



## Background

The City of Kigali implemented a bold bus network system in 2013 in a set of first-generation contracts as part of the Kigali Urban Master Plan. 55 Bus routes were contracted under 4 allotments with 3 operators utilizing 450 busses at 6 depots. These contracts and bus operations have changed the way the City moves, and after 5 years of successful operations, the Government of Rwanda through a joint committee of RURA, RTDA, MININFRA and CoK determined that a network redesign and second generation contract was necessary.

GoMetro, as part of an international consortium was responsible for onboard data collection. Passenger volumes that were measured were converted into 15 minute interval graphs. The routes, which were mapped, were then modelled geo-spatially to produce a map book of existing public transportation. The geo - spatial maps were then used to rationalise the operations of the transport network to provide recommendations for optimisation.

## Objectives

GoMetro was involved in Bus Network Restructuring Consultancy Services for the development of a business model for Public Transport Services in the City of Kigali. Phase 1 was data collection and detailed diagnoses. Phase 2 was the proposition of bus network restructuring and traffic management measures. The overarching objectives of the public transport improvement process were:



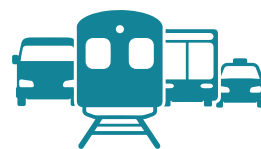
Public transport contract revision.



Fare system improvement.



Bus network development and restructuring.



Public transport Services improvement.



Governing framework improvement.



### Measure

your existing operations and find efficiencies.

### Model

demand and supply with the most efficient routing.

