maintenance strategies.



JRA lab staff testing asphalt levels

“JRA only works on city-owned roads and does not work on proposed, private, national, or provincial roads.”

Despite the challenges, JRA depot managers and their teams remain committed to serving their communities. Manuel Ngoveni, Depot Manager for Region D, emphasises the importance of

.... Continues to page 27 >>>



Manhole inspection on Lambert Street, Roodepoort



JRA team unblocking stormwater drains



Road resurfacing programme

engaging residents, councillors, and community leaders to gather feedback and address concerns. “I enjoy serving my community with dignity and passion as I am also a Soweto resident and want to see the region’s road infrastructure remain in good condition.” His goal is to educate community members to take better care of road infrastructure.

“By investing in this critical maintenance activity, we can enhance safety, improve driving comfort, and extend the lifespan of our roads.”

Emergency response is another critical aspect of the regional maintenance role. Depot managers emphasise the importance of timely emergency responses. “We have developed flood hotspot lists to proactively deal with issues before the start of the rainy season,” explains Ngoveni.

He adds: “During heavy rains, we ensure that all the resources such as jet vac trucks are readily available.” By maintaining a 24/7 standby team and having the necessary tools, they aim to minimise the impact of flooding and other emergencies on residents. To ensure that the road remains safe and functional, regular maintenance from routine to more extensive rehabilitation projects is required and crucial for extending the life of the road. Asphalt is at the core of road building and maintenance. This black, sticky, and highly viscous material comprises bitumen and aggregates like sand, gravel, or crushed stone.

JRA uniquely owns a state-of-the-art asphalt plant producing the essential material that provides smooth, durable, and waterproof road surfaces. The plant has a production capacity of 200 tonnes per hour and 1520 tonnes per day translating into 45 truckloads and enough asphalt to resurface approximately 2.5 km of road, daily.

Asphalt hot mix is used for permanent road repairs, resurfacing, and construction while a cold bagged mix is used for temporary repairs and in low-traffic areas. To ensure the hot mix maintains its optimal temperature during transportation across the city’s regions, truck



JRA team marking roads

drivers are provided with tarpaulins to cover their loads. This helps to prevent heat loss and ensures the asphalt arrives on site ready for use.

The Asphalt Plant and laboratory are in the process of gaining SANAS (South African National Accreditation System) accreditation and SABS (South African Bureau of Standards) certification, conducts regular testing to ensure materials meet stringent quality standards. Jimmy Mhlongo, Asphalt Plant Depot Manager outlines its important function, “Overall, the quality of materials that constitute asphalt is critical, and laboratory testing plays a vital role in ensuring material quality, safety, and performance.”

The move to SABS accreditation further enhances the credibility

and reliability of laboratory testing, supporting the asphalt plant’s commitment to quality and excellence.

The asphalt plant is a vital asset for road maintenance and presents opportunities for commercialisation. Mhlongo elaborates, “The JRA can capitalise on the growing demand for asphalt, generate additional revenue, and contribute to the City’s economy as well as reinforce JRA’s position as a leader in the infrastructure sector”.

Joburg’s road network managed by JRA:

10 566	km paved roads
890	Bridge structures
1 250	km gravel roads
370	Major culverts
320	Lesser culverts
2023	Signalised traffic intersections
115 433	Road/traffic signs
67 787	Stormwater inlets
134 672	Manholes
529	km of stormwater pipes and culverts

Resurfacing: A Crucial Investment in Road Infrastructure

Resurfacing is more than just a cosmetic upgrade; it’s a strategic investment in road safety and longevity. As Chris Mayekiso, JRA Road Resurfacing Depot Manager, explains, “Resurfacing provides a protective layer against the elements, preventing water ingress, traffic wear, and oxidation. This extends the road’s lifespan and also improves its overall durability.”

Mayekiso emphasises the importance of timely resurfacing to prevent more costly repairs in the future. “Cracks, if left unattended, can lead to potholes and other defects that can cause accidents. By sealing these cracks, fox spraying, and resurfacing the road timeously, we can avoid more extensive and disruptive repairs later.”


