



Parking Management Policy and Strategy for the Paramaribo Inner City



Final report: Parking policy for
Paramaribo inner center

July 2022



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1 Introduction

1.1 Objectives of the assignment

As part of the goal to improve the urban mobility of Paramaribo’s city center, the Government of Suriname is promoting different studies such as the Public Transport Improvement Plan and the present Parking Strategy Plan.

The purpose of this plan is to develop a **policy for parking management for the Paramaribo Inner City**; this strategy would seek to ensure the availability of parking places, which will encourage the citizens to drive to the city center to perform activities.

According to *IDB, 2021* the possible set of instruments and public policies to improve mobility in the cities are:

- ❖ Traffic management instruments such as traffic calming, infrastructure supply and road access control, seek to improve the mobility and reduce traffic congestion through infrastructure and control measures.
- ❖ Policies that restrict the use of private vehicles such as on-street parking limitations, road pricing, etc. Their purpose is to discourage the private vehicle use; these measures are intended to “push” users towards more sustainable modes of transport.
- ❖ Policies that promote the use of public and active transportation and ridesharing such as park and ride facilities, bicycle and pedestrian infrastructure, etc. These measures aim to improve the infrastructure available for more environmentally friendly modes of transportation and to “attract” users towards a more sustainable mobility.
- ❖ Integrated mobility and land use planning such as Transit-Oriented Development.
- ❖ Urban logistics management as off-peak delivery of goods. They are policies for the management of goods distribution and the circulation of delivery vehicles in city centers.

The Parking Management Policy and Strategy for the Paramaribo Inner City seeks to improve circulation in the city center via the application of parking regulations, traffic management solutions and the implementation of pedestrian areas. The purpose of the different measures is:

- ❖ Decrease the use of private vehicles
- ❖ Reduce illegal parking
- ❖ Reduce circulation in search of a parking spot
- ❖ Recalibrate land allocation among users of all transportation modes
- ❖ Generate social and economic benefits

Moreover, the financial benefits from the regulated parking service can be converted into improvements in public transport and/or the urban space (pedestrian streets and improvements of the pedestrian sidewalks) in the city center of Paramaribo.

1.2 Aim of the report

This document is part of the project: *Parking Management Policy and Strategy for the Paramaribo Inner City*; the aim is to define the main guidelines for Paramaribo Inner city parking policy and define the implementation plan.

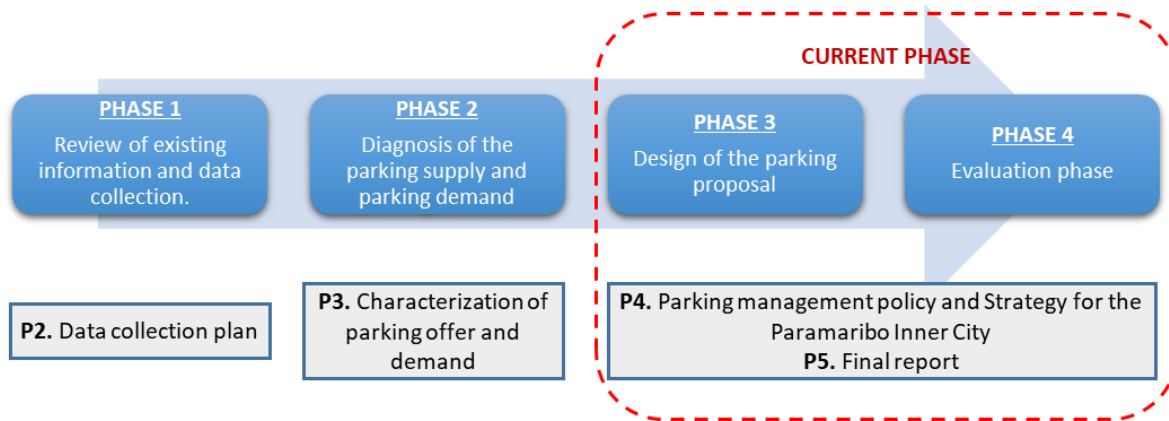


Figure 1. Milestones of the project. Source: own elaboration

Phase 1. Review of existing information and data collection:

Different field studies were carried out to characterize the current state of parking supply and demand, as well as parking demand behaviour, since this information was not available.

Moreover, a review of relevant studies has been carried out to characterize the study area and identify those aspects that influence parking supply and demand as urban configuration, public transport supply, etc.

Phase 2. Diagnosis of the parking supply and the parking demand:

Analysis of the field studies data to understand and characterize the current situation of parking in Paramaribo inner city, and to quantify the supply in order to identify the main problems and develop the parking policy.

All information was included in a GIS, which allows the development of geographic representations (mapping).

Phase 3. Design of the parking proposal:

Design of a preferred proposal for parking management and a consistent implementation plan. The parking proposal will include, among others:

- ❖ Calculation of the optimal pricing setting
- ❖ Price structure proposal
- ❖ Implementation proposal
- ❖ Location of parking places
- ❖ Proposal for parking places reserved for loading and unloading operations, and persons with reduced mobility among others.

Phase 4. Evaluation phase:

An analysis of the financial viability of the plan is carried out. For this purpose, the costs of implementation and income revenue have been estimated.

1.3 Study area

The following image shows the study area for the Parking Management Policy and Strategy for the Paramaribo Inner City project:

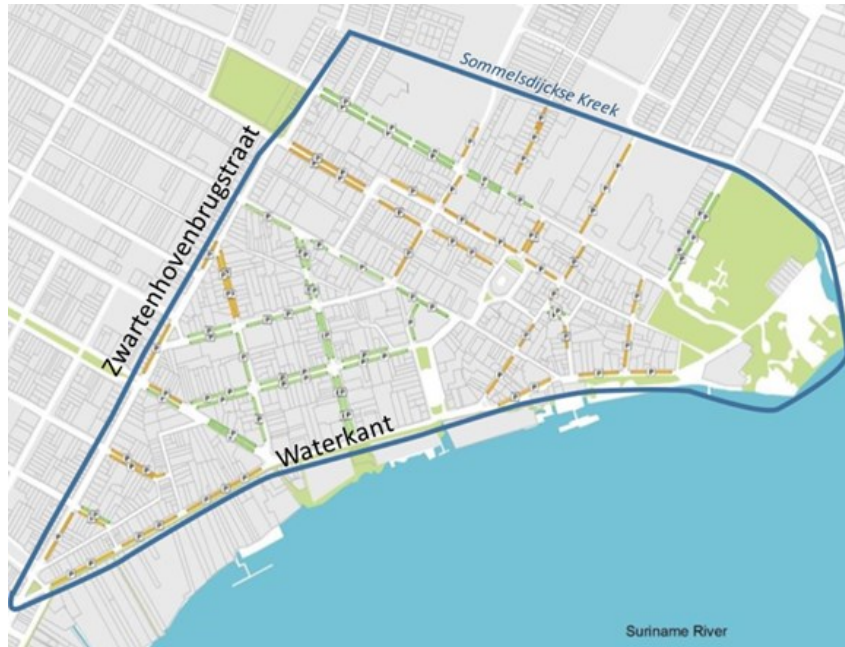


Figure 2. Intervention area for a parking management policy. Source: PURP

It is recalled the division of the study area in the previous reports, according to land uses and points of interest. Block 1 can be characterized as Residential & Shopping block. Blocks 2 & 3 are Shopping blocks, where most of the shops are settled. Blocks 4, 5 & 6 are the Office blocks, where most (government-) offices are. Block 4 is where most recreational activities happen after office hours and is the oldest part of the city as well.

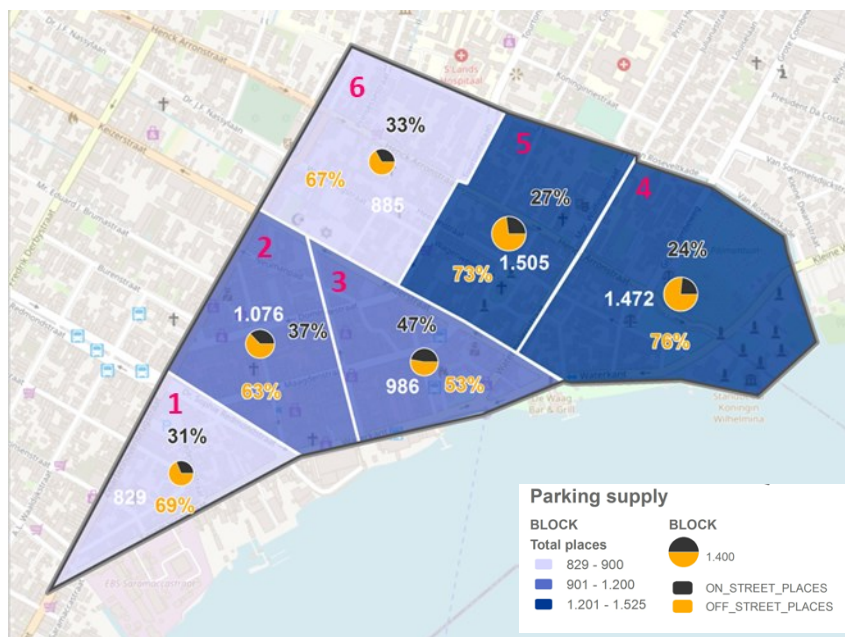


Figure 3. Overview of blocks with indication of total number of parking places (white) and distribution of off-street (yellow) and on-street parking places (black). Source: Own elaboration

2 Validation of the diagnosis

2.1 Main ideas from the diagnosis report

Parking supply:

There are a **total of 6,800 parking places** in the study area (4,600 off-street, 1,700 official on-street and 500 informal on-street). **Informal on-street parking** (sidewalk) represents **23% of all on-street parking** and occurs mostly in blocks 4 and 1 (see Figure 3). Nowadays there is parking spots on all the streets of the city center (since there is streets where informal on-street parking is allowed), so it is not possible to increase the number of on-street parking places; regarding the off-street parking, all the possible areas in the inner center are already being used for parking too. At the proposal phase it will be analyzed if it is possible to increase the off-street offer outside the inner city center.

Regarding the condition, 24% of the on-street parking (official + informal) is in poor condition and needs maintenance. 30% of on-street places do not have any indication of parking place.

In the case of the off-street parking lots, 29% present poor conditions. It is noteworthy that 32% of the expensive paid parking lots are unpaved and in poor condition.

All on-street parking lots are publicly owned and free of charge to the public. However, 200 parking places are formally reserved or blocked for private use (12% of all formal on-street parking places); some of these private places are not officially assigned for private use and are usually used by business owners and employees to park in front of their building who block the places with objects.

There is a large concentration of off-street parking lots in the north-eastern part of the city center, where there is limited on-street parking and a high concentration of offices. **73% of the off-street parking places are privately owned** and **60% of all the places are reserved for certain users**, almost all of which are owned by companies that provide free parking facilities to their employees and/or customers. The other 40% is open to the public for a fee or free of charge depending on whether the property is privately or publicly owned.

Parking demand - working days:

On-street parking

The **overall daily occupation of the study area is 74%**. During peak hours (from 7:45 to 15:15), this value increases to 90%. After 15:00, once the working period for many employees ends, the demand for parking is significantly reduced (42% of occupation).

A strategic decision to be made is whether the informal parking will be regulated or eliminated. The overall occupancy would increase by up to 90% if the informal parking (sidewalks) was eliminated.

The rotation rate is approximately 2 vehicles/place in all the blocks, which means that vehicles have static behaviour. In general, the average parking time is 3.5–4 hours. The parking policy can help to increase the rotation rate and make the inner city more attractive for different economic activities.

23% of the parking users stay more than 6 hours and represent 50% of the total parking hours, which means that almost half of the parking places are occupied during all peak hours; people interested in shopping or leisure (short-period activities) will have difficulties finding a spot.

Off-street parking

Most of the available off-street places are **privately owned for private use (employees or costumers)**, they **present a medium occupancy throughout the day, between 35-65%**. Public-owned and public-used off-street parking lots, most of them free, present a higher occupation, between 65-85%.

Parking demand – weekends and residential demand:

The results demonstrate that the **parking supply on Saturday morning is enough to meet the demand**; the overall occupancy of blocks 2&3 (see Figure 3) is around 60-70%.

The **study area does not present problems for residential demand** (30% of occupancy), most of the trip purposes are mainly work and shopping. Residential land use in the area is low.

Block 1 (Residential use) **and Block 4** (Recreation block, monuments and garden) present the **higher occupational rates** (50-60%) on weekends and nights, but still have sufficient capacity.

Illegalities - Freight:

Nowadays, there are over 500 non-regulated places in sidewalks (informal) where is "allowed" to park, with an average occupancy of 66%. Moreover, people park in non-allowed sidewalk places (illegal).

In addition to on-sidewalk parking, other types of illegalities have been identified (double parking, parking on bus stops, driveways, and roadways). During working days, it has been detected 300 **illegally parked cars** that represent **20% of the regulated on-street supply**.

There are currently no reserved places for trucks to load and unload goods, so they often stop anywhere on the street for this purpose. It is necessary to reserve certain places for these activities.

User characterization

80% of the visitors access the study area regularly by car. Work users represent 56% of the respondents, and 64% visit the city center on a regular basis.

One third of journeys originate in areas close to the study area (Centrum, Munder, Rainville and Blauwgrond). Respondents with more purchasing power are more likely to drive than use alternative modes of transportation.

46% of car users have paid to an illegal parking attendant for an on-street place.

The majority of the visitors to the inner center spend more than four hours (45% of car users).

Willingness to pay

People who come more frequently to the inner city are more reluctant to pay. In the case of having to pay, users **prefer to stay in guarded parking**, even if it is more expensive.

Although on-street parking in the city center is currently free, giving some money to the illegal parking attendants is a common practice. This means that most of the surveyed parking users already pay for parking, which can be one of the reasons why about **70% of the respondents chose to pay for the guarded parking in the WTP question**.

There are a **total of 6,800 parking places** in the study area (4,600 off-street, 1,700 official on-street and 500 informal on-street). It is not possible to increase the number of parking places in Paramaribo inner city center.

The study of the parking demand highlights that the existing capacity is adequate to face the daily demand, the **overall occupation is 74%**; but **in peak hours, the occupation arrives at 90%**. Considering that part of the parking is informal, parking demand at peak hours is too high for the available parking offer. The introduction of a parking control and pricing policy will help to solve this problem.

The lack of an effective and applied parking regulation policy and organization prevent the use of the full potential of the available capacity and increase the number of illegalities.

2.2 Stakeholders activities – validation of the diagnosis

Two stakeholder workshops were held to inform stakeholders of the project activities, to validate collected data, and to solicit input for project interventions. Table 1 provides an overview of the involved stakeholders including government-, enforcement-, private-, public- and research/ consultant sectors. The first workshop was held on the 6th of May 2022 and was aimed at gathering input from the private sector. The input from the first workshop was used to inform the government sector in the second workshop, which was held on the 31st of May 2022.

Table 1. Overview of stakeholders involved in the stakeholders workshops. Source: own elaboration

STAKEHOLDER	DESIRED CHANGE
GOVERNMENT SECTOR	
Ministry of Public Works- Under directorate Traffic (Min PW)	Improved parking infrastructure, -regulatory systems and -policies.
District Commissioner Paramaribo North-East (DC Par'bo NO)	
Road Authority (WA)	
Road Safety Institute (VVI)	
Ministry of Transport, Communication and Tourism – Directorate Transport (Min TCT)	
Ministry of Spatial Planning and Environment (Min ROM)	
Paramaribo Urban Rehabilitation Program (PURP)	Restoration and rehabilitation Paramaribo inner city.
National Institute for Environment and Development Suriname (NIMOS)	Ensure that all proposed activities comply with environmental standards; Use project to address environmental concerns e.g. reduced emissions.
Members of parliament - DNA (commissions TCT, PW, ROM)	
ENFORCEMENT SECTOR	
Police (Korps Politie Suriname) – Traffic Department (KPS)	Improved parking infrastructure, -regulatory systems and -policies. Fewer parking violations.
Buurtmanager binnenstad	
PRIVATE SECTOR	
Shop owners (VSB & Winkeliers en Ondernemers Vereniging Suriname)	Increased number of visitors due to increased attractiveness of the inner city.
Parking lot operators	Increased revenue due to paid parking.
Freight Distributors	Improved loading/unloading facilities and accessibility of shops.
Private Taxi and Public Transport Operators (PLO, NVB, OBS, VOVOV)	Increased revenue due to increased number of users.
Suriname Hotel and Tourism Association (SHATA)	Increased number of visitors due to increased attractiveness of the inner city.
CIVIL SOCIETY	
Residents of the inner city (Ressort Raad Centrum)	
Visitors inner city (Consumentenkring)	Improved accessibility of the inner city.
Disability community	Improved accessibility of the inner city for disabled people.
Traffic Volunteers (Korps Verkeersvrijwilligers Suriname)	Improved parking infrastructure, -regulatory systems and -policies. Improved accessibility of the inner city.
Vereniging Vrienden van Stadsherstel Suriname	Restoration of Paramaribo inner city

STAKEHOLDER	DESIRED CHANGE
Stichting Gebouwd Erfgoed Suriname (SGES)	Restoration of Paramaribo inner city
RESEARCH AND CONSULTANTS	
AdeK University – Infrastructure department (AdeKUS-IS)	Improved parking infrastructure, -regulatory systems and -policies. Improved data collection.
Consultants having completed traffic and urban planning related studies (Y. Blufpand, S. Ferrier, R. van Dijk, R., R. Tjin Wong Joe, C. Burgos)	Improved parking infrastructure, -regulatory systems and -policies. Improved data collection.
Union of Architects (UvA)	Improved parking infrastructure, -regulatory systems and -policies. Improved data collection.

A short summary of the input gathered during the workshops is given in this section. Detailed reports of the workshops with attendance are available in Annex 1. Stakeholder’s activities minutes. The key inputs of the stakeholders are listed below:

- ❖ Supply and Demand data comments:
 - Similar findings are found compared to studies from 10-20 years ago from Prosur and Wegenautoriteit.
 - Even though theoretically there is enough parking supply to meet the demand over the entire study area, there are some blocks where the demand exceeds the supply, e.g., commercial blocks. In these blocks many illegalities occur. Shop owners are in favor of short stay parking regulation to improve this excessive parking demand issue.
 - There are concerns about the representative parking demand not being capture due to COVID impact and surveys not conducted during end-of-the-month period.
- ❖ There is a big concern that the inner-city is ‘dying’ by becoming less attractive over the years. People do not go there anymore for various reasons, including poor maintenance, flooding, and lack of parking, safety, and tramps. The stakeholders were convinced that parking regulation will help to boost the attractiveness of the city, however parking regulation alone is not enough. An integral approach of urban planning is required to make the city attractive again.
- ❖ Private investors are hesitant to invest in a parking garage which is open for public and paid, as it is not feasible if there is no enforcement. People rather park illegally rather than pay.
- ❖ Police follow the directions from the central government to enforce illegal parking.
- ❖ If parking is becoming paid, the parking facilities should be in good condition e.g., good drainage, good pavement, proper marking, etc. If facilities are not in good condition, people will be more reluctant to pay for parking.
- ❖ Consider the aftereffects of parking policies as well, especially in the border areas where parking on-street will still be free of charge, e.g., Eddy Brumastraat. Consider Park and Ride (P+R) facilities where visitors can park outside of the center for long stay, cheap and safely and take the bus to go into the center.
- ❖ 60% of parking off-street is restricted for private users. Shops and businesses can collaborate to share each parkings for employees, such that some parkings are open for the customers.
- ❖ Consider the amount of parking spaces the bus public transport system requires. These spaces are not used efficiently during the day. Consider taxi parking demand as well.

- ❖ The question of “What do we want from the city? Do we want more cars and arrange for more parking spaces, or do we want less cars and make the city more touristic?” was asked several times, but no clear answer was given. This discussion should be addressed in a following stakeholder’s workshop.
- ❖ Some areas within the historical city should be made into car-free/ pedestrian and cycling areas, where streets should be transformed into pedestrian areas instead of being used to drive or park cars. This will stimulate tourism and put emphasis on the cultural heritage that the city has to offer. The air quality would be improved as well.
- ❖ There were no objections made against paid on-street parking by the stakeholders. In fact, some of them clearly expressed that they were in favor of paid on-street parking. Consider a paid subscription for paid parking as well.
- ❖ In case of paid on-street parking, the funds should not be received by the government but by the private sector (PPP model). The private contractor will collect the funds and take care of maintenance of the parking payment facilities, while the government should only be monitoring.
- ❖ There are many scattered actors involved in making traffic policy (Ministry Public Works, Police, Ministry of TCT, Road Authority, etc.) and thus there is no integrated policy. The will of the government is not clear. There must be a central institute that regulates everything to make and implement traffic policy.
- ❖ Illegal parking attendants are a big nuisance in the study area. It is unknown how many of these attendants there are. These are mostly homeless people and will be difficult to train to become formal parking attendants. This issue can be solved by providing shelter for the homeless.
- ❖ Government representatives mentioned that the public transport service needs to be improved in order to stimulate the usage of alternative transport mode for civil servants.

3 Analysis of parking policies applied in other countries

3.1 Introduction

An investigation has been carried out on how other Central and South American cities regulate on-street public parking, it provides ideas and examples of successful parking management measures. The analyzed cities are:

- ❖ Mexico City (Mexico)
- ❖ Medellín (Colombia)
- ❖ Rosario (Argentina)
- ❖ Kingston (Jamaica)
- ❖ Antigua Guatemala (Guatemala)
- ❖ Georgetown (Guyana)

Moreover, **no information was found on the public parking regulations** nor on any plans for future measures to be implemented in the next cities:

- ❖ Managua (Nicaragua)
- ❖ San Salvador (El Salvador)
- ❖ Tegucigalpa (Honduras)
- ❖ Ciudad de Guatemala (Guatemala)
- ❖ Ciudad de Panama (Panama)
- ❖ Santo Domingo (Dominican Republic)

Therefore, this document omits the study of the cities mentioned above, although it would have been interesting to investigate their operations given their similarities to Paramaribo.

3.2 EcoParq – Mexico City, Mexico

As part of the city's Green Plan (Plan Verde) transportation strategy, the Mexico's Federal District government installed multi-space parking meters in many Mexico City areas in 2007, as part of the **EcoParq system**. Despite this, just 10% of the city's public parking supply is regulated and includes a parking fee.

EcoParq system is a tool for controlling and collecting money from on-street parking in Mexico City, using a set of equipment, devices, electronic applications, infrastructure, and other elements to regulate and register the use of on-street parking by vehicles and motorcycles, in exchange for payment of a previously authorized fee.

The installed parking meter system aims to reduce the use of private vehicle, to regulate the on-street parking practices, to maintain an adequate availability of on-street parking lots and to redistribute the social cost of land used for car parking.

EcoParq system is **implemented in seven of the neighborhoods** that concentrates city's economic and cultural activities.



Figure 3. EcoParq system implementation area. Source: EcoParq

The days on which parking fees must be paid, as well as the payment schedule, change per city area.

General payment schedule is from **Monday to Friday, from 8 a.m. to 8 p.m.** However, this timetable varies in the most central areas; Monday and Tuesday is also from **8 a.m. to 8 p.m.** on, but from **Wednesday to Sunday it goes from 8 a.m. to 1 p.m.**

The parking duration limit in the EcoParq areas is **three hours**, to ensure a minimum rotation.

The parking fare is **\$2.80 pesos per 15 minutes**; there is no hourly rate. There are three options of payment:

- ❖ By cash, directly paid in the parking meter, as part of a pay-and-display program
- ❖ A prepaid card (“MUEVE CIUDAD”)
- ❖ Mobile payment through three different apps:
 - Blinkay
 - Parkum
 - Mueve Ciudad

It is not necessary to leave a payment receipt in a visible area of the car, as the payment is immediately linked to the vehicle registration number.

The system also offers the **Renewable Resident Permit**, which is a parking fee exemption permit granted to residents of the EcoParq zones whose property does not have a garage. This permit is valid for one year, and renewal is free of charge.

Resident Permit users can park in any designated spot near his/her property, in accordance with the map attached to the permit. They have to put a sticker in a visible area of the car indicating that they have a valid permit.

The payment control of parked vehicles is carried out by **checking the vehicle’s registration number**. There’s several teams formed by two people responsible for this task. Each pair check a zone composed by an average of 6 streets during their rounds, which last for approximately 6 hours.

In the event of non-payment or if the parking duration exceeds the time limit set by the payment, the vehicle will be immobilized until payment of the corresponding fine.

3.3 Regulated parking zones (“Zonas de Estacionamiento Regulado, ZER”) – Medellín, Colombia

The system started to operate in June 1999. It was developed in some areas of the city where there was a significant parking conflict and it was necessary to restore vehicular and pedestrian mobility, as well as the restriction of areas designated for parking.

The system is composed by a **set of properly demarcated spots** on public roads where on-street parking is permitted and regulated, with the aim of discouraging on-street parking. The system is divided into White Zones and Regulated Parking Zones (ZER).

White Zones (Zonas Blancas) include clearly marked parking spots with vertical signals that offer free on-street parking for a maximum of 60 minutes. The White Zones are located in linear blocks close to ZER cells. They are a pretty interesting alternative for short-stay users.



Figure 4. Examples of Regulated Parking Zones and White Zones in Medellín. Source: Mayor Office of Medellín

ZER users are charged a usage fee for on-street parking. A market study was carried out before setting the cost, establishing an average of the parking fees in the sector where the ZER zone is located. The rate was set higher than this average.

There are a total of **1,523 ZER cells**, including 1,445 ZER spaces for automobiles and 78 for motorcycles.

Timetables and fares vary depending on the sector. The general payment schedule is from **7a.m. to 7p.m. from Monday to Saturday**, but there are wide variations depending on the area in which the ZER is located. The service is extended to the closing hours (1a.m.) of public places in night activities zones.

Car parking fees range from **COL\$3,700 to COL\$6,100** per hour, the closer areas to the city center are the more expensive. Motorcycle rates are significantly lower, ranging from COL\$1,400 to COL\$3,400.

Fare payment is made **directly to an operator**, who must give a proof of payment ticket to the user. This ticket must be left in a visible part of the vehicle.

Another group of operators will verify the **ticket's presence and its validity** (if the parking time exceeds the paid period).

People who can verify living in a ZER zone have the possibility of getting a special permit which exempts them from paying in specified areas near their residence. There are also reserved parking spaces for people with reduced mobility throughout the city. These places are free of charge if the user has the appropriate badge.

3.4 Ticketed on-street paid parking – Rosario, Argentina

Since 2001, the city of Rosario has had a metered parking system in its Central Area, with two clear objectives:

- ❖ The discouragement of entering to the area using private vehicle by establishing a fee for on-street parking.
- ❖ Setting the priority of using these spots for limited-duration parking over day-long parking, by the application of a limitation of parking time to a maximum of three hours

The paid on-street parking schedule is **Monday to Friday from 9 am. to 9 p.m.** On **Saturdays**, it is only operated from **9a.m. to 12p.m.**, and it is free of charge on Sundays and public holidays. Parking duration is limited to a maximum of three hours.

The metered parking area is **divided into three zones**, according to their proximity to the center, with zone A being the closest to the center. The parking fee varies according to the zone, and it increases with the duration of the parking.

Table 2. Parking rates in Rosario, Argentina. Source: Government of Rosario

Zone	First hour	Second hour	Third hour
A	\$57.00	\$71.20	\$85.50
B	\$47.00	\$58.70	\$70.50
C	\$37.00	\$46.20	\$55.50

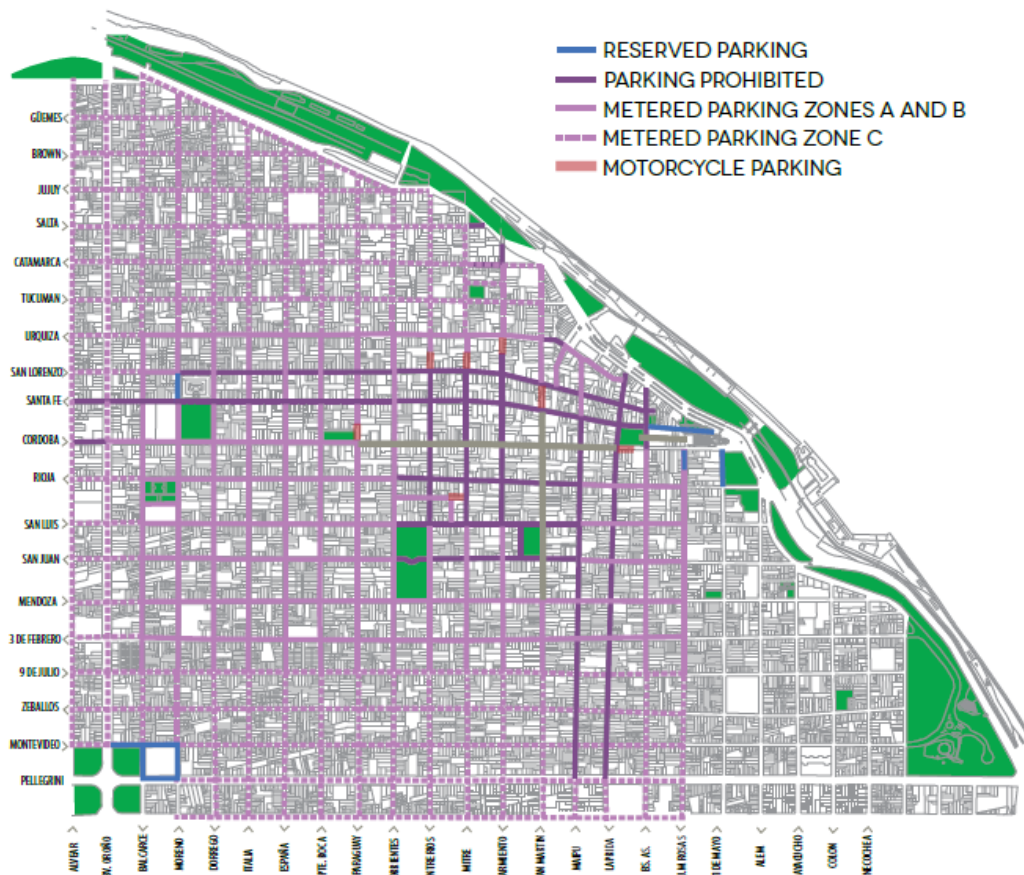


Figure 5. Rosario’s parking regulation map. Source: IDB

The payment can be made through three different options:

- ❖ In the parking meter
 - By cash

- “MOVI” - Contactless rechargeable card
- ❖ Mobile payment by app (“Sistema Movil TR”)

3.5 Public on-street parking – Kingston, Jamaica

Through support of local companies, institutions, tourism, and community-wide engagement in social and cultural events, the Kingston City Council offers municipal parking to help retain and enhance the city center. Parking is planned and managed together with other modes of transportation, such as walking, cycling, public transportation, and auto prioritization, to make it part of the answer to the dilemma of conflicting land uses.

The city manages and administers a number of parking choices (including 4,000 parking spots), from those there are approximately 1,400 on-street pay-and-display or metered parking spots.

The metered parking area payment schedule is **Monday to Friday from 7a.m. to 1a.m.**, and the cost of the stay varies from **\$1.50 to \$2** depending the proximity to the city center. The parking duration limit is set at three hours

Most residential streets in the city's core district provide free parking. However, there are several where parking is banned for an hour in the morning (8 a.m. to 9 a.m.) and afternoon (5 p.m. to 6 p.m.) in working days (Monday through Friday) to prevent all-day parkers from occupying the spots in these residential streets for too-long periods of time.

There are different spots reserved along the city for persons with mobility impairments; they are called **Accessible Parking Zones** and are marked with a regulatory sign.

There is also a remarkable amount of municipal off-street car parking available to all users, with different rates and payment methods, and with parking duration limited to 3, 4 or 24 hours.

The city has teamed up with HonkMobile to provide a new option to pay for parking at all Municipal Pay & Display parking lots and accessible on-street parking spaces around the city.

The HonkMobile system works with an **app that allows users to locate themselves and pay for parking**. Parking meters are still available, this is just another option to improve the user’s experience.

3.6 Public on-street parking – Antigua Guatemala, Guatemala

In the city of Antigua Guatemala, there are regulated parking zones in the city center, which are delimited and marked areas of the public road. The payment is mandatory from **Monday to Sunday, from 7 a.m. to 2 p.m.**

A unique **payment is made to a Municipal Police officer** at an authorized collection point, which is valid for an unlimited parking time. Rates vary according to the type of vehicle and the day of the week:

- ❖ Private vehicles (up to 7 passengers):
 - Monday-Friday: Q10.00
 - Saturday, Sunday and public holidays: Q20.00
- ❖ Buses (16 to 30 passengers):
 - Monday-Friday: Q40.00
 - Saturday, Sunday and public holidays: Q80.00

Annual parking permits can be purchased for Q400 (for private vehicles with up to 7 passengers) to Q1,000 (for commercial vehicles and for buses with 16 to 30 passengers). These permits are available to any kind of user.

3.7 Public on-street parking – Georgetown, Guyana

Previously, parking in Georgetown, Guyana, was carried out without any type of organization or legislation. No regulations, limitations or fees had been established, and it was common to find vehicles parked in areas not

designated for parking or in the wrong orientation, which hindered the flow of traffic. In addition, since no tariffs or time restrictions were imposed, vehicle turnover was minimal, which greatly affected mobility in the busiest areas.

In recent times, a parking policy has been introduced that aims to correct the problems observed. This makes payment mandatory between 7 a.m. and 10 p.m. from Monday to Saturday in all off-street parking spaces in the city, except for those spaces reserved for groups with special needs. Parking is limited to a maximum of 2 hours.

There are also permits for residents, which allow them to park for long periods of time by paying an annual fee, and they must have a badge on a visible part of the vehicle that certifies that they have obtained the permit.

The fixed rate does not vary according to the location of the parking space, and is fixed throughout the city. It is an hourly rate of \$2/hour. The fee can be paid either manually (card and cash) at the various parking meters strategically placed throughout the city or via cell phone through an APP that allows telematic payment. Payment is controlled by inspectors who check the vehicle's license plate number.

3.8 Conclusions

In all the analyzed cities there was mobility and parking problems in the city center before the implementation of parking regulation policies. Parking supply was insufficient to satisfy the demand generated in some areas. In addition, vehicle rotation was quite low and vehicles tended to stay for long periods of time. As a result, users who needed to access high-demand areas had to remain in circulation for a long period of time while they found a free parking space. These are the same problems as those identified in Paramaribo inner city.

In the 6 cities studied, the main parking regulation tool is the implementation of a parking fee during a set schedule. Rates may vary depending on the area or the duration of the parking period. In most cases, special permits are included for residents, which allow them to stay for long periods of time.

Another common regulation that has been observed (except Antigua Guatemala) is to set a parking duration limit, it is usually 2 or 3 hours. This avoids long stays and increases vehicle rotation, thus improving parking and traffic conditions in the implementation area.

Furthermore, payment schedule varies depending on the day of the week; for example, on Saturdays, a parking fee is just applied during morning hours. In high commercial activity zones, or in high leisure activity zones, the timetable usually covers a major part of the day.

In Rosario, the rate not only varies according to the zone, but also according to the duration of the stay. The rate increases proportionally to the time the vehicle is parked. This measure is very effective in promoting vehicle rotation, as long stay stays are highly penalized.

In Medellín, there are short-stay free parking spots (white zones), which are an interesting way to regulate parking rotation. Through this measure, short-stay users are clearly favored over those who intend to park for longer periods, encouraging short stays.

Antigua Guatemala is the only analyzed city where the parking fee does not depend on the duration of the parking, it is a single tariff for unlimited parking duration.

The following table shows a brief summary of the information given previously. It shows the main features of the applied parking regulation in each city that has been studied, focusing on the payment schedule, the time restriction, the rate type and its cost, the payment method and the way to control that it has been paid.

Table 3. Summary of the analysis of the parking policies in several cities. Source: Own elaboration

City	Days of payment	Payment timetable	Time restriction	Parking fee	Reserved parking places	Technology	Control Mechanisms
Ciudad de México (Mexico)	Monday to Friday	Monday- Friday: 08:00-20:00	3 hours	MEX\$2.80/15min.	Resident permit	Parking meter (cash or card)	Checking of vehicle's registration number by groups of two operators
	Monday to Saturday close to the center	Wednesday-Saturday in central areas: 08:00-01:00				Prepaid card	
						Mobile payment (app)	
Medellín (Colombia)	Monday to Saturday	07:00-19:00	None	Vehicles: COL\$3.7-6.1/hour	Resident permit	Payment to the operator + payment proof ticket	Ticket checking by an operator
				Motorcycles: COL\$1.4-3.4/hour	Reduced mobility spots		
Rosario (Argentina)	Monday to Saturday	Monday- Friday: 09:00-21:00	3 hours	Zone A: \$57.00-\$71.20-\$85.50/hour	None	Parking meter (cash or rechargeable card)	Checking of vehicle's registration number by an operator
		Saturday: 09:00-12:00		Zone B: \$37.00-\$46.20-\$70.50/hour		Mobile payment (app)	
				Zone C: \$37.00-\$46.20-55.50\$/hour			
Kingston (Jamaica)	Monday to Friday	07:00-01:00	3 hours	J\$1.50-\$2.00	Resident permit	Parking meters	Checking of vehicle's registration number by an operator
					Reduced mobility spots	Mobile payment (app)	
Antigua Guatemala (Guatemala)	Monday to Sunday	07:00-14:00	None	Monday-Friday: Q10.00	None	Payment directly to police officer in a collection point	Ticket checking by an operator
				Saturday-Sunday: Q20.00			
Georgetown, (Guyana)	Monday to Saturday	07:00-22:00	2 hours	G\$2/hour	Resident permit	Parking meters	Checking of vehicle's registration number by an operator
					Reduced mobility spots	Mobile payment (app)	

4 Main guidelines for parking management

4.1 Parking policy basic principles

Kodransky, M., Hermann G., ITDP, 2011 introduces a series of ideas and parking policies recommendations that can be considered for the development of the *Parking Management Policy and Strategy for the Paramaribo Inner City*. These recommendations, also included at IDB, 2011 are:

- ❖ Charge for on-street parking in line with market conditions to ensure that performance standards, such as occupancy rates, are met
- ❖ Erase minimum parking requirements (number of parking spots needed per area)
- ❖ Fix maximums to control total supply
- ❖ Reduce or erase parking near public transportation stations
- ❖ Consider constructing parking-benefit districts where parking meter income is reinvested within the community
- ❖ Transform car street space into more social uses such as bicycles, bus lanes, wider sidewalks, etc.
- ❖ Implement parking technology that provides maximum flexibility to both consumers and policy managers.
- ❖ Create parking spots that are fully integrated with surrounding buildings and pedestrian areas
- ❖ Incorporate parking policies into metropolitan transportation planning
- ❖ Include innovative parking management within government initiatives on “livability”, traffic management, air pollution strategies, climate change action and innovative financing programmes
- ❖ Strengthen enforcement of on-street, off-street, illegal, and informal and legal/formal parking, which is critical for all parking policies to be effective.

To define the optimal policy, it is important to adapt the measures to the different types of parking, since each one has its own set of operational, regulatory and functional needs. Depending on the characteristics of the parking spot, the following classification can be made (according to IDB, 2021):

- ❖ On-street parking: on the public roadway. Often reduces pedestrian areas.
 - Paid on-street parking: payment is required, either legally or informally.
 - Free on-street parking: free of charge.
 - Formal on-street parking: limited parking spaces and a regulated fee.
 - Informal on-street parking: part of paid on-street parking, referring to any parking that has an informal service (someone who has taken the spot and watches the vehicles parked there).
 - On-street informal service with a “regulated” rate: although the service is informal, a method has been established to standardize on-street parking rates.
- ❖ Off-street parking: off the public roadway, either operated by public or private sector.
- ❖ Use-based off-street parking: linked to a specific land use.

The main parking management strategies can be divided into four categories:

1. Pricing mechanisms: establish a fee.
2. Regulatory mechanisms: control of location and the number of the parking spots.
3. Mechanisms based on physical designs: the geometrically design can help to improve the quality of the public space and disincentive the use of the private vehicles.
4. Mechanisms based on service’s technology: they complement the previous ones.

The next sections go through the different mechanisms in further detail.

4.2 Economic mechanisms: charge for on-street parking

4.2.1 Main aspects

On-street parking fees seek to optimise the use of public space, influencing the parking rotation and reducing the number of vehicles that hinder traffic while looking for a parking spot. Users circulating in search of a free or cheaper parking spot on the public road obstruct the flow of traffic, while those already parked occupy the available space preventing a rotation that would allow more users access to the area.

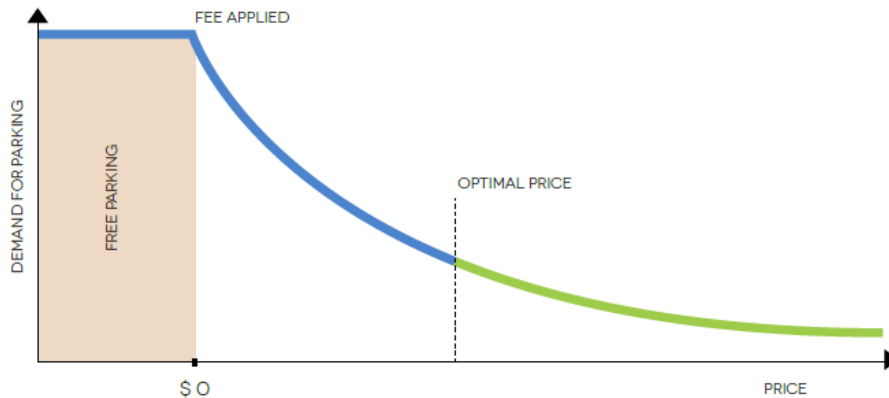


Figure 6: Relationship between parking demand and its price

The optimal tariff is one that guarantees a high occupancy and parking rotation so that vehicles that want to park do not spend a lot of time looking for a parking space; different studies conclude that the optimal occupancy is around 85%.

Parking prices should be set in accordance with the current parking demand as well as the desired demand in the future. Demand varies based on the density of commercial, residential, and industrial plots, hence prices will change based on the particular features of the area.

The reduction of available parking spots and/or the increase in the parking cost may cause users to look for another parking spot, postpone their journey, or take another form of transportation.

To encourage customers to use off-street facilities, standardized pricing, both on and off-street, is critical.

4.2.2 Other aspects to considered

4.2.2.1 Free parking for a limited period of time

It consists of allowing parking free of charge in some designated areas but limiting the duration of the parking period.

This measure is appropriate for areas where parking is required for running short errands and where a high rotation of parked vehicles is desired.

Vehicles must indicate at what time they have arrived in order to control the correct use of these areas; this can be done using time discs.

The application of this measure has been observed in Medellin, through the *white cells* regulation.

4.2.2.2 Free parking for motorbikes

In the vast majority of cities, motorbikes are exempted from parking fees in regulated parking zones, as they are considered a more sustainable transport mode, especially when only one person is travelling. Furthermