



Roodepoort CBD: Transport Master Plan (TMP)

Status Quo Summary & Initial Concepts



April 2021

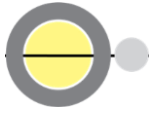




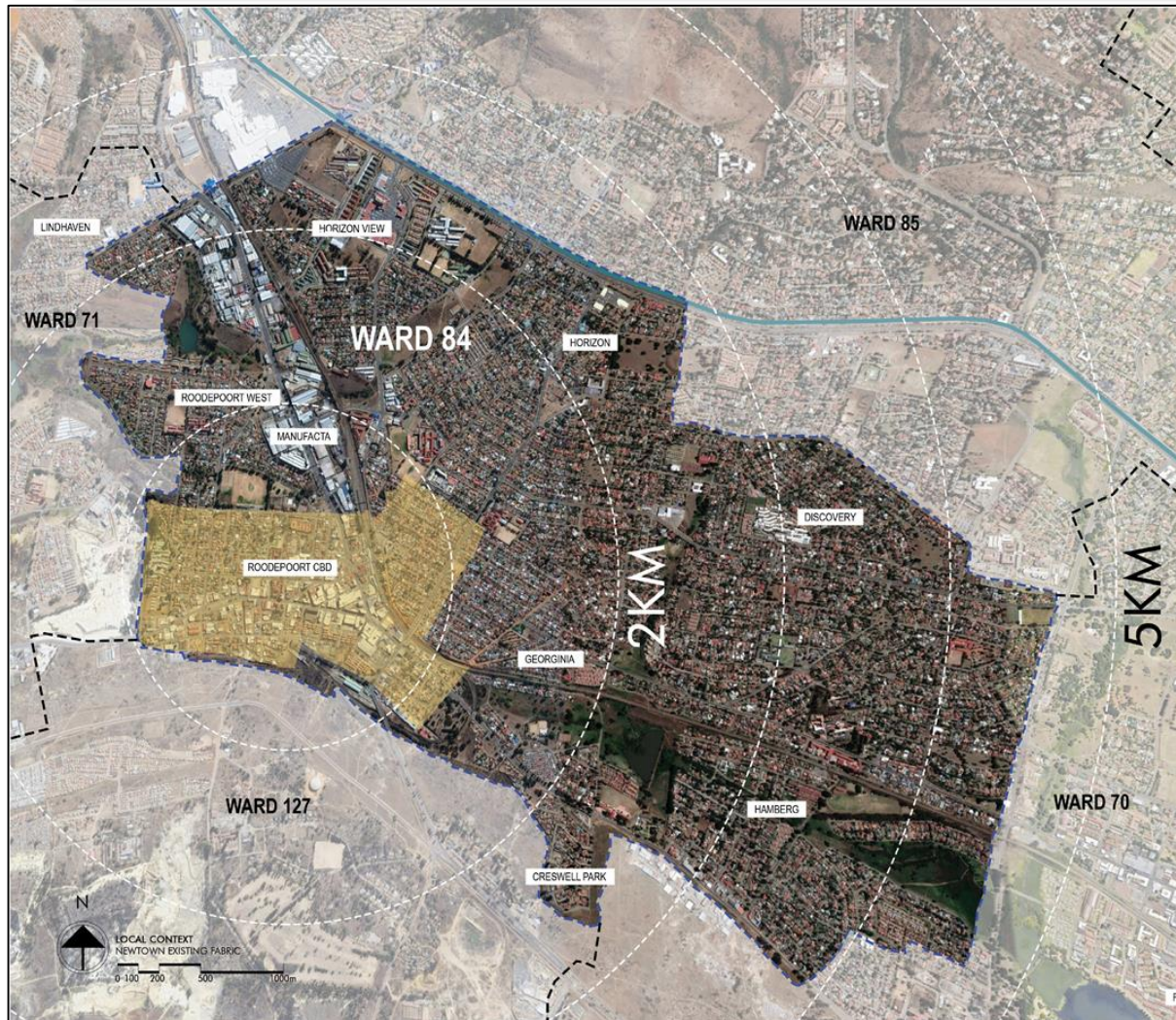
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Introduction – Roodepoort CBD



- Roodepoort in Region C of CoJ municipality - western edge of historic mining belt
- Central point to areas in the west of the city (Kagiso, Krugersdorp South, Soweto, Bram Fischerville & Dobsonville)
- Ward 84 including areas such as Horizon View, Roodepoort West, Manufacta, Roodepoort CBD, Georgina, Creswell Park, Hamberg, Horison and Discovery
- Industrial, residential, retail and sparse commercial activity.
- Decline in economic growth in the CBD in comparison to neighbouring Randburg & Sandton



Introduction – Why a TMP?

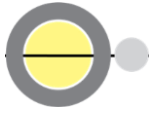


- Roodepoort CBD is classified as CoJ's Municipal and Transport node

SUMMARY OF 2018 TOD PRECINCT IMPLEMENTATION FRAMEWORK:

- Roodepoort CBD Urban Decay
- Inefficient transport systems in the CBD
- Congestion and traffic issues
- Poor urban connectivity
- Poor urban safety and management
- Lack of social and economic amenities and infrastructure





TMP Objectives



Address the chaotic transport environment
(walking, cycling, taxis, bus and rail station environment)

Objectives

The TMP and urban development opportunities will:

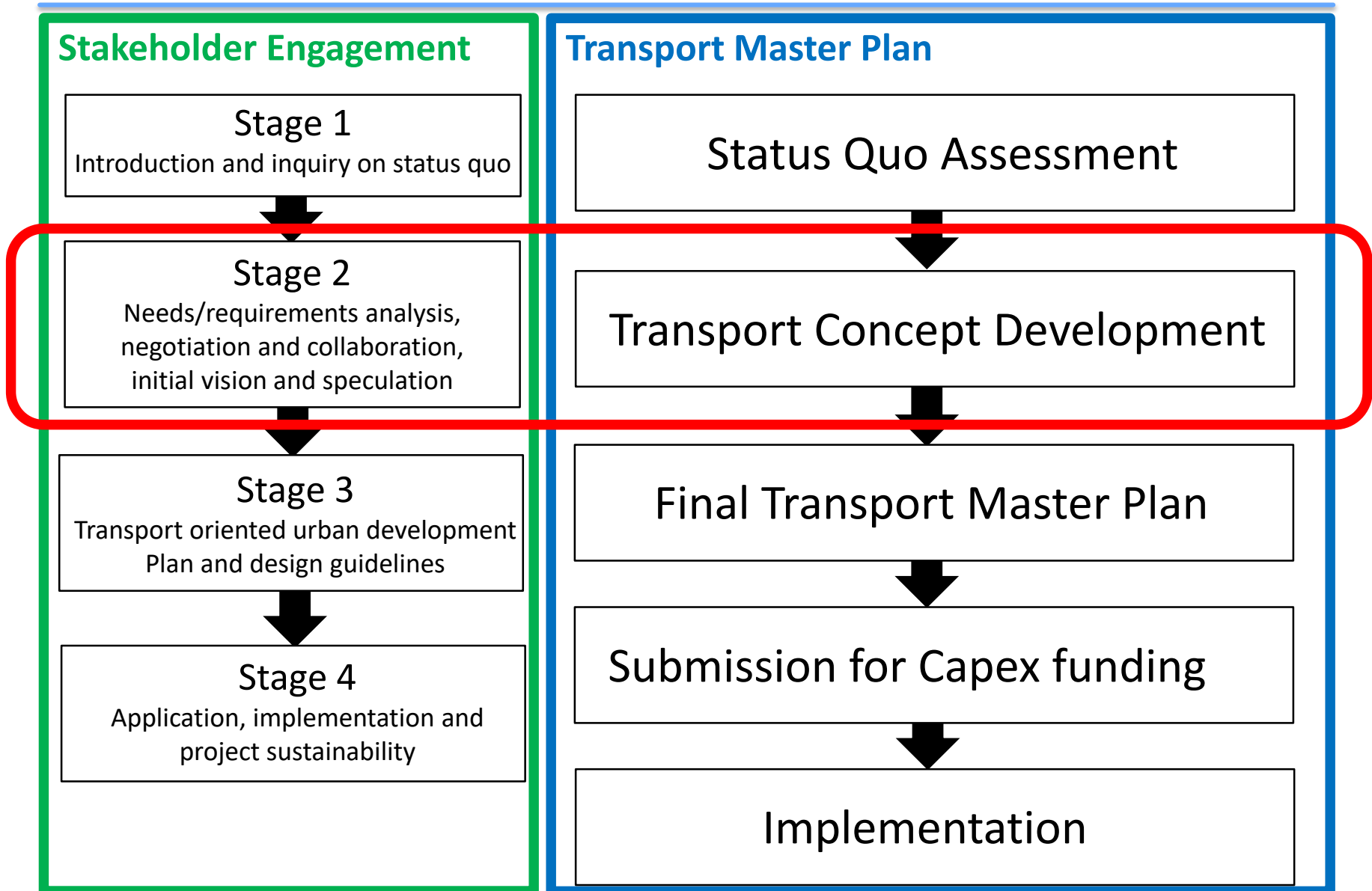
- ① Create a **compact, well-connected** neighbourhood that prioritises **pedestrian movement and Non-Motorised Transport (NMT)**;
- ② Building connective and accessible **public spaces**;
- ③ Promoting **access and use of public transport, walking and cycling** that can enable land use development and investments;
- ④ Promote and enable **mixed land use activities**;
- ⑤ Limit on-street parking and more pro-active **management of parking**;
- ⑥ **Reducing dependency on private cars**; and
- ⑦ Identify possible interventions **to improve road safety**.

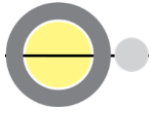
CoJ's 9 Strategic Thrusts - Strategic Integrated Transport Plan Framework

	Restructure and integrate the city		Maintain, improve, extend & integrate transport infrastructure		Actively engage citizenry in improving road safety
	Provide quality public transport and NMT		Support economic growth through improving freight		Plan and regulate the transport system
	Manage congestion, travel demand and parking		Transform the transport sector		Resource and finance the transport plan

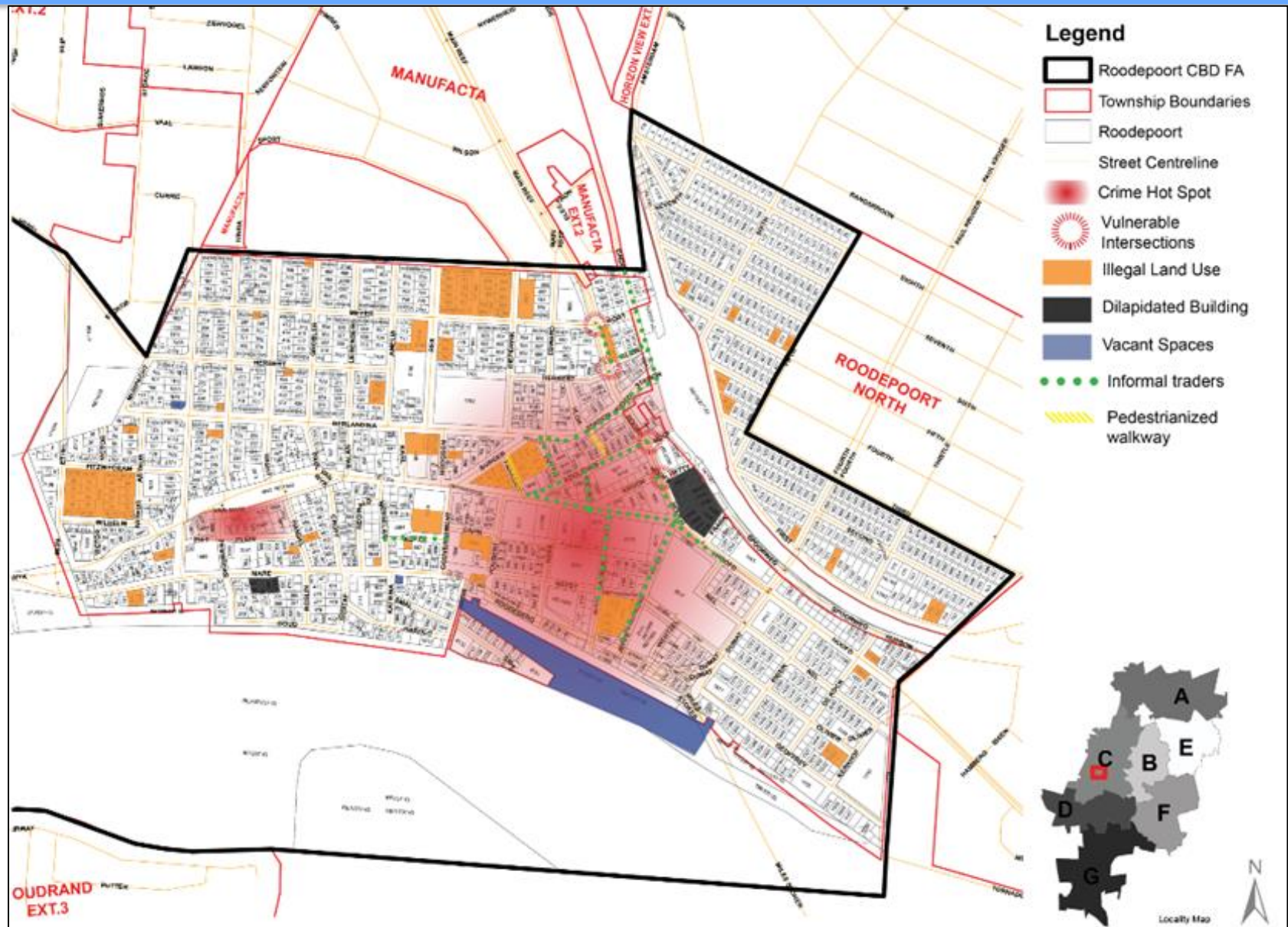


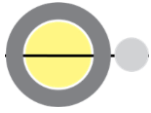
TMP Process



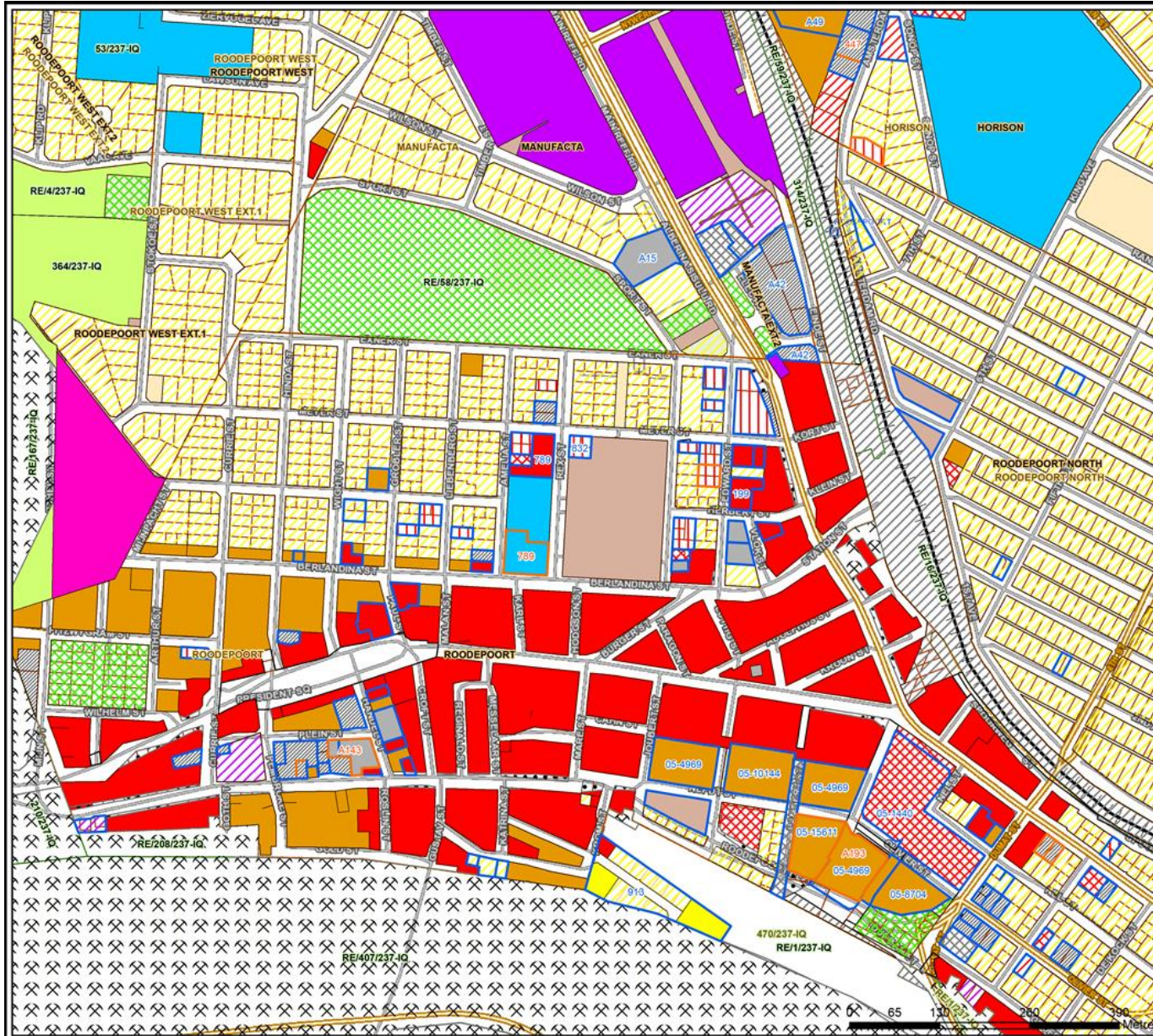


Status Quo – Safety





Status Quo – Existing CoJ Land Use



City of Johannesburg
CORPORATE GEO-INFORMATICS

Legend

Amendment Scheme

STATUS

- CURRENT
- HISTORY

Use Zone - A Series: Colour

ZONE_DESC

- Agricultural
- Business 1
- Business 2
- Business 3
- Business 4
- Cemetery
- Demarcated Mining Land
- Educational
- Existing Public Roads
- Government
- Industrial 1
- Industrial 3
- Institutional
- Municipal
- Parking
- Private Open Space
- Proposed New Roads and Widening
- Public Garage
- Public Open Space
- Residential 1
- Residential 2
- Residential 3
- Residential 4
- S.A.R.
- Special