Beyond safety, resurfacing also enhances driving comfort. “Uneven roads, caused by potholes and poor maintenance, can lead to a

rough and uncomfortable ride. Resurfacing can help to smooth out these imperfections, providing a more pleasant driving experience.” While resurfacing may require a significant upfront investment, it can be more cost-effective than allowing roads to deteriorate. “The cost of repairing potholes and patching roads can quickly escalate,” Mayekiso explains. “By resurfacing proactively, we can avoid these costly and time-consuming repairs.” However, resurfacing is not a one-time solution.

Mayekiso notes that the lifespan of a resurfaced road can vary depending on factors such as the original road surface and the frequency of maintenance, however, 10-11 years is the norm. “Regular inspections and maintenance are essential to ensure the long-term effectiveness of resurfacing.” The JRA’s Resurfacing depot has four patching teams, one crack sealing team, one manhole raising team, one temporary road marking team, and two road resurfacing teams.

The team undertakes most of the resurfacing and sealing work during the day apart from the freeways such as M1, M2, and Soweto Highways which are tackled on the weekends to minimise traffic disruptions. Their goal is to resurface 1.1 lane kilometers daily with a target of 12 431 km surfaced roads City-wide. This is an ever challenging and moving target. Resurfacing is fast-tracked with the in-house asphalt plant, so JRA teams get priority. Approximately 260,000 kilograms of asphalt is used for the 1.1 lane kilometres and milled chips are re-used by depots as material on gravel roads. Despite the challenges faced by road maintenance teams, Mayekiso remains optimistic about the potential of resurfacing to improve road infrastructure: “By investing in this critical maintenance activity, we can enhance safety, improve driving comfort, and extend the lifespan of our roads.”

A collective effort for safe roads

The process of building and maintaining Johannesburg’s road network is a team effort, involving multiple disciplines and departments. From initial planning and design to ongoing maintenance and emergency response, every road represents the combined expertise of planners, engineers, construction crews, and maintenance specialists. While budget constraints and other challenges persist, the dedication of the JRA teams ensures that Johannesburg’s roads remain as safe and efficient as possible for the City’s residents. 



Road resurfacing



JRA team installing kerb slabs to secure stormwater drains



Your Ride, Your City: How You Can Keep Moving

Tips for beating congestion, ensuring a safe and efficient commute through responsible driving habits, and reporting road issues.

By: Mosa Makhlima

The City of Gold is counted as one of the biggest cities globally with thousands of people flocking to live or hustle (legally and illegally) here, each in search of a better life. This movement strains the City's transport system, and the roads are normally very congested even at off-peak hours. It is generally not easy to manoeuvre in Joburg unless one has been around for quite some time or has had the opportunity to study the transport systems and maps around the city.

The JRA's Operations Manager Traffic Engineering, Esther Schmidt, shares these tips for beating congestion and ensuring a safe and efficient commute through responsible driving habits:

What are the different modes of transport for moving around in Joburg?

Public and private transport is available. Also, some prefer walking, running, and cycling (though less common for long-distance commuting). For long-distance commuting the following modes of transport are used:

- Various bus services such as Metrobus, which is owned by the City.
- Rea Vaya: A bus rapid transit system
- Other busses owned by different companies
- Minibus taxis: A popular form of public transport
- Metered taxis and ride-hailing services
- Trains: Metrorail and Gautrain
- Private vehicles: Many people use cars for their daily commute.

It is important to note that the availability and efficiency of these transport modes can vary depending on your specific location within Johannesburg and your destination.

How are the COJ's roads categorised and named?

Categorisation is not city specific, but complies with the national categorisation. National routes are freeways that connect major cities. They form the highest category in the Johannesburg roads classification system and are designated with route numbers beginning with "N" followed by a number. These roads fall under the jurisdiction of SANRAL. Provincial routes (also referred to as major regional routes) are the second category in the Johannesburg Roads Network. They are designated with the letter "R" followed by a number. These roads fall under the jurisdiction of the Gauteng Department of Roads and Transport. The City designates metropolitan routes consisting of "M" followed by any number. Metropolitan roads can include arterials, collectors, and commercial and residential streets.