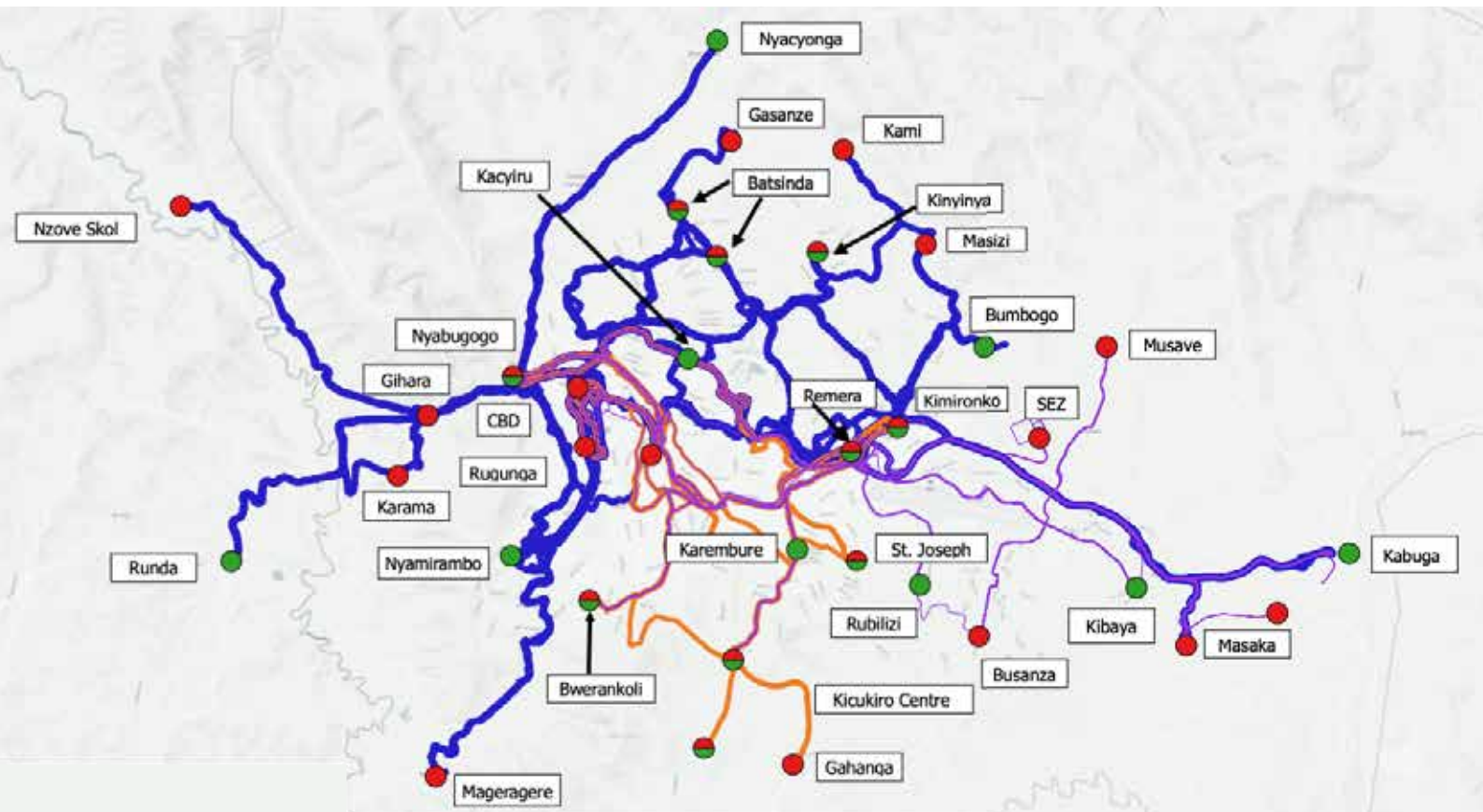
### Manage

all aspects of the operations - Vehicles, Drivers and Routes.

### Move

your Riders and Customers with a real - time mobile app.

## Kigali Bus System Network Map



**350 000**  
Passenger Trips

**3**  
Bus Companies

**400**  
Vehicles

**6**  
Depots

**10 000**  
Vehicle Trips

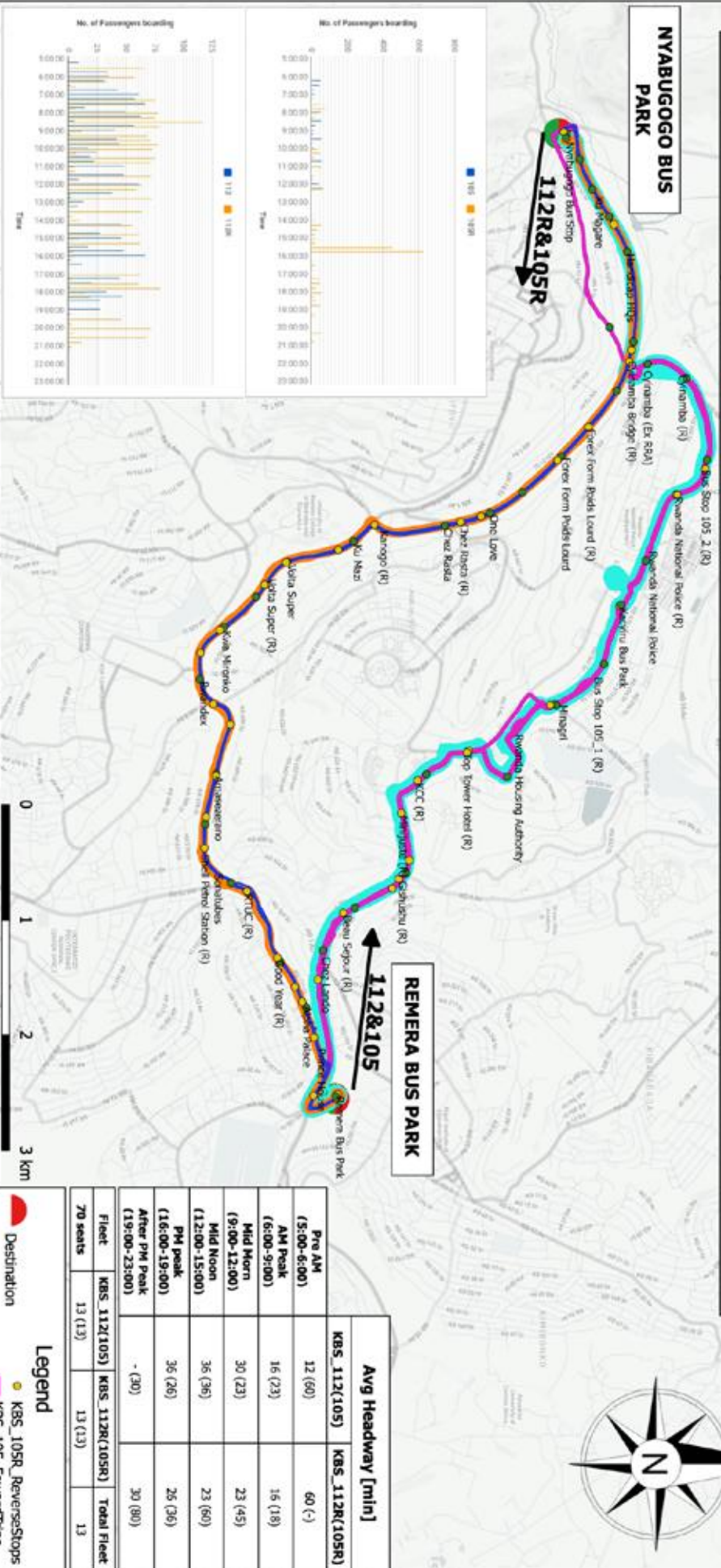
**23**  
Mapping Day

**55**  
Operating Routes

**110**  
Enumerators

### KBS\_112 & KBS 105

### ON-BOARD BUS SURVEY: ROUTE FROM REMERA BUS PARK TO NYABUGOGO BUS PARK



Route Id	Services /day	% Service /day	Stops/Km	Trip Distance	Average price boardings /km	Daily Distance Operated	Total Riders/day	Ridership [Pax/trip]						Trip Travel Time: Avg (Max)[min]					
								Am Peak (6:00-9:00)	Pm Peak (16:00-19:00)	Pre Am (5:00-6:00)	Am Peak (6:00-9:00)	Mid Morn (9:00-12:00)	Mid Noon (12:00-15:00)	Pm Peak (16:00-19:00)	After Pm (19:00-23:00)	Am Peak (6:00-9:00)	Mid Morn (9:00-12:00)	Mid Noon (12:00-15:00)	Pm Peak (16:00-19:00)
KBS_112	34	23.1	0.9	11.6	4.2	393.3	1651	48	69	25 (48)	42 (69)	53 (59)	46 (63)	46 (57)	-				
KBS_105	40	27.2	0.9	12.2	5.9	489.8	2927	69	84	41 (41)	48 (63)	55 (73)	56 (62)	60 (68)	57 (76)				
KBS_112R	44	31.3	0.9	11.9	5.9	522.3	3062	76	76	52 (52)	30 (51)	50 (61)	53 (68)	55 (63)	48 (62)				
KBS_105R	27	18.4	1.0	12.5	5.8	338.1	1972	75	74	-	45 (55)	66 (75)	76 (79)	72 (93)	62 (66)				

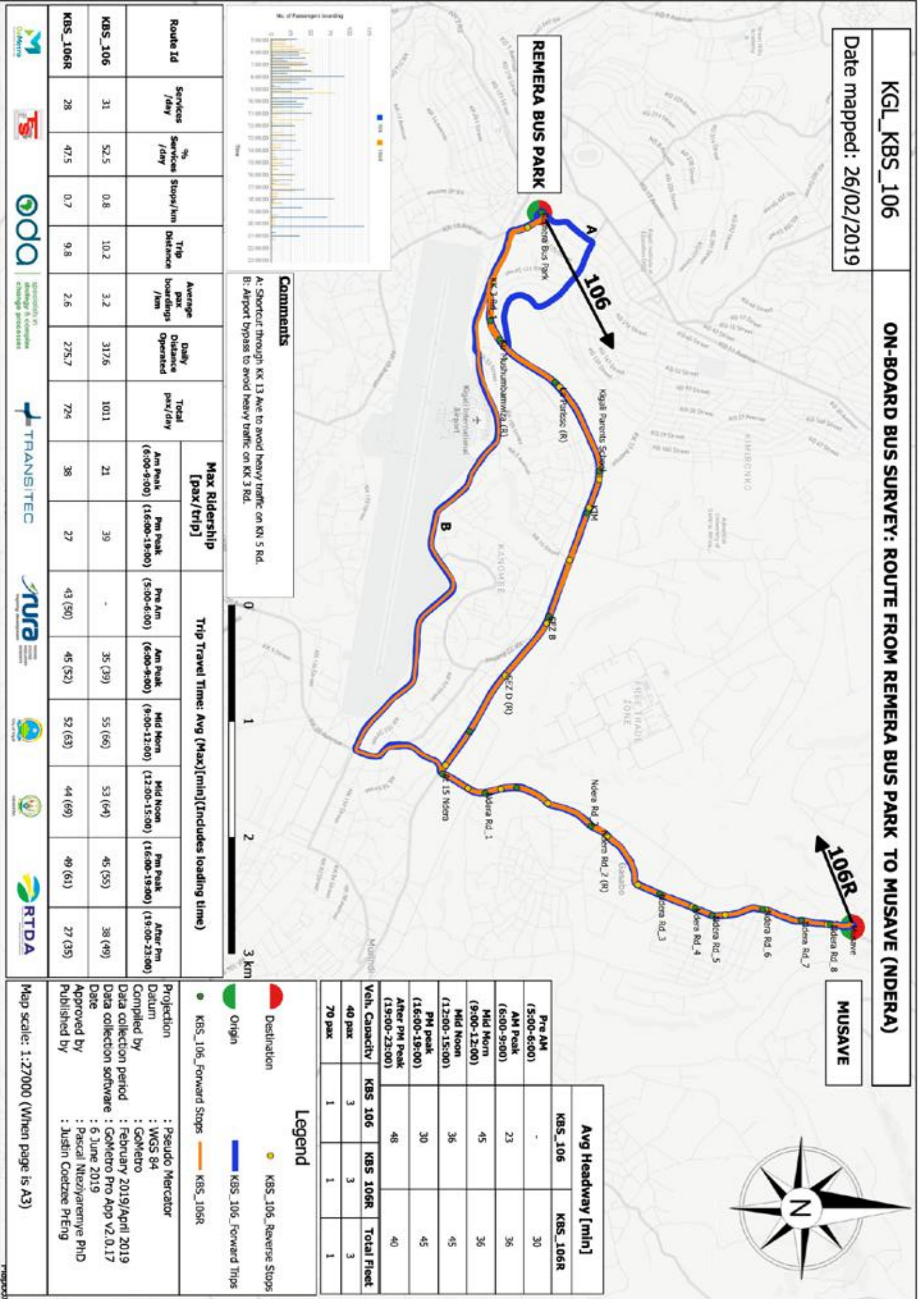
Avg Headway [min]		Fleet	70 seats	Total Fleet
Pre AM (5:00-6:00)	12 (60)	KBS_112(105)	13 (13)	13
AM Peak (6:00-9:00)	16 (73)	KBS_112R(105R)	13 (13)	13
Mid Morn (9:00-12:00)	30 (73)			
Mid Noon (12:00-15:00)	36 (36)			
PM peak (16:00-19:00)	36 (26)			
After PM Peak (19:00-23:00)	- (30)			

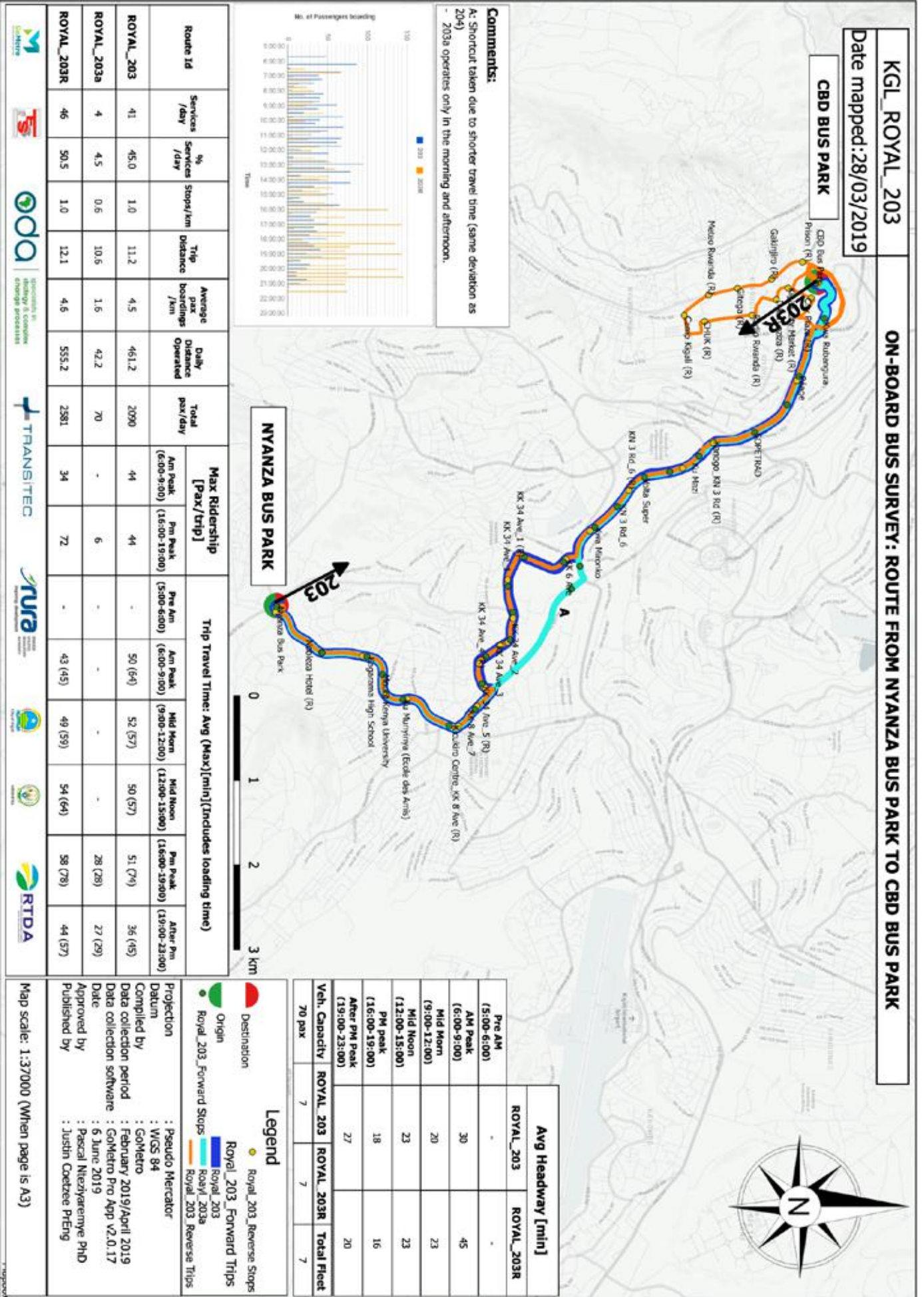
**Legend**

- Red circle: KBS\_105R, ReverseStops
- Green circle: KBS\_105, ForwardTrips
- Blue circle: KBS\_105R, ReverseTrips
- Orange circle: KBS\_112, ForwardTrips
- Yellow circle: KBS\_112R, ReverseTrips

Projection : Pseudo Mercator  
 Datum : WGS 84  
 Compiled by : GoMetro  
 Data collection period : February 2019/April 2019  
 Data collection software : GoMetro Pro App v2.0.17  
 Date : 6 May 2019  
 Approved by : Pascal Nteziyimana Ph.D  
 Published by : Justin Coetzee Pr-Eng

Map scale: 1:33000 (When page is A3)







The technology behind the mapping project, GoMetro Pro, is a mobile transit app designed to map public transport routes, stops and other public transport related information. The app is designed to function with or without internet connectivity.

The captured route can be reviewed on the GoMetro Pro app before uploading to the database. Our technology then collects, collates and displays the geospatial transport data on a map using an automated data validation processes.



Do you want to improve  
the way you move?

Get in touch with us for more information.



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