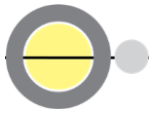
- Registered and SG Approved Stands Labels
- SG Approved Stands
- Registered Stands
- Proclaimed and SG Approved Township Labels
- Proclaimed Townships
- Registered and SG Approved Farm Labels
- SG Approved Farm Portions
- Registered Farm Portions
- Open Spaces

1:5 089

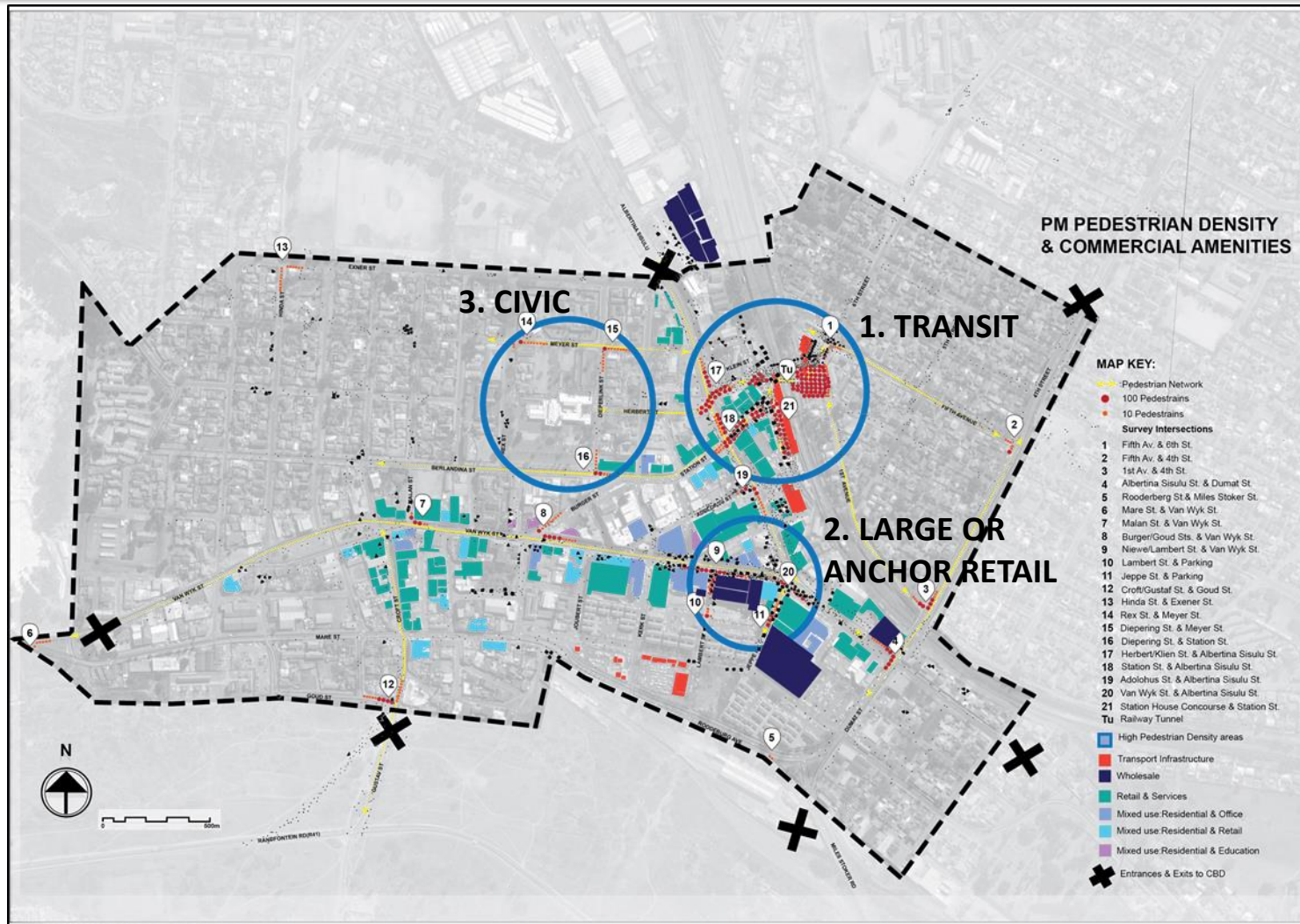
PREPARED BY:

DATE:
Thursday, September 17, 2020

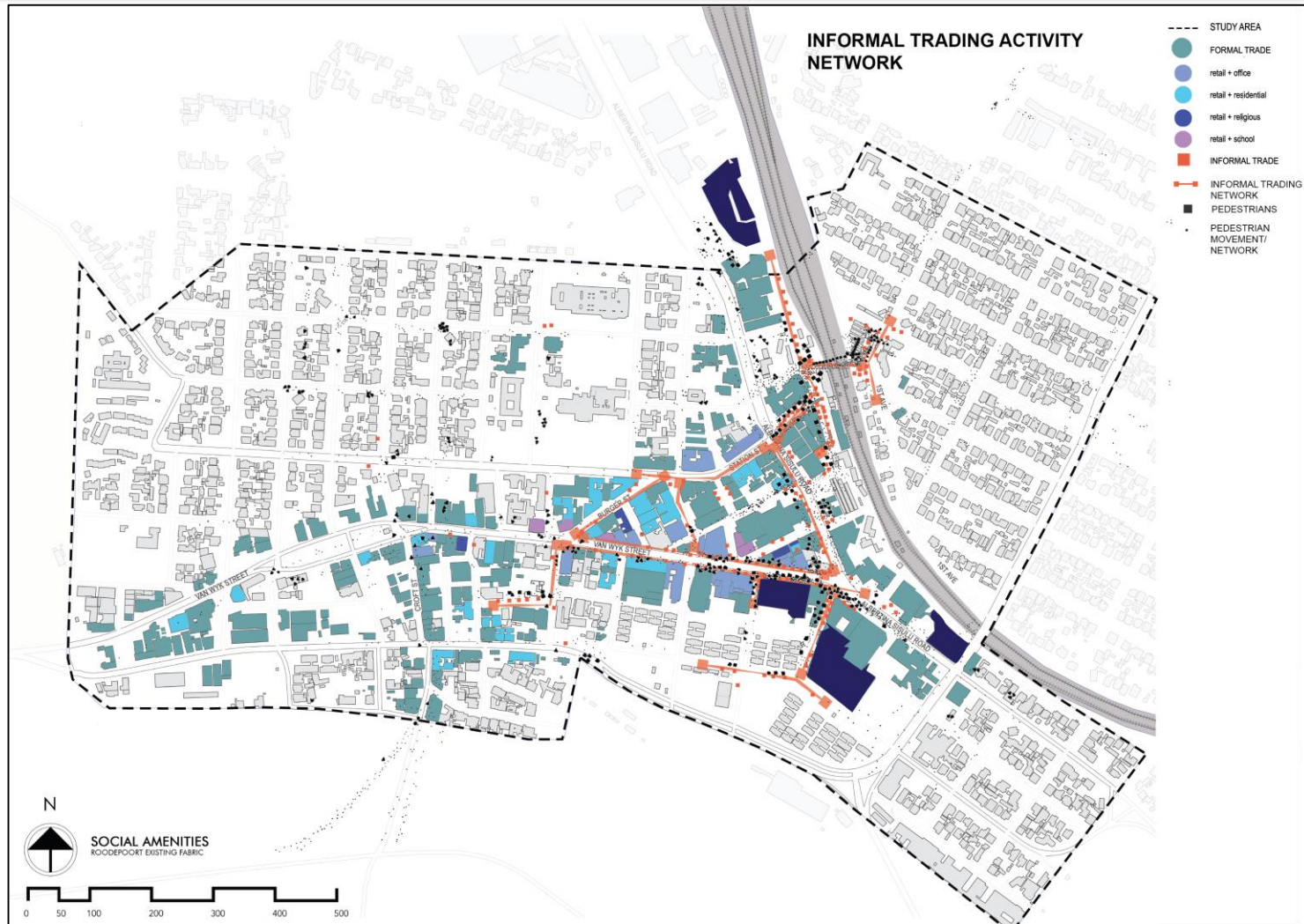
a world class African city



Status Quo - Pedestrian Network & Amenities



Status Quo - Trading "Informal" Network



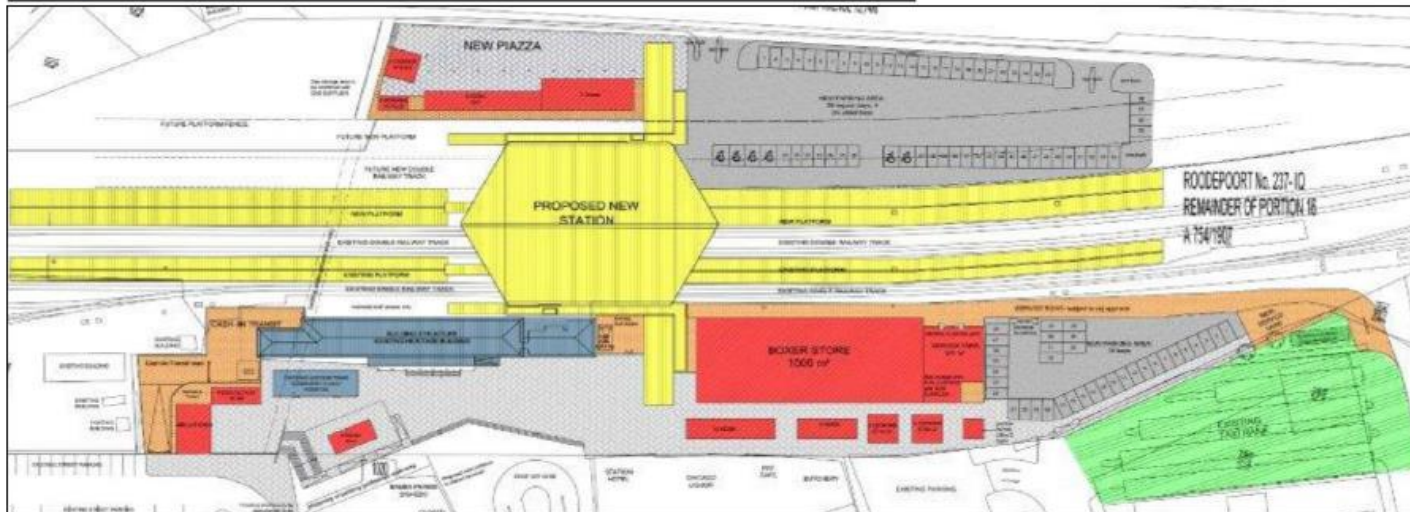


Status Quo – Rail Census 2018



Gauteng Rail Passenger Census 2018							GAUTENG WEST					
Number of Passengers Entering and Exiting Stations												
Station	IN						OUT					
	00:00	05:00	08:30	15:00	>18:00	Total	00:00	05:00	08:30	15:00	>18:00	Total
	<05:00	08:30	15:00	18:30			<05:00	08:30	15:00	18:30		
PRINCESS	389	1505	1394	1084	52	4424	94	648	1111	717	45	2615
HORISON	0	63	421	515	0	999	0	237	1351	205	0	1793
ROODEPOORT	0	691	1256	652	207	2806	0	540	1286	3215	266	5307
HAMBERG	11	251	338	33	0	633	16	82	196	116	38	448
FLORIDA	355	600	899	809	0	2663	276	325	613	1034	65	2313

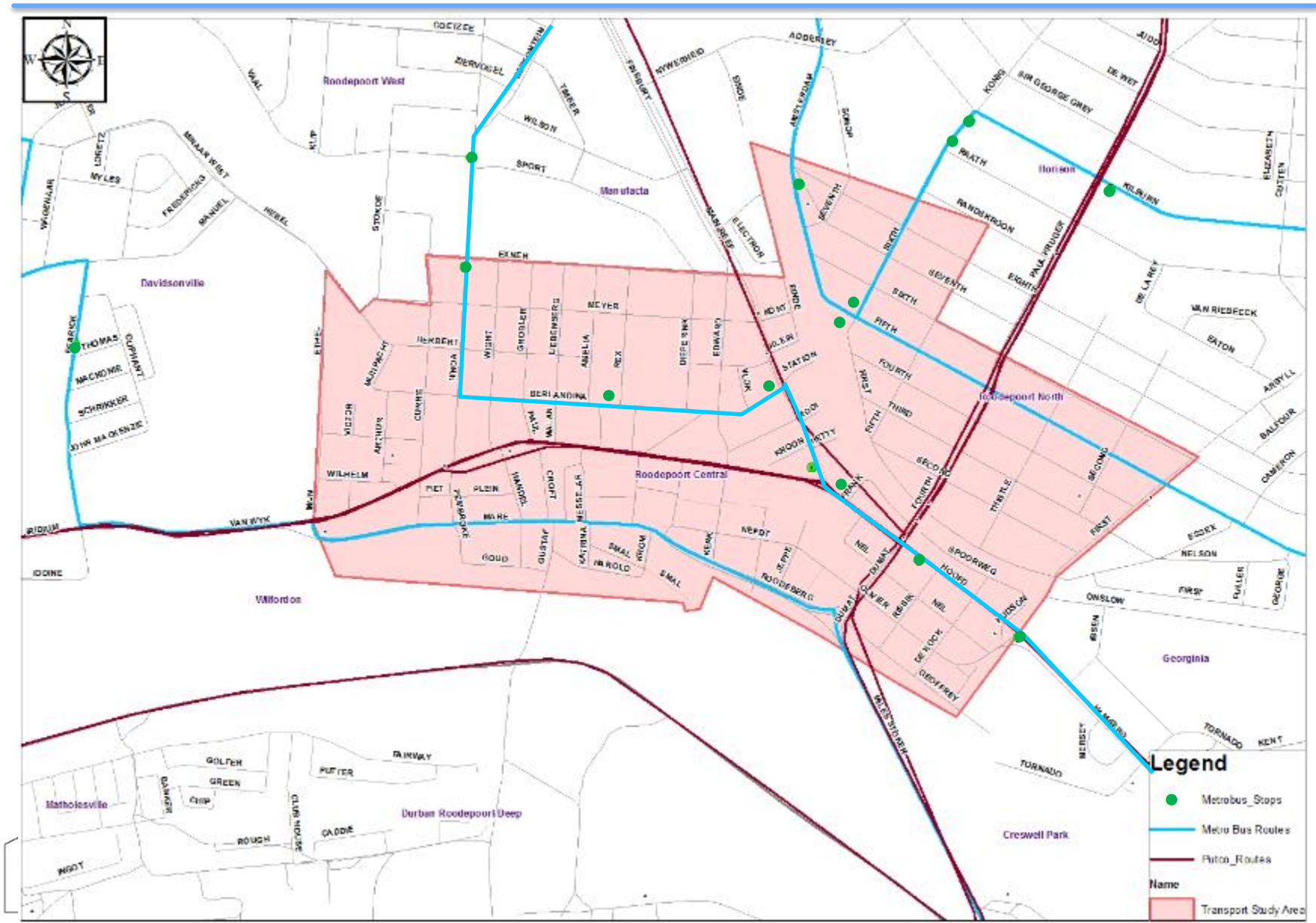
Proposed Development – Roodepoort Station



- Connective bridge over railway
- Boxer Store for station precinct
- Ongoing engagements to ascertain detail of development



Status Quo – Existing Bus Routes





Status Quo – Taxi Surveys



- Dates: 12, 17 and 19 November 2020
- 9 taxi ranks were surveyed
- Approximately 3 193 unique vehicles observed in Roodepoort CBD taxi ranks
- Approximately 39 162 passengers observed in Roodepoort CBD taxi ranks
- Approximately 15 680 passengers are alighting and 23 482 are boarding
- Total of 7 723 vehicle trips were observed

Taxi Ranks Surveyed

Note:

Numbering of ranks only a numerical reference.

Names shown below

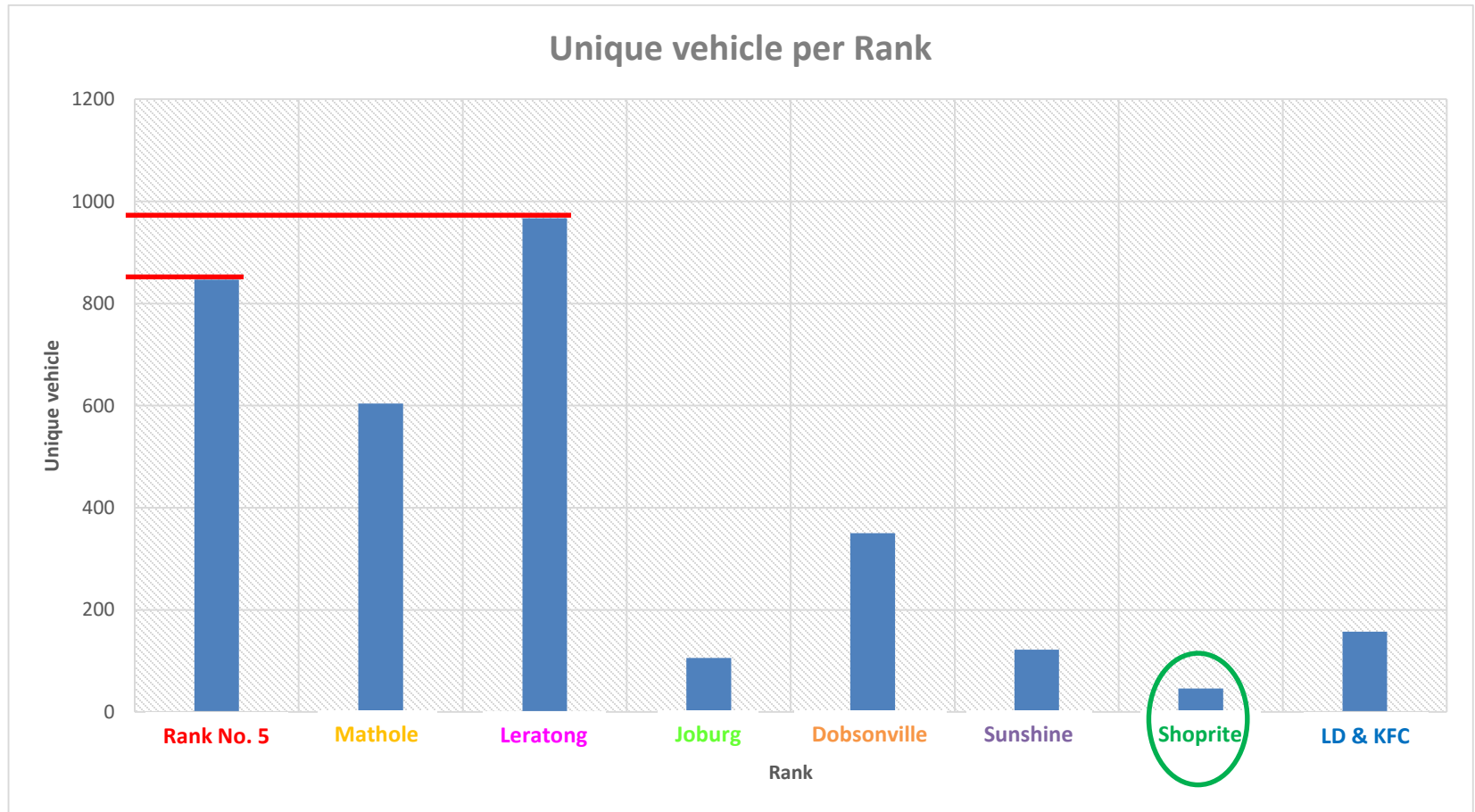


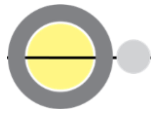


Survey Outcomes - Unique Vehicles



There are approximately 3 193 unique vehicles observed in Roodepoort taxi ranks



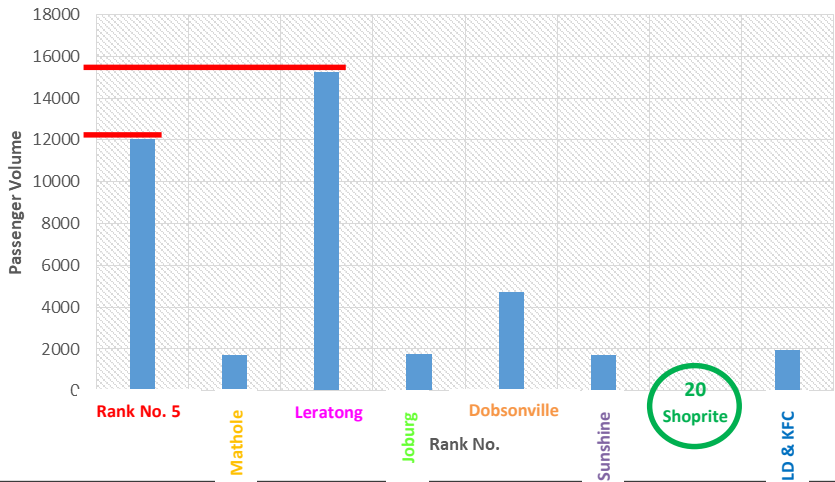


Survey Outcomes - Passengers

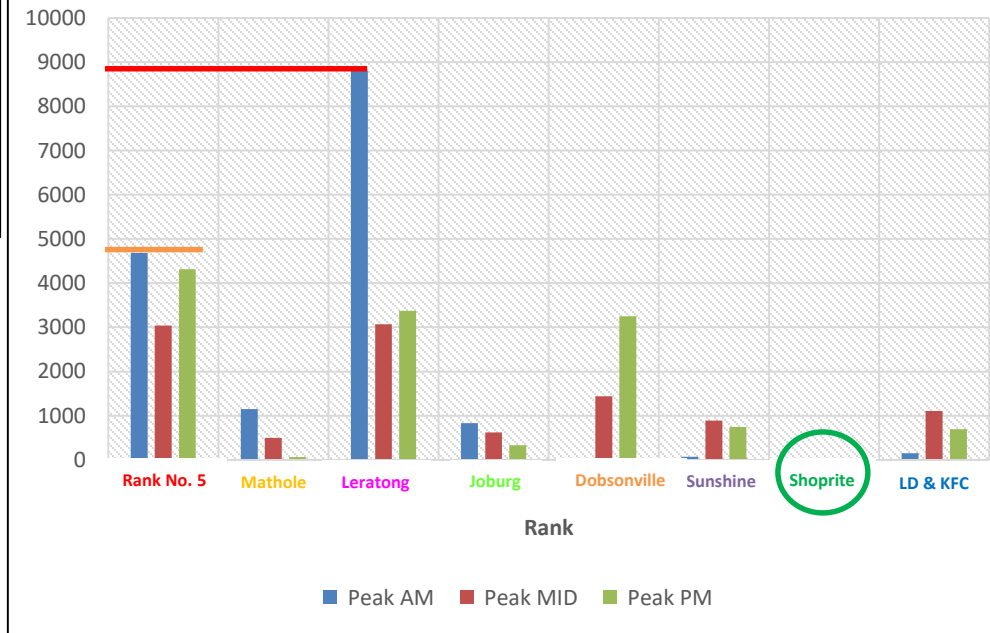


There are approximately 39 162 Passengers observed in Roodepoort taxi ranks

Total Passenger Volumes Per Rank



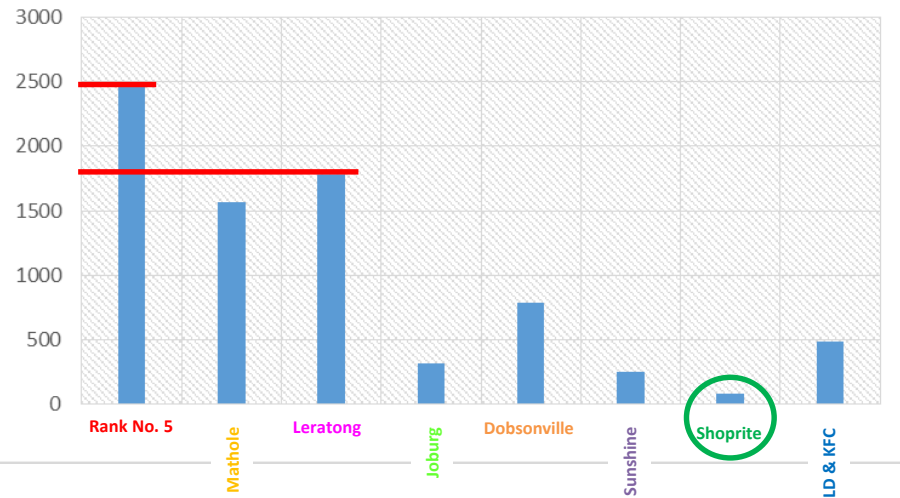
Passenger Volumes Per Rank Per Peak



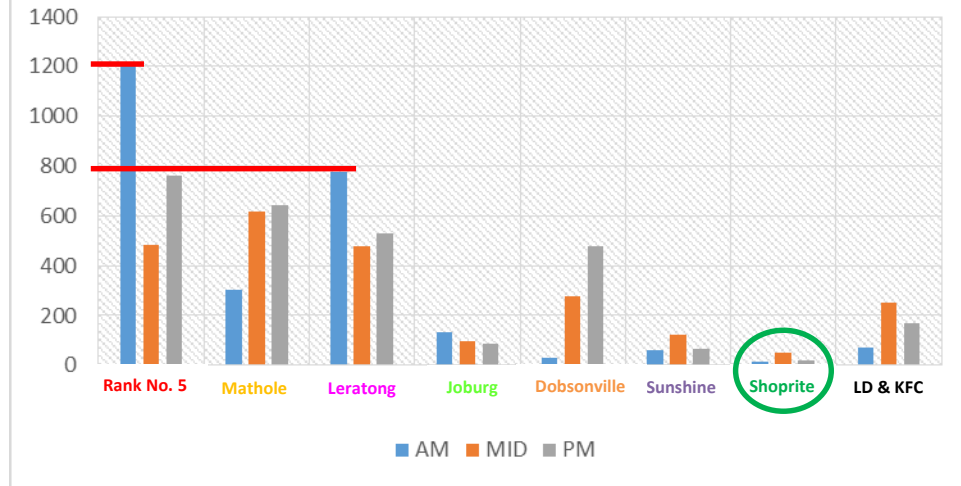
Survey Outcomes - Vehicle Trips

Total of 7 723 vehicle trips were observed

Total Trips per Rank

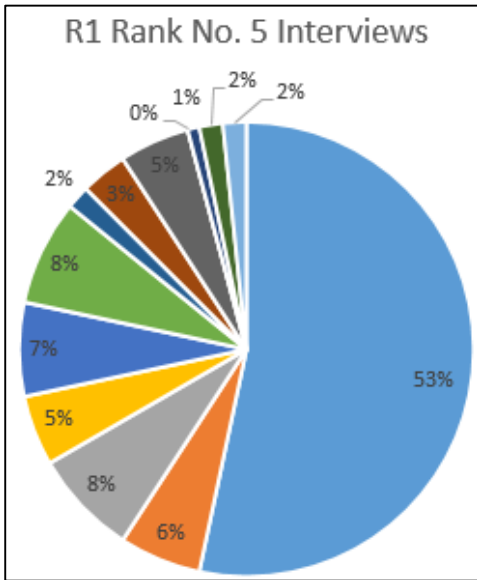


Total Trips per Rank in Peak period

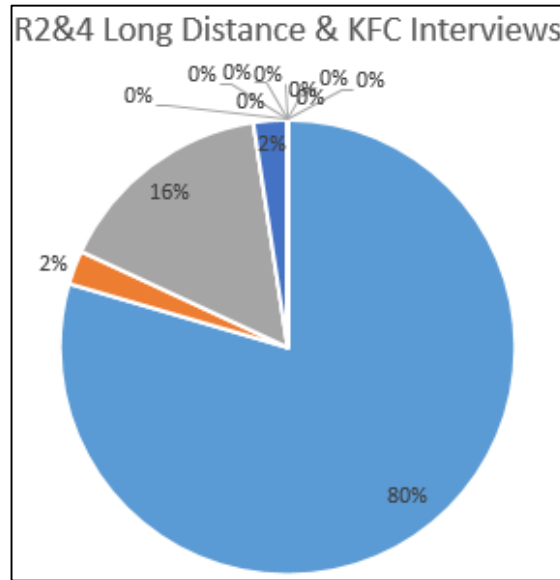


Survey Outcomes – Passenger Interviews

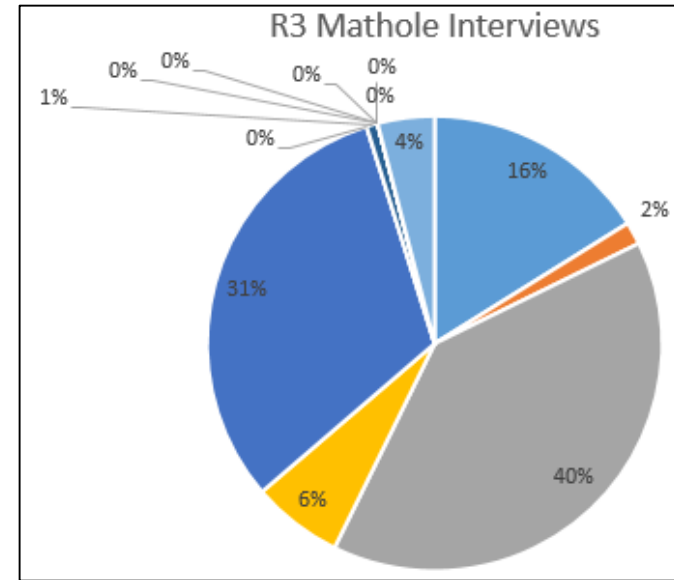
- Satisfied
- Clean environment
- Ablutions (more and maintain)
- Water
- Shelters
- Signage
- Seating
- Trader stalls
- More space
- Security
- Universal access
- Prices (lower for children)
- Taxis (new, clean or more)



53% Satisfied
Signage
Ablutions
Shelters
Seating
Clean environment
Water
More space
Trader Stalls
Prices
More/New taxis
Universal Access



80% Satisfied
Ablutions
Shelters
Other:
Taxi drivers are rude



16% Satisfied
Ablutions
Shelters
Seating
Other:
Taxi drivers are rude
Durban Deep service very poor



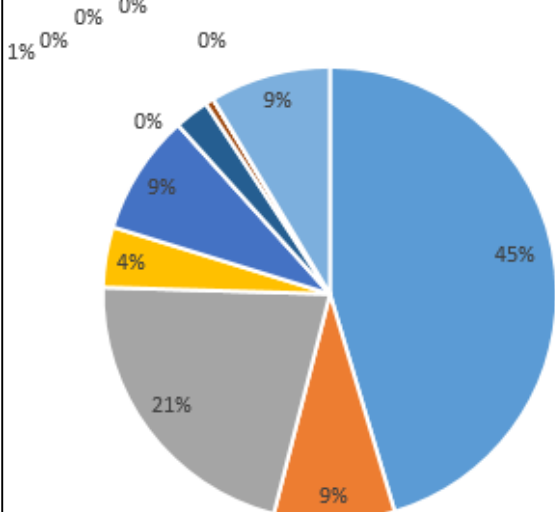
Survey Outcomes – Interview Summaries

(cont.)

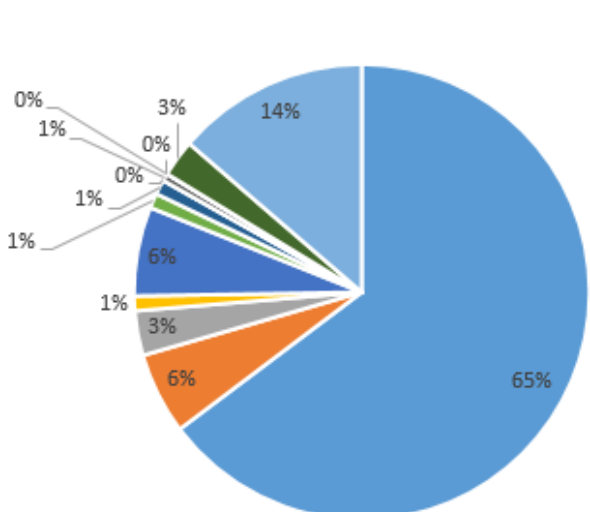


- Satisfied
- Clean environment
- Ablutions (more and maintain)
- Water
- Shelters
- Signage
- Seating
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- Prices (lower for children)
- Taxis (new, clean or more)

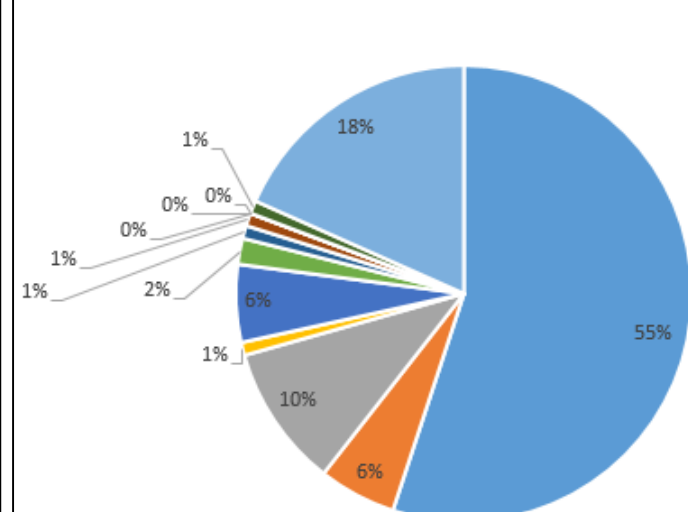
R5 Leratong Interviews



R6 Joburg Interviews



R7 Dobsonville Interviews



45% Satisfied

- Signage
- Ablutions
- Shelters
- Seating
- Clean environment
- Water
- More space
- Prices
- More/New taxis
- Other:
- Taxi drivers are rude

65% Satisfied

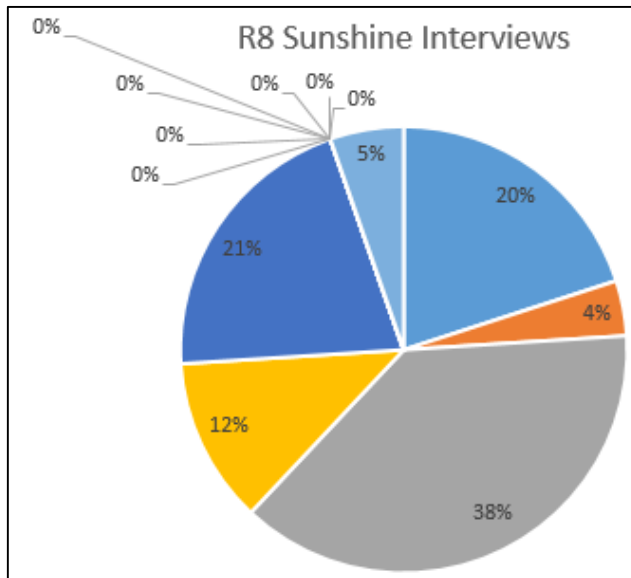
- Signage
- Ablutions
- Shelters
- Seating
- Clean environment
- Water
- More space
- Prices
- Other:
- Taxi drivers are rude
- No other means of transport

55% Satisfied

- Signage
- Ablutions
- Shelters
- Seating
- Clean environment
- Water
- Trader stalls
- Prices
- More/New taxis
- Other:
- Bad driving

Survey Outcomes – Interview Summaries (cont.)

- Satisfied
- Clean environment
- Ablutions (more and maintain)
- Water
- Shelters
- Signage
- Seating
- Trader stalls
- More space
- Security
- Universal access
- Prices (lower for children)
- Taxis (new, clean or more)

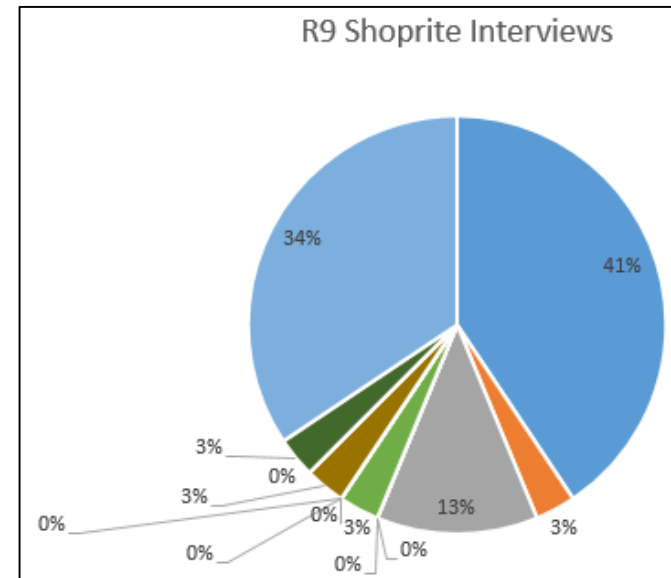


20% Satisfied

- Ablutions**
- Shelters**
- Seating**
- Clean environment**
- Water**
- More/New taxis**

Other:

Lack of customer service

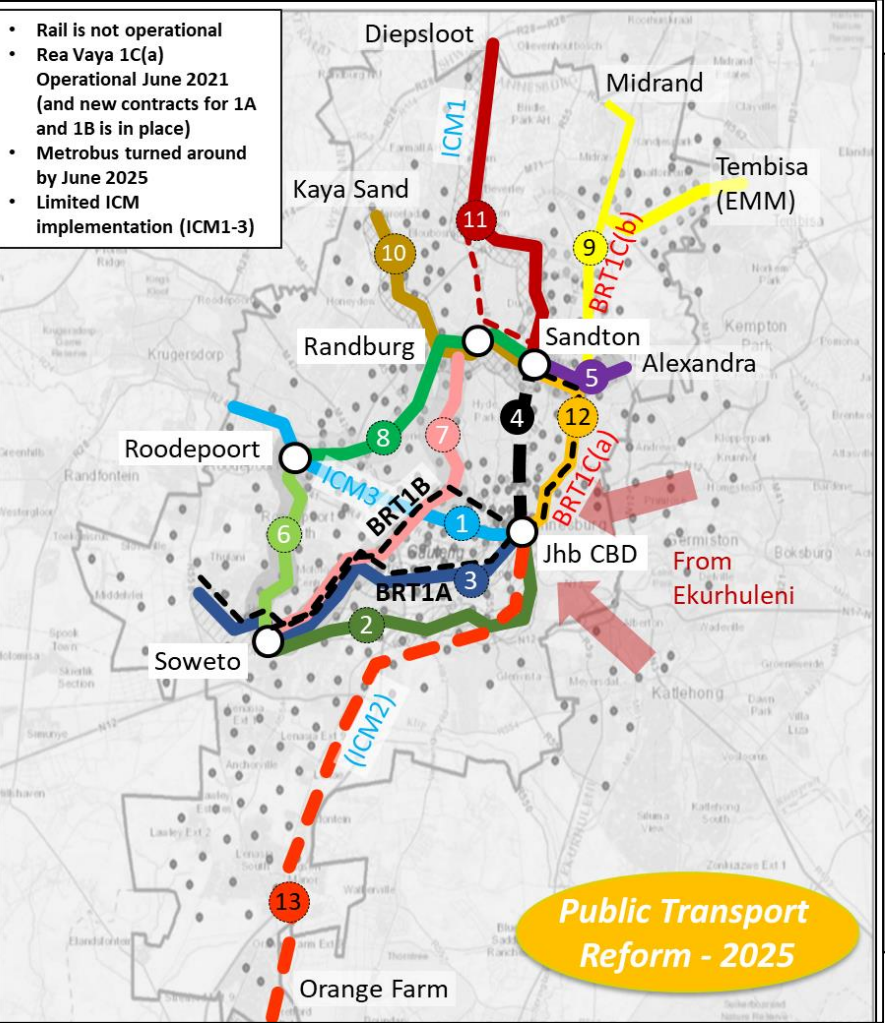


41% Satisfied

- Signage**
- Ablutions**
- Seating**
- Clean environment**
- Prices**
- More/New taxis**

CoJ Planned ICMs – 2025/2040

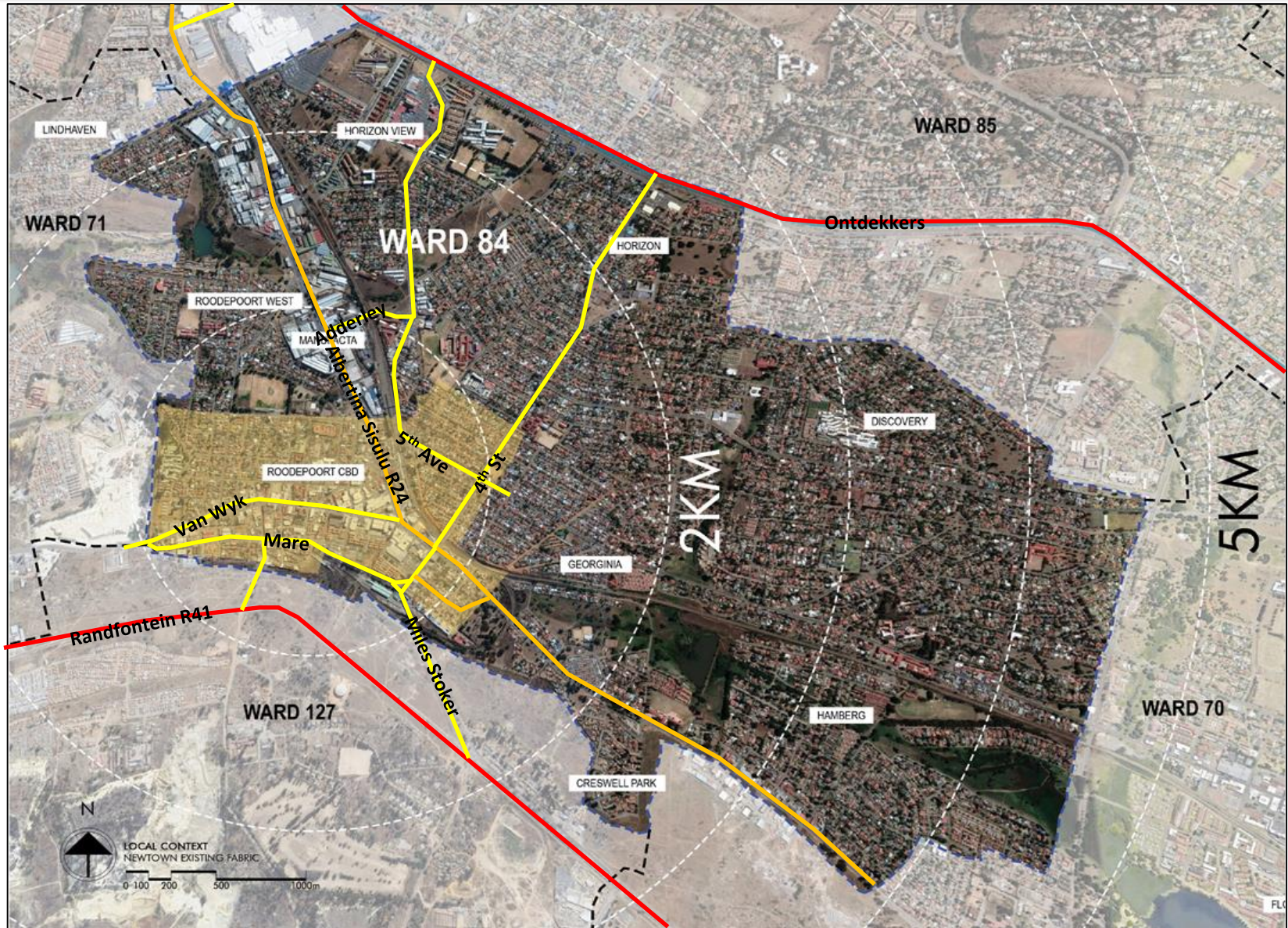
- Rail is not operational
- Rea Vaya 1C(a) Operational June 2021 (and new contracts for 1A and 1B is in place)
- Metrobus turned around by June 2025
- Limited ICM implementation (ICM1-3)

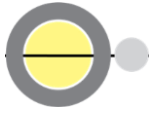


Item No	IPTN Corridor	Demand per hour (2025)	Corridor Length (km)	Long Term Intervention (2040-)	Proposed interim solution (2019-2025)
ICM3	1 Roodepoort to CBD	13 980	25	Rail	Metrobus (MB5)
	2 Soweto to CBD via Chris Hani Road	19 589	28	Rail	Extend C2/Provincial subsidised services
	3 Soweto to CBD via Soweto Highway	21 847	26	Rail	Continue to operate T1 & T2
4	CBD to Sandton	8 111	15	Rail	Provincial subsidised services/Gautrain new model/Rea Vaya 1C(a) via Louis Botha
5	Alexandra to Sandton	5 258	8	BRT	Rea Vaya Phase 1c (a)
6	Soweto to Roodepoort	5 269	22	BRT	Provincial subsidised services
7	Soweto to Randburg	5 269	27	BRT	Provincial subsidised services
8	Roodepoort to Randburg	4 350	15	BRT	Metrobus (MB4) Provincial subsidised services
9	Tembisa to Sandton	12 155	28	BRT	Rea Vaya Phase 1C extended to Tembisa in co-operation with Ekurhuleni
10	Kaya Sands to Randburg,	5 971	20	Articulated Bus	Metrobus
ICM1	11 Diepsloot to Fourways and Sandton	5 680	14	Articulated Bus	Metrobus
	12 CBD to Sandton via Louis Botha Avenue	1 677	17	Articulated Bus	Rea Vaya Phase 1C (a)



Existing Wider Road Network



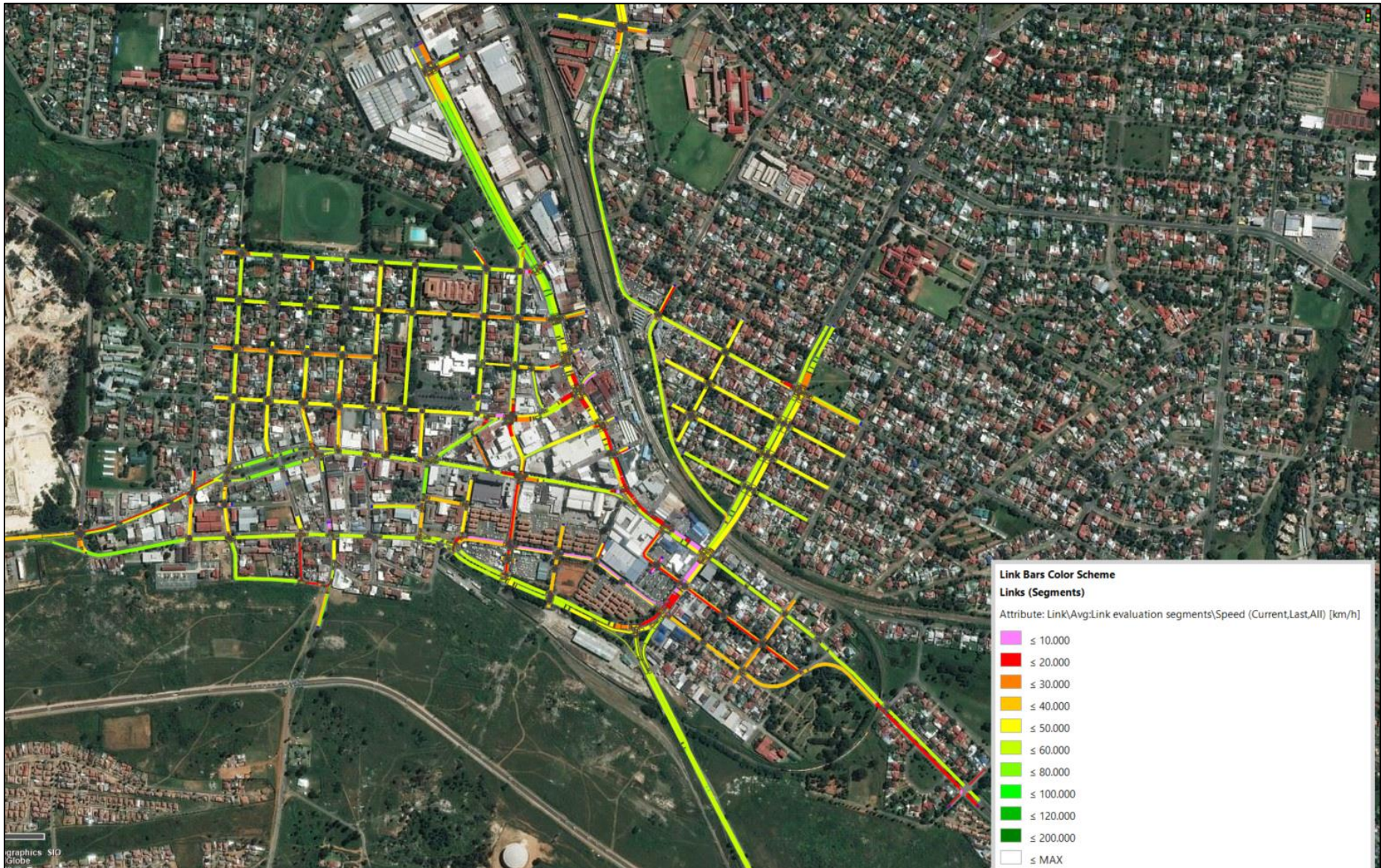


Existing Wider Road Network – Flow AM



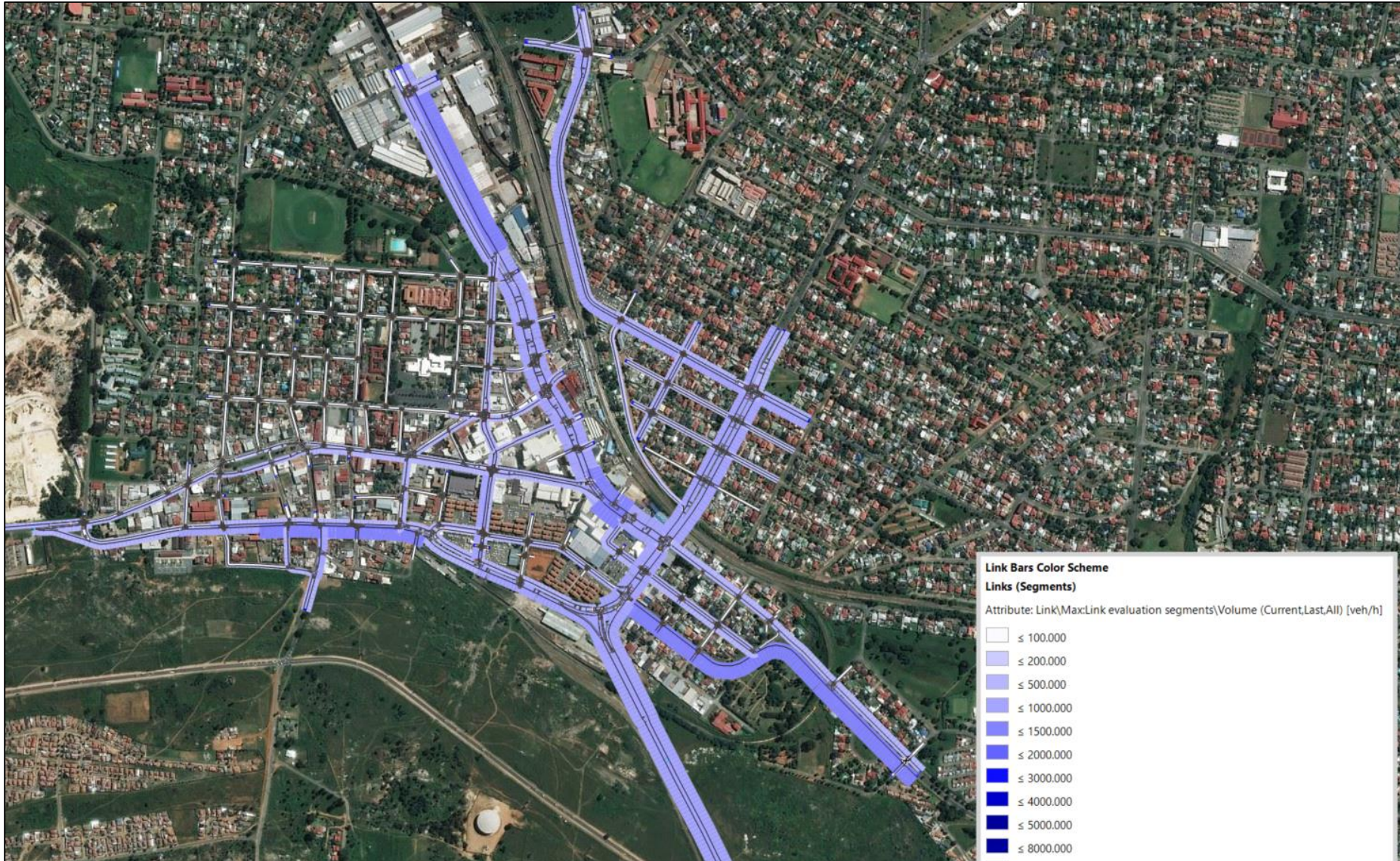


Existing Wider Road Network – Speed AM



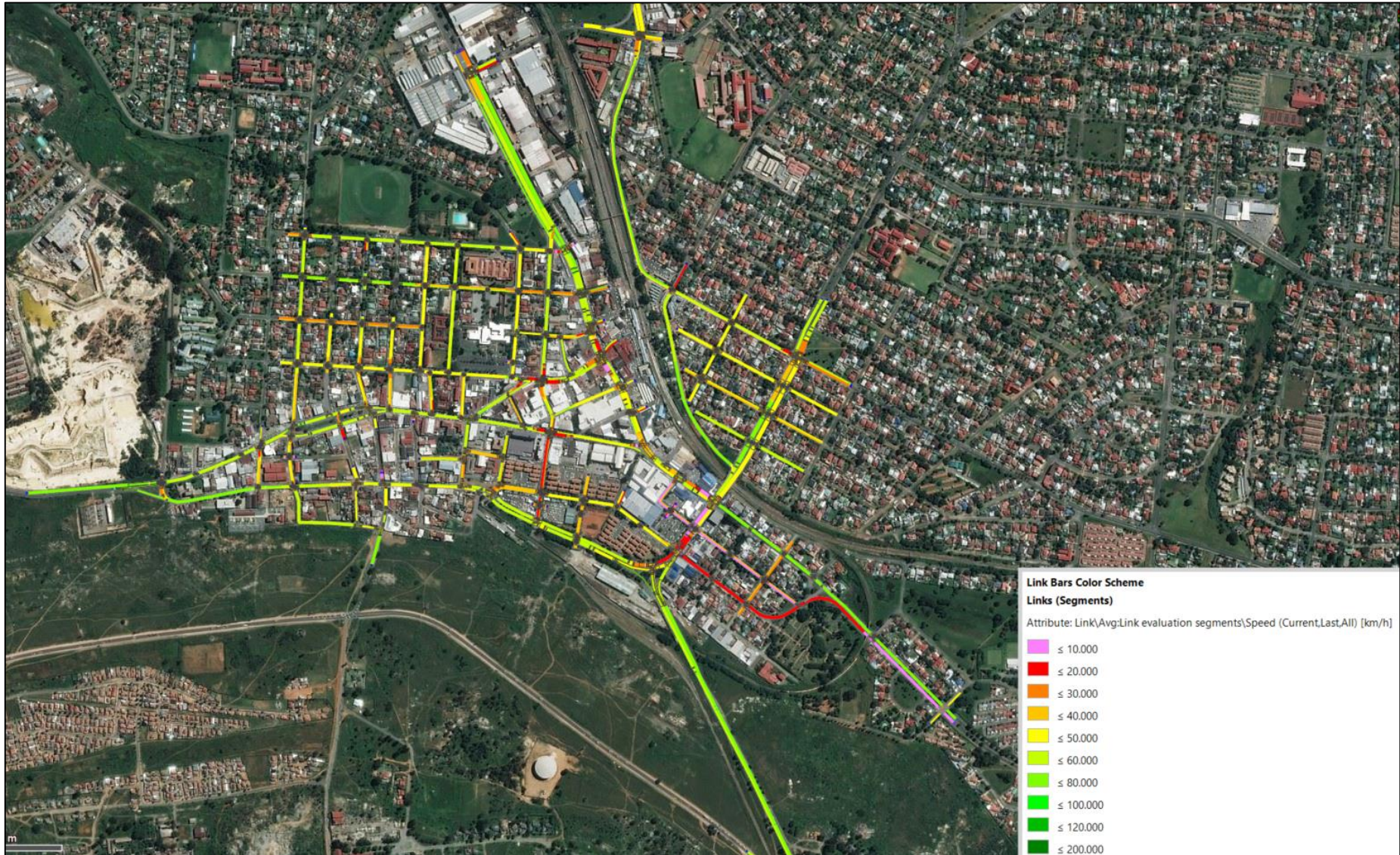


Existing Wider Road Network – Flow PM

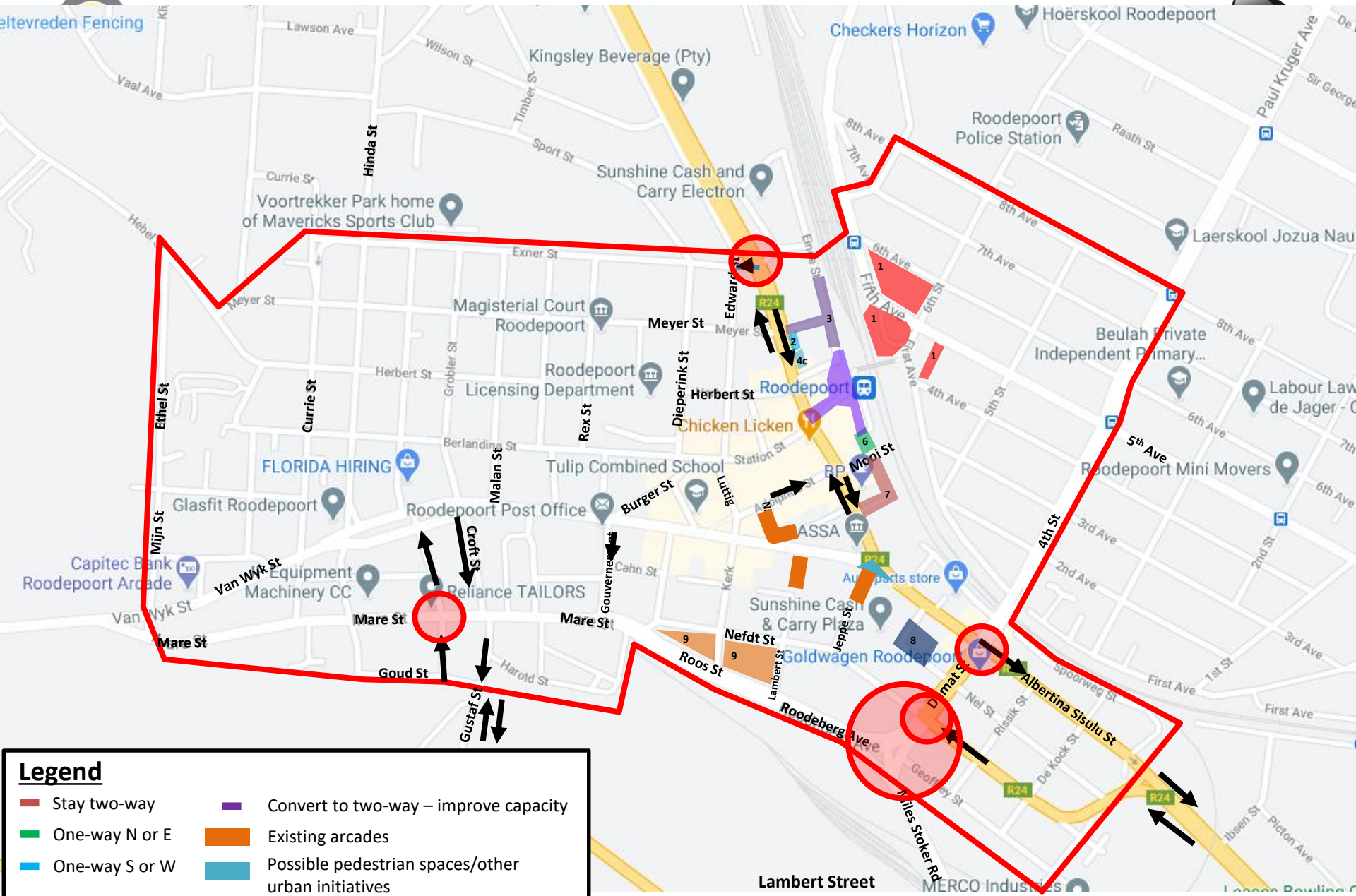




Existing Wider Road Network – Speed PM



Current Road Network Configuration: Problematic Intersections



Legend

- Stay two-way
- One-way N or E
- One-way S or W
- Convert to two-way – improve capacity
- Existing arcades
- Possible pedestrian spaces/other urban initiatives

Parking and stop facilities with improved pedestrian width required along all one-ways + good intersection crossings

Lambert Street
possible good link for NMT to the south if developed south of rail



Status Quo - Parking Surveys/Observations



High usage:

- Burger Street (M to L)
- Paragon Street (M to L)
- Adolphus Street (H) (L)
- Kroon Street (H) (L)
- Station Street (from Rex to AS) (M to L)
- Van Wyk (from Luttig/Kerk to AS) (S to M)

Moderate usage:

- Rex Street (Clinic) (M)
- Dieperink Street (Civic Centre /Licencing Department) (S to M)

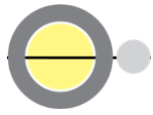
Low usage:

- Berlandina/Station Street (from Grobler to Rex) (S)
- Van Wyk (from Hinda to Croft) (L)
- Geoffrey/Olivier Street (S)

Legend

- Formalised On-street Parking (±885 bays)
- Regular Informal On-street Parking
- Illegal On-street Parking or Taxi Holding
- Loading Bays
- Public Off-street Parking (±560 bays, ±60 used by taxis)

- PA1 Sunshine – **High usage** 70-95% throughout the day, **30% taxis holding**
- PA2 Station Square – **Low usage** 30% AM, **High usage** 70-113% rest of the day
- PA3 Licencing Department – **Moderate usage** 40-80% throughout the day (50 bays open)
- PA4 – Magistrates Court- **High usage** 95% AM-Midday, **Moderate usage** 30-50% Midday-PM (150 bays open)



TMP Vision – Initial Concepts



Objectives

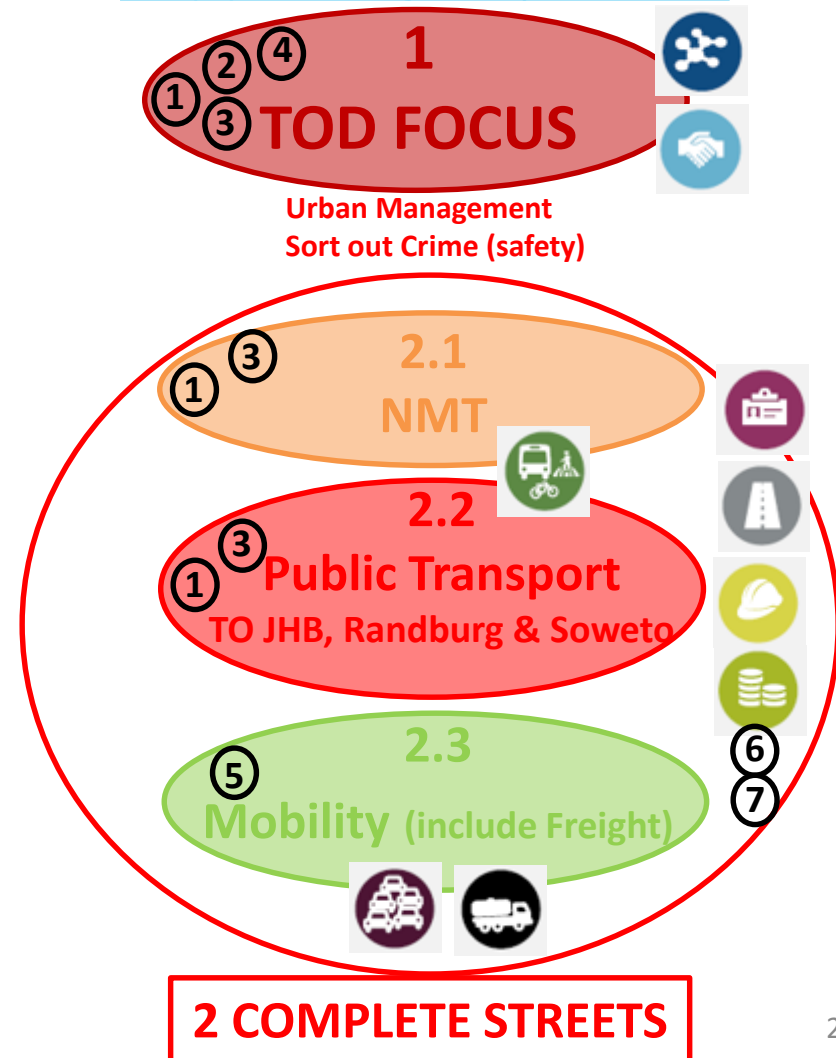


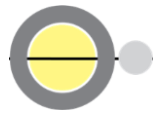
The TMP and urban development opportunities will:

- ① Create a **compact, well-connected** neighbourhood that prioritises **pedestrian movement and Non-Motorised Transport (NMT)**;
- ② Building connective and accessible **public spaces**;
- ③ Promoting **access and use of public transport, walking and cycling** that can enable land use development and investments;
- ④ Promote and enable **mixed land use activities**;
- ⑤ Limit on-street parking and more pro-active **management of parking**;
- ⑥ **Reducing dependency on private cars**; and
- ⑦ Identify possible interventions **to improve road safety**.

Concepts

Supporting Objectives

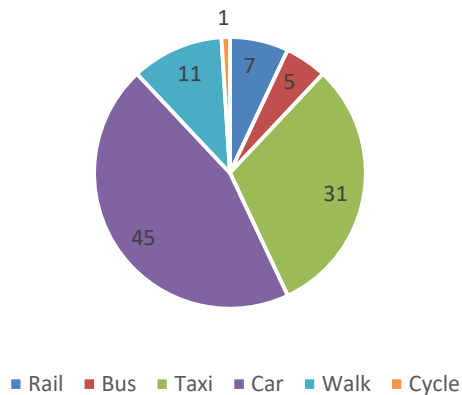




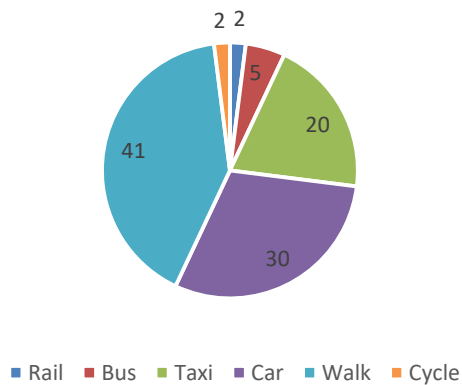
TMP Vision – Modal Split TOD



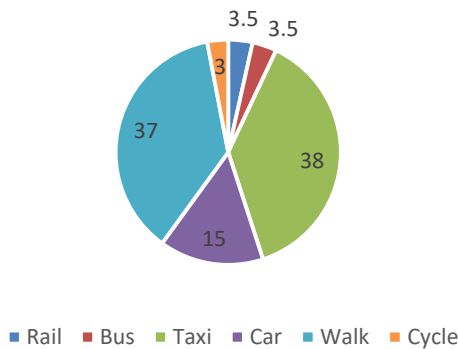
Work Trips CoJ HHTS 2011



Education Trips CoJ HHTS 2011



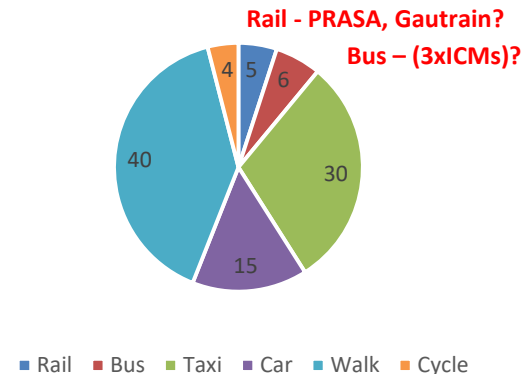
Roodepoort TOD Surveys 2018



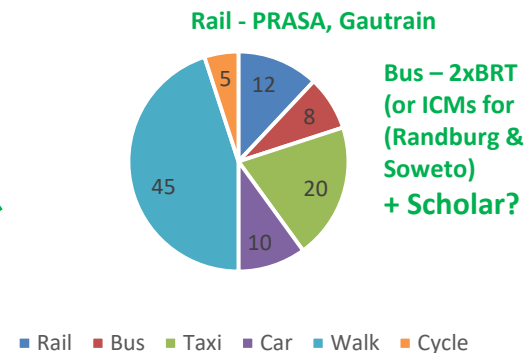
Existing Data

Average:
 Walk – 30%
 Cycle 2%
 Rail – 5%
 Bus – 3%
 Taxi – 30%
 Car – 30%

Realistic 2030



Sustainable 2030



Future 2030

NB. – To assist for modelling purposes



Roodepoort Station Precinct Re-imagined

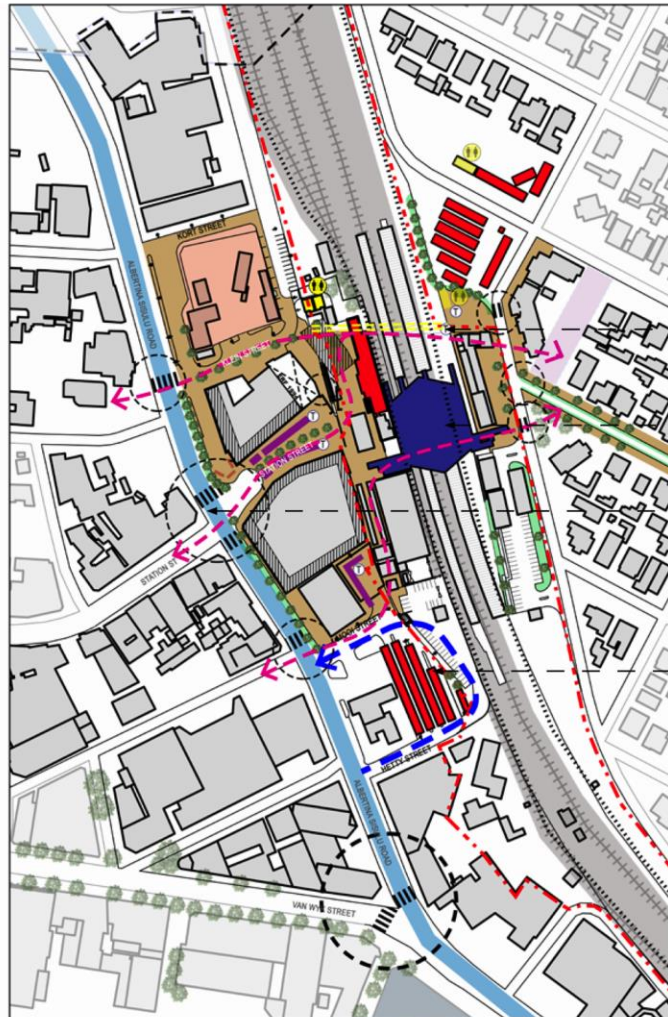


Figure 7.73 Proposed Train Station Implementation

- Tunnel upgrade
- Proposed new PRASA elevated train station
- Safer intersections - with car calming device
- Existing Taxi rank



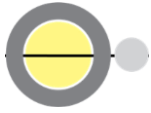
- Earmarked for future taxi/ public Transport Interchange (Erf 2115)
- Creating a public square - Erf 1894, Erf 1598, Erf 1875, Erf 1018, Erf 1601, Erf 3/1017, Erf 1961, Erf 1594, Erf 1600, Erf 1021, Erf 1042, Erf 1776, Erf 1044, Erf 1574, Erf 1044, Erf 1043, Erf 1573, Erf 12086

Key interventions for the short-term proposed would be :

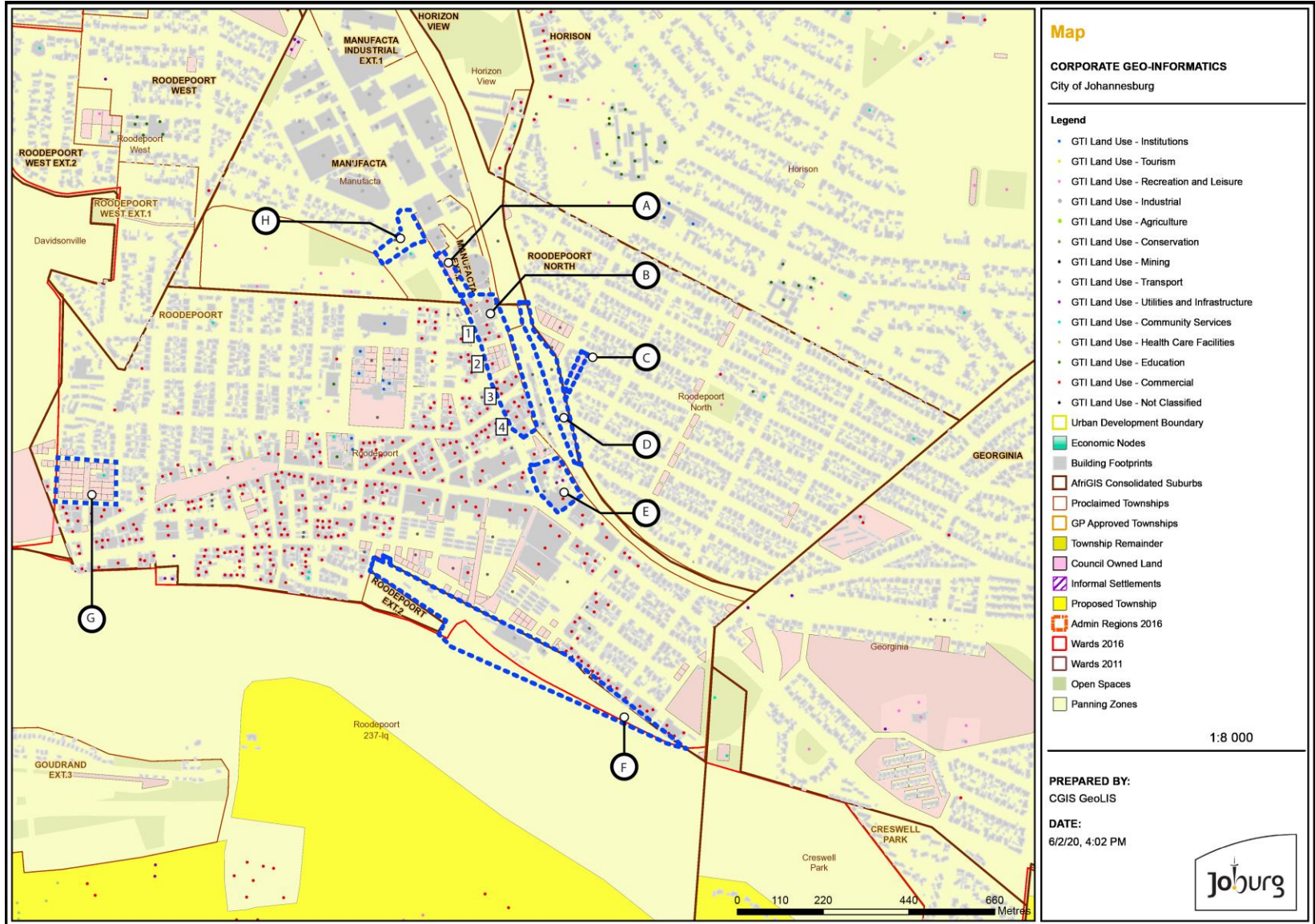
1. Restrict and contain the movement of the taxis by limiting taxi to the formal drop-off /pick up point by pedestrianising Station and Klein Street. This would allow the connection from north- south to occur safely.
2. Acquire property 1894, to demolish and alleviate the bottleneck occurring to the connection to the tunnel
3. Tunnel- to address the issues of safety, lighting and vendors in the tunnel
4. Toilets – to address the provision of accessible, safe ablutions for both male and female
5. Movement – provide safe crossing at the key intersections for safe access along busy intersections.
6. Formalising and making provision for informal traders.

Long term proposals:

7. The creation of an inter-modal transport precinct, including a public piazza, densification and taxi and bus ranks on either side of the piazza.



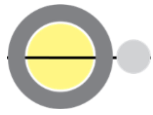
Possible Land for Relocation



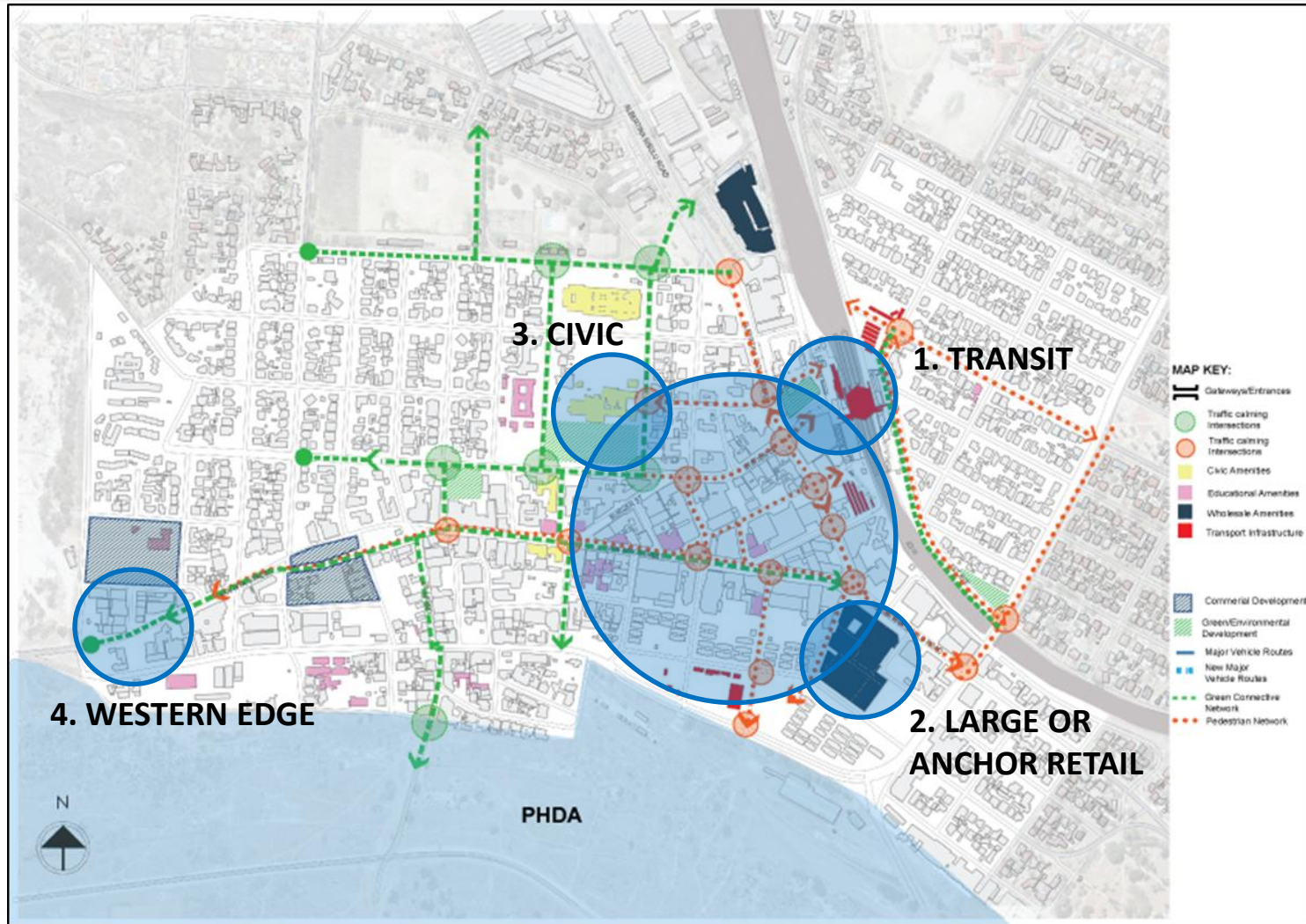


Potential Relocation (Site B-D)





Pedestrian Network Concepts



Potential Relocation Ranking for Ranks 2, 3, 4, 5 & 6 to Site B2

Rank 3 Mathole

Rank 2 Long Distance

Rank 4 KFC

Rank 6 Joburg

Rank 5 Leratong

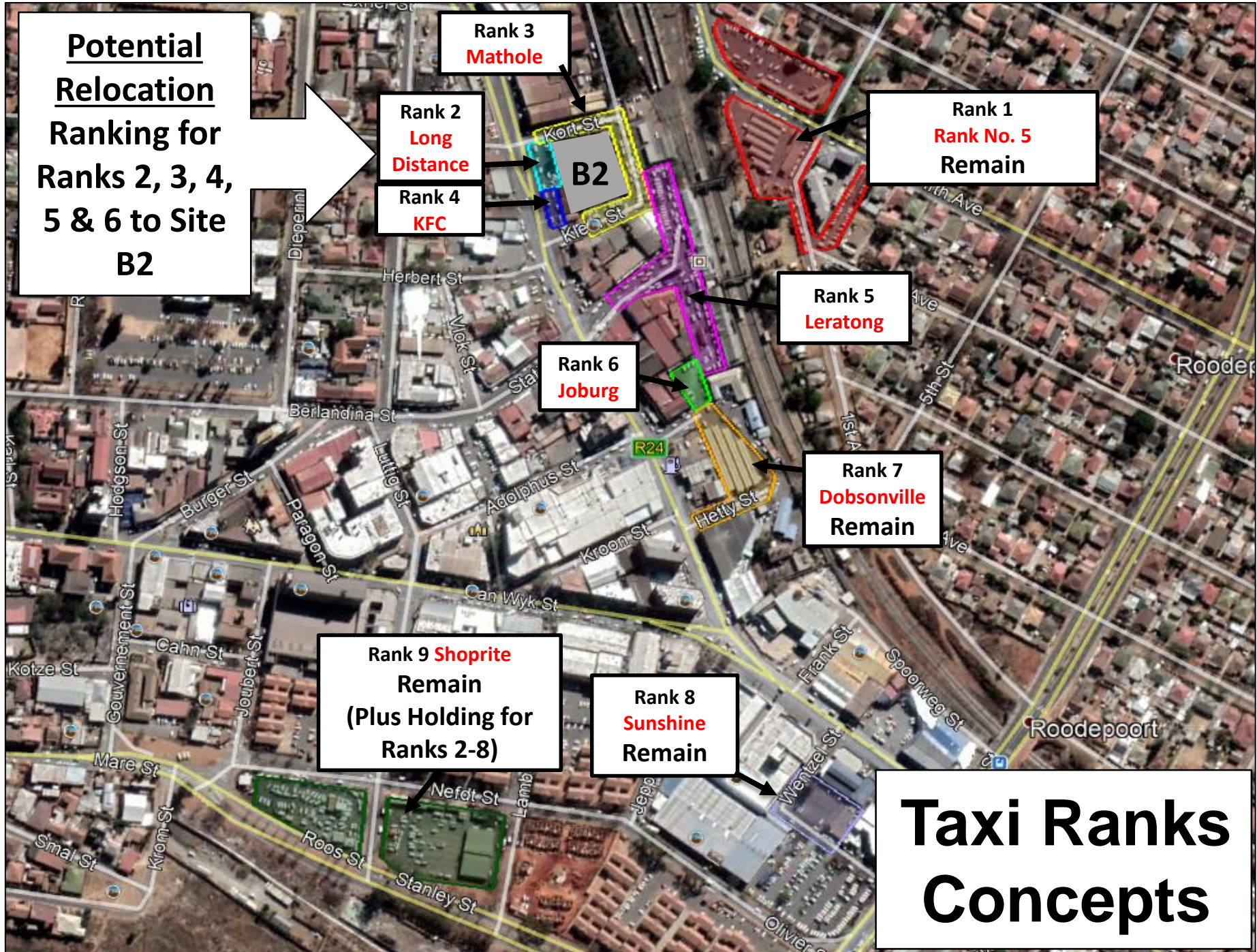
Rank 1 Rank No. 5 Remain

Rank 7 Dobsonville Remain

Rank 9 Shoprite Remain (Plus Holding for Ranks 2-8)

Rank 8 Sunshine Remain

Taxi Ranks Concepts

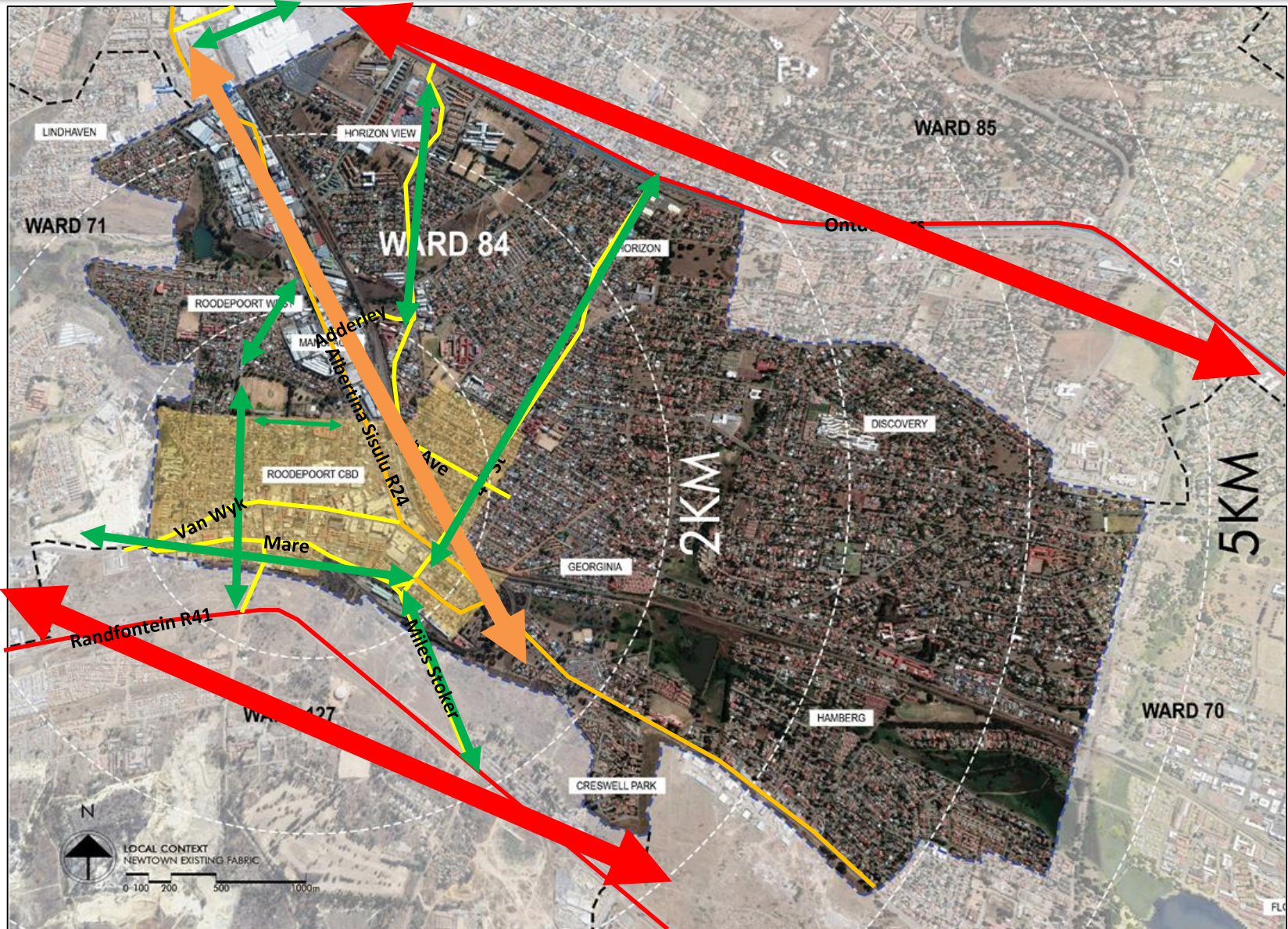


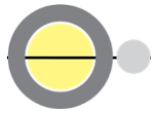
Taxi Ranks - Consolidation Concepts

- Rank 1: Current Taxi Operations remain as is - formalise holding areas, washing facilities, maintenance area, refurbishment of shelters, improve/open trader stalls, and general maintenance.
- Site B2 JMPD: Land for possible Redeveloped Taxi Rank and current JMPD activities to be relocated to other Council owned land.
- Rank 2, 3, 4, 5 and 6: To be consolidated into and located at Council owned land (Site B2 JMPD which can accommodate **280 taxis if one level formalised**).
- Site size: Sufficient to accommodate **80% of vehicles required to service the AM peak hour passenger demand** – Overflow vehicles to be accommodated at a holding facility.
Benefit: More convenient for taxis and passengers – own space and better facilities and organised operations, etc.
- Rank 7: Taxi operations to remain as is. Maintenance and refurbishment required.
- Rank 8: Limit Taxi operations to pick-up Sunshine shopping passengers. Provide dedicated area for this operation and formalise into agreement with Owners. Relocate taxis holding at Sunshine to Rank 9.
- Rank 9: Formalise into vehicle washing and maintenance Area with required facilities and infrastructure, and Refurbishment/Upgrade of holding area for Ranks 2 to 8 (Including taxis holding at Sunshine).

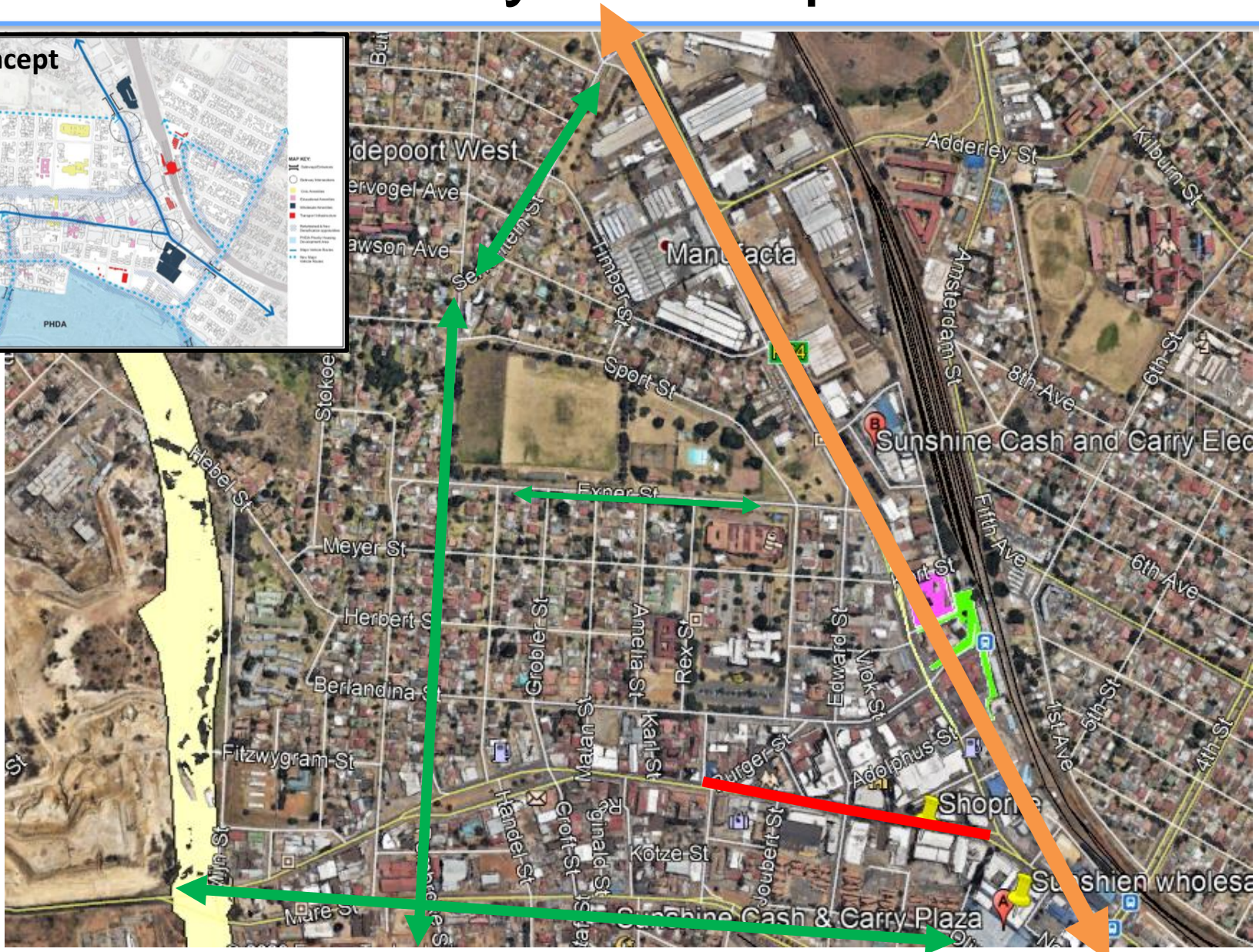
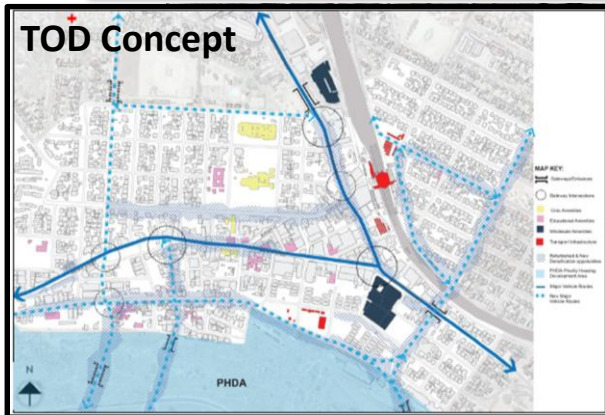


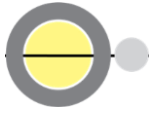
Mobility Concepts – Wider Network



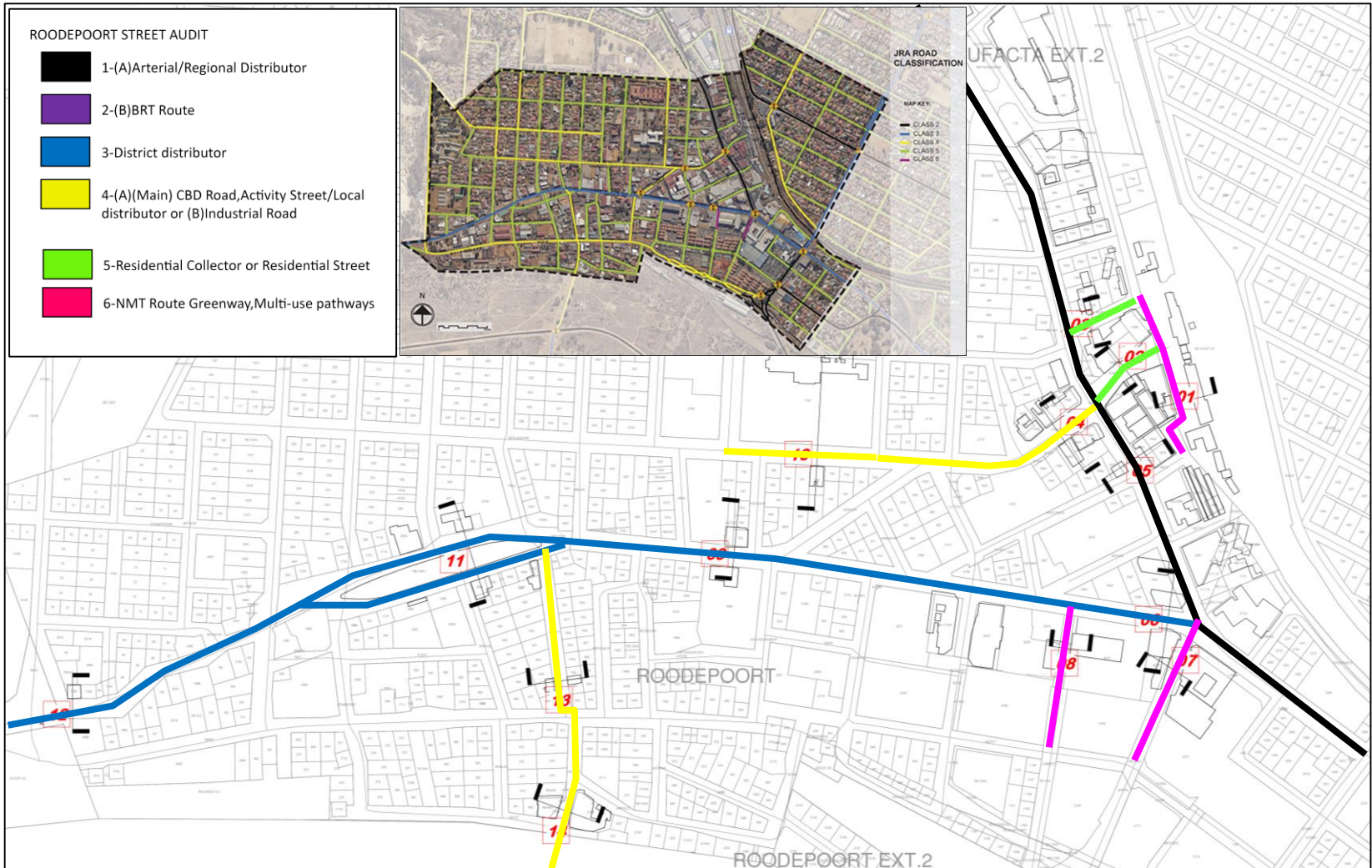


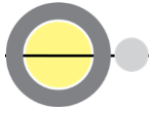
Main Mobility Concepts - CBD



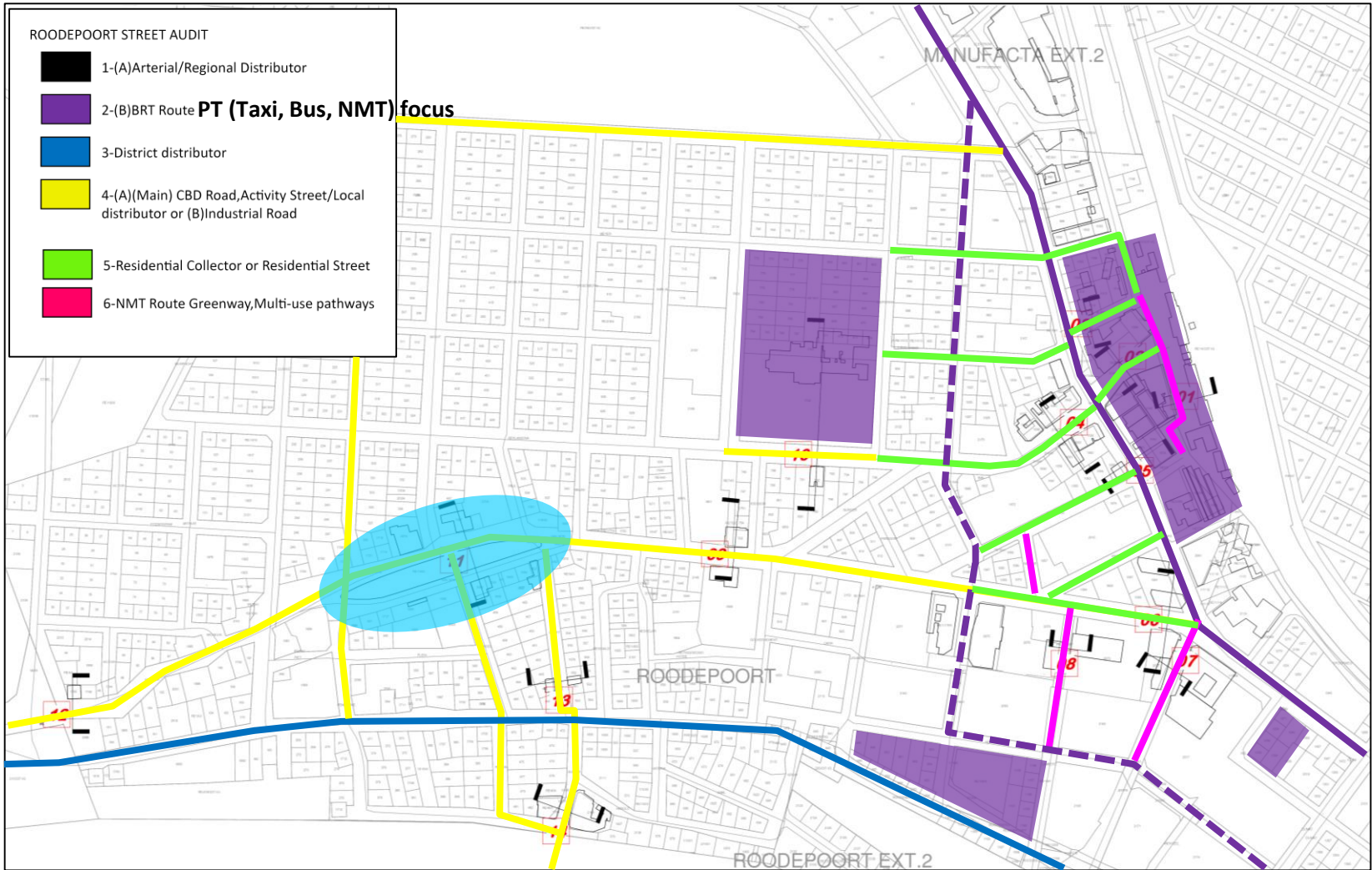


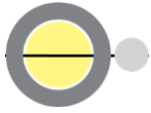
Complete Streets - Existing





Complete Streets - Vision





Mobility Network & Parking Concepts



- Concept 1

Maintain existing road and traffic flow configuration (Status Quo)

- Concept 2.1

Create Traffic box by converting Albertina Sisulu, Nefdt, Luttig and Edward into 1-way

- Concept 2.2

Create Traffic box by using Roodeberg and converting Albertina Sisulu, Luttig and Edward into 1-way

- Concept 3

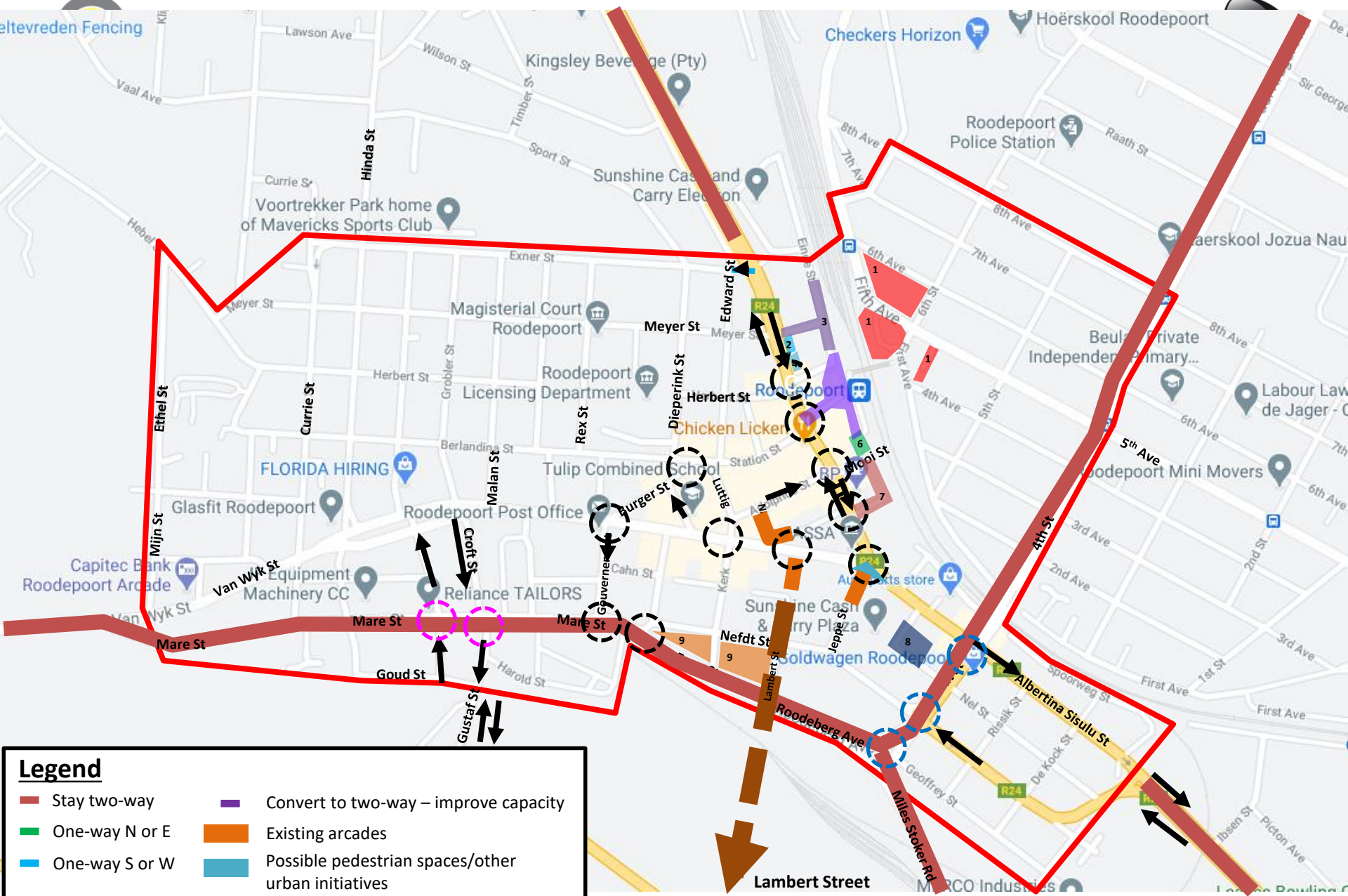
Convert Albertina Sisulu into 2-way (throughout)

- Parking Concept - TOD

- Remove Parking from Albertina Sisulu (PT stops & NMT prioritisation)
- Low usage on-street available bays (outside “purple box”)
- PAs 3 & 4 open bays (200 bays)?
- Off-street parking to be provided in new developments



Current Road Network Configuration: Concept 1: Status Quo (Maintain existing road and traffic flow configuration)

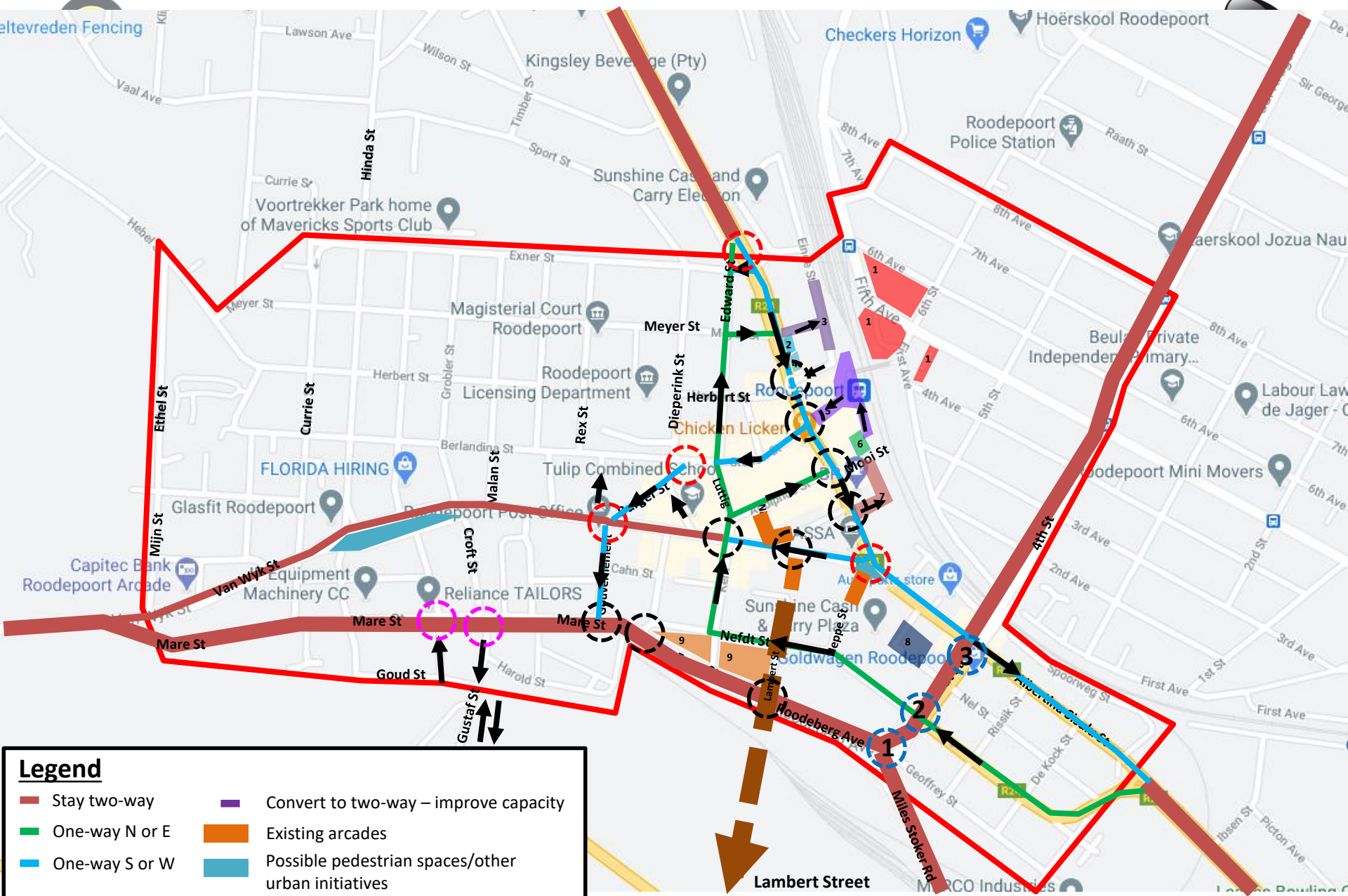


Legend

Stay two-way	Convert to two-way – improve capacity
One-way N or E	Existing arcades
One-way S or W	Possible pedestrian spaces/other urban initiatives

Parking and stop facilities with improved pedestrian width required along all one-ways + good intersection crossings

Possible road network changes: Concept 2.1 (convert Albertina Sisulu, Nefdt, Luttig and Edward into 1-way)



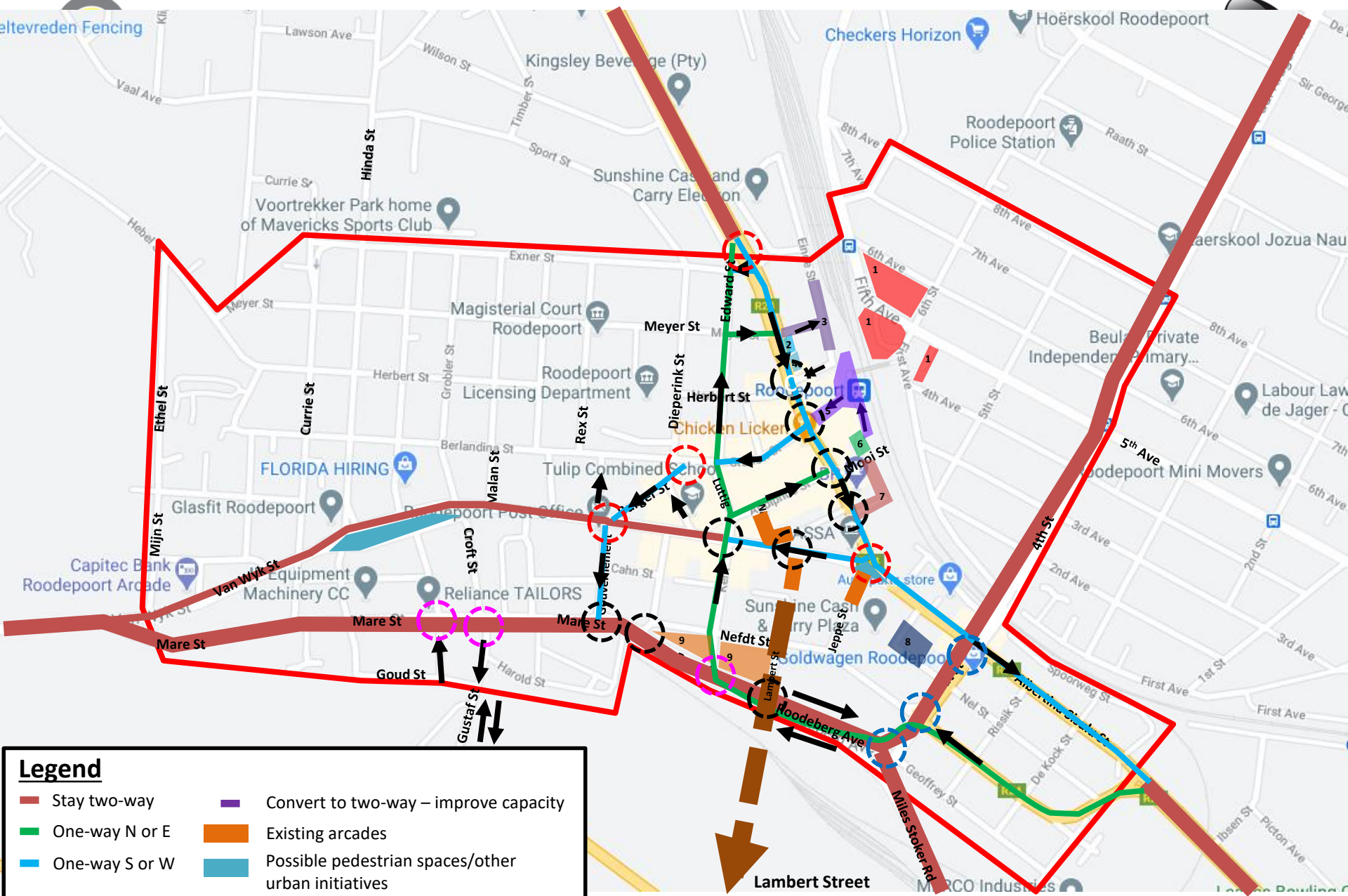
Legend

- Stay two-way
- One-way N or E
- One-way S or W
- Convert to two-way – improve capacity
- Existing arcades
- Possible pedestrian spaces/other urban initiatives

Parking and stop facilities with improved pedestrian width required along all one-ways + good intersection crossings

Lambert Street
possible good link
for NMT to the south
if developed south of rail

Possible road network changes: Concept 2.2 (use Roodeberg and convert Albertina Sisulu, Luttig and Edward into 1-way)



Legend

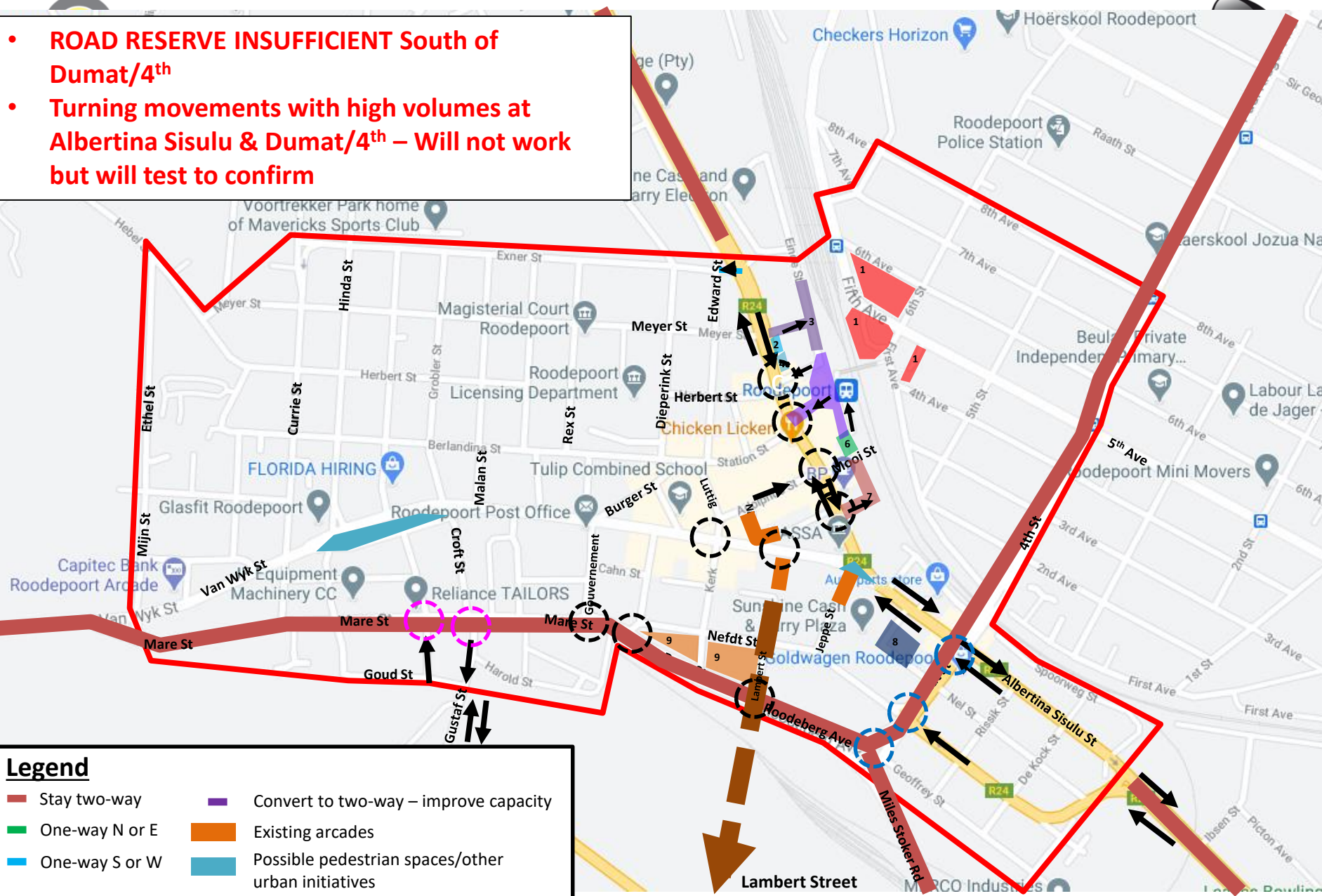
- Stay two-way
- One-way N or E
- One-way S or W
- Convert to two-way – improve capacity
- Existing arcades
- Possible pedestrian spaces/other urban initiatives

Parking and stop facilities with improved pedestrian width required along all one-ways + good intersection crossings

Lambert Street
possible good link for NMT to the south if developed south of rail

Possible road network changes: Concept 3 (convert Albertina Sisulu into 2-way - throughout)

- ROAD RESERVE INSUFFICIENT South of Dumat/4th
- Turning movements with high volumes at Albertina Sisulu & Dumat/4th – Will not work but will test to confirm



Legend

— Stay two-way	— Convert to two-way – improve capacity
— One-way N or E	— Existing arcades
— One-way S or W	— Possible pedestrian spaces/other urban initiatives

Parking and stop facilities with improved pedestrian width required along all one-ways + good intersection crossings

Lambert Street
possible good link for NMT to the south if developed south of rail

Comments/Questions/Suggestions

A. Urban Aspects & Issues to highlight

1. Safety – Crime, vehicle and pedestrian accidents
2. Pedestrian – Movement, environment and amenities
3. Informal Trading – Space, environment and infrastructure

B. Transport Aspects & Issues to highlight

1. Taxi – Services, ranking and holding environments, passenger waiting areas
2. Rail Station environment
3. Road Network – Mobility, congestion, freight
4. Parking – On-street and off-street

C. Specific Questions

1. Highlight unsafe crossings, problematic intersections or congested areas (pedestrian/vehicle/informal traders)
2. Western edge – Why not well used? What is missing in that area?
3. What is your vision for the Roodepoort CBD in relation to Transport operations and infrastructure?



Way Forward

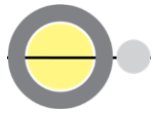


Comments/Questions/Suggestions can be submitted by Friday 14 May 2021 to:

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Remaining Project Milestones:

- Draft Transport Master Plan – end May 2021
- Stakeholder Consultation – during June 2021
- Final Transport Master Plan – end June 2021



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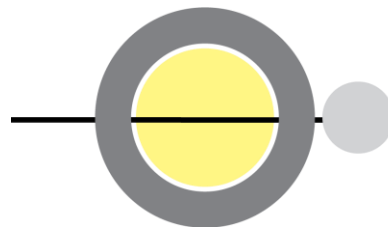


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LEMONpebble

architects + urban designers