? When are peak traffic times?
AM peak: 06h30 to 09h00
PM peak: 15h30 to 18h00

Here are some quick tips to help one navigate Joburg's bustling streets:

- Check traffic reports before leaving home - tune in to local radio or use traffic apps.
- Consider using the Gautrain, bus services, or other modes of public transport for faster travel between major hubs.
- Explore Rea Vaya bus rapid transit system for affordable inner-city travel.
- Carpool with colleagues to reduce traffic and save on fuel costs.
- Plan alternative routes to avoid known congestion hotspots.
- Allow extra time during peak hours, especially 06h30 -9h00 AM and 15h30-18h00 PM

Remember, a well-planned commute means less stress and more productivity. Safe travels, Joburg!

Ensuring a Safe and Efficient Commute through Responsible Driving Habits

According to Arrive Alive Festive Season Road Fatality Statistics (2023/2024), 01 March 2024, - Department of Transport: The number of annual road deaths in the five-year period has decreased from 12 921 to 12 436. However, these are great numbers considering that these are actual human beings whose hopes, aspirations, and ambitions were dashed. Most accidents are caused by human error.



How can road users avoid these? As a pedestrian, commuter, or driver?

Road safety is everyone's responsibility.

For Pedestrians:

- Use designated sidewalks and obey traffic signals.
- Look both ways before crossing, even at marked crossings.
- Avoid distractions like using your phone while walking.
- Wear bright or reflective clothing at night.
- Walk on sidewalks whenever possible.

For Commuters:

- Wait for public transport in designated areas.
- Hold onto handrails when standing in moving vehicles.
- Stay alert and avoid distractions during your commute.
- Report any safety concerns to the appropriate authorities.

For Drivers:

- Always obey speed limits and traffic rules.
- Never drive under the influence of alcohol or drugs.
- Avoid distractions like using your phone while driving.
- Maintain a safe following distance.
- Use turn signals and check blind spots before changing lanes.
- Ensure your vehicle is well-maintained with regular check-ups.
- Do not text and drive, if there is a need to use a cell phone, use a hands-free device.

General Tips for All Road Users:

- Stay vigilant and anticipate potential hazards.
- Be patient and courteous to other road users.
- Adjust your behaviour according to weather conditions.
- Plan your journey in advance to avoid rushing.
- If you feel tired or unwell, avoid using the road.

How can one report bad driving habits and where?

It is best to report any acts of reckless and negligent driving instead of approaching the individual because in many instances it results in road rage. Perpetrators can be reported to the City's Call Centre 0860 562 874 or report these activities to SAPS or JMPD.

Your Questions Answered

Do you have a question related to the City's roads, road-related infrastructure or JRA operating procedures that only an expert on such matters can answer? If yes, please forward your question to Askexpert@jra.org.za. The response to your question will be published in the next edition and on JRA social media handles.

Q I have hit a pothole and damaged my car's rim and tyre; how do I claim for damages?

A If you've hit a pothole and damaged your car, or, even worse, been injured, you may be eligible to claim compensation from the JRA.

Q What is a Public Liability Claim?

A A public liability claim allows you to seek compensation for damages or injuries sustained on public property, like a road that wasn't properly maintained. In this case, the poorly maintained road can deteriorate into potholes, and the JRA is responsible for its upkeep.

Q What Can I Claim For?

There are three main types of claims you can lodge with the JRA:

1. Vehicle Damage: If your car suffers damage from hitting a pothole, you can claim for repairs.

2. Property Damage: Damage to property other than your car, caused by a road issue might be covered.

3. Personal Injury: If you're injured due to a pothole or other road defect, you can claim for medical expenses and other losses.

Before You Submit a Claim:

- Make sure the incident happened in Johannesburg on a JRA-managed road, as JRA is not responsible for all roads in Gauteng. You can find a claim form and information on how to determine jurisdiction on the JRA website: <https://www.jra.org.za/claim-for-vehicle-damage/> or email: claims@jra.org.za

Processing Your Claim:

- Gather evidence. Take pictures of the pothole, the damage to your car or property, and any visible injuries. If possible, get witness statements.
- **Submitting Your Claim:**
 - **Download the JRA claim form:** from the website and complete it in full.
 - **Attach all your supporting documents:** This includes pictures, witness statements, repair quotes (or invoices if repairs are complete), and proof of ownership for your vehicle.
 - **Submit your claim:** You can either hand-deliver it to the JRA Head Office (75 Helen Joseph Street, Johannesburg)
- The JRA will investigate your claim to ensure it falls under their jurisdiction and is legitimate.
- If approved, your claim will be sent to the insurance broker for processing, which typically takes four weeks (assuming all documents are submitted).
- Be aware that fraudulent claims will be rejected, and submitting a false claim is a criminal offence.

Remember: The process can take time, so be patient. Following these steps and providing all the necessary documentation will increase your chances of a successful claim.

Q

How can I apply for speed humps and other road safety measures to protect our children and the community from speeding motorists?

A Please submit a Petition along with all corresponding documents to your ward councillor. A Petition is a formal written request signed by the community requesting change of action. The Office of the Speaker is the custodian of Petitions. It is therefore the duty of the Speaker to promote and facilitate a fair and equitable process of considering petitions submitted to the Council in terms of the current petitions process and policy.

The petition process is as follows:

- 1 A petition is submitted to your local ward councillor.
- 2 The ward councillor submits the petition to the Speaker's Office based at the 5th Floor, Forum1, Braam Park, 33 Hoofd Street in Braamfontein.
- 3 The Speaker's Office registers the petition by allocating a petition number and acknowledges receipt in writing, and where applicable, forwards the petition to JRA (or other relevant entity or department) for investigation and reporting.
- 4 The JRA (or department/entity) considers the petition and submits either a progress report or a report and closure form to the Petitions Standing Committee.



IMPORTANT

- Traffic calming can lead to damage and increased maintenance costs, increased noise because of vehicles decelerating and accelerating and negatively affect emergency vehicles.
- Consequently, JRA's Traffic Engineering department advises that traffic calming should only be considered along local access roads where it is geometrically feasible and is supported by the affected community.
- A limited capital budget provision is available for the implementation of traffic calming measures identified through Petitions. Funding is allocated with priority given to traffic calming measures surrounding schools and other community facilities. Should sufficient funding not be available to implement the project during the current financial year, the project will be placed on a priority list for implementation during the upcoming financial year/s, or the community can also pay for approved traffic calming measures to be implemented in line with JRA standards.

JRA Comrades Marathon Runners 2024- Nakanjani

By: Thembile Gule

JRA is incredibly proud of Mahlodi Ramakgapola and Teboho Masedi who brought home honours from the 2024 Comrades Marathon from Durban to Pietermaritzburg. The route is a challenging 87km along KwaZulu-Natal's hilly eastern escarpment, with a total elevation gain of 1,000 meters. Despite not having the recommended training (at least 60km monthly), both runners persevered in the race's spirit of comradeship bringing home the Bronze and Billy Rowan medals respectively.

Seasoned Comrades competitor, Mahlodi, an Artisan in the JRA Facilities department, finished the race in 10 hours and 56 minutes. "I knew I needed more mileage," he admitted, "but I gave it my all, pacing myself and after the halfway mark I alternated between running 15min and walking 10min, and this strategy worked well for me."

Masedi, a Security Officer at JRA's Benrose Depot, impressed with a finish time of 7 hours and 55 minutes. "It was my first race," he said, "amazing but tough, especially the uphill sections." He also attributes his success to the support and love from both family and colleagues.

The race remains a prestigious test of physical endurance, attracting international participants, and these two have flown the JRA flag high!



JRA comrades marathon runners: Mahlodi Ramakgapola & Teboho Masedi



JRA professionals from left to right: Tiego Mohlala, Thuso Moeng, & Thembelihle Shongwe

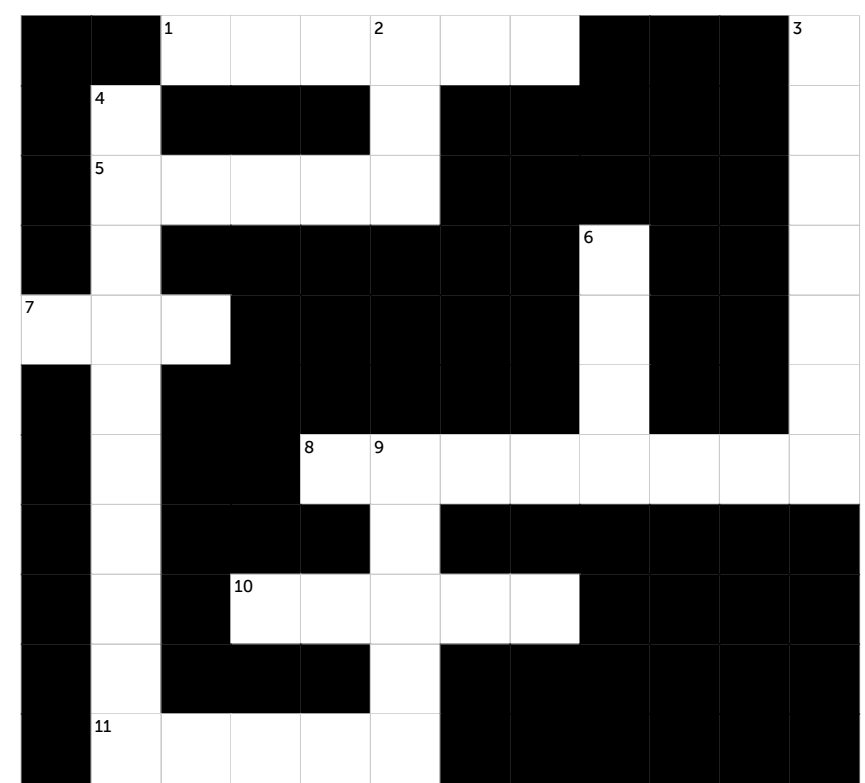
JRA Delegates Embark on Transformative Chinese Training Journey

By: Thembile Gule

Three dedicated JRA professionals have embarked on a six-month training programme in the picturesque province of Zhejiang, China. The delegates, Ms. Thembelihle Shongwe, Ms. Tiego Mohlala, and Mr. Thuso Moeng, are seeking to expand their knowledge in engineering and explore innovative approaches to service delivery.

The training programme, facilitated by the Local Government Sector Education, Training and Development (LGSETA) and the Chinese Culture and International Education Exchange Centre (CCIEEC), aims to equip the JRA delegates with the latest skills and expertise in road infrastructure development and maintenance. By immersing themselves in Chinese culture and interacting with local government officials, the delegates hope to gain valuable insights that can be applied to enhance JRA's operations.

The programme is part of a broader initiative to foster collaboration between South African and Chinese municipalities. LGSETA and CCIEEC have identified several cities in China and South Africa, including Johannesburg, as potential partners for sister city relationships. These partnerships will enable the exchange of knowledge and skills in various areas of local government, such as infrastructure development, urban planning, and public service delivery. By participating in this transformative training programme, the JRA delegates are poised to return to South Africa with a wealth of knowledge and experience, ready to contribute to the agency's ongoing efforts to improve Johannesburg's road infrastructure and enhance the quality of life for its residents.



Across

- 1 _____ machine. A roadworks vehicle used during road maintenance and road construction.
- 5 JRA X (Twitter handle).
- 7 A Tractor Loader Backhoe is a versatile machine used for road construction such as excavating roads and breaking asphalt.
- 8 A JRA _____ is a permit from JRA that allows someone to use a road reserve for a specific purpose such as burying cables or accessing utility lines.
- 10 _____ water drainage system. A drainage system that collects rainfall runoff from across the city and discharges it to the natural water catchments.
- 11 South African term for a traffic light.

Down

- 2 An abbreviation of a Visual Condition Assessment process done to determine the maintenance and rehabilitation needs of roads and roads-related infrastructure.
- 3 Depressions or hollows in a road surface caused by wear and tear, extreme weather conditions, poor drainage, improper maintenance, substandard materials, and erosion caused by water.
- 4 An additive used in asphalt to stabilise the mixture of bitumen and water and prevent the bitumen particles from gathering or collecting into a mass or cluster again.
- 6 An abbreviation for Small, Medium and Micro Enterprises.
- 9 The _____-a-Robot initiative aims to power traffic lights using backup power, be it from solar or generator systems to eliminate traffic disruptions due to electricity loss.

**Be an Active Citizen,
Protect Your City.**

Report Road Related Defects



0860 562 874



Hotline@jra.org.za



www.jra.org.za



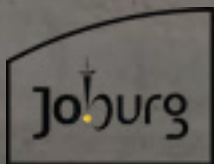
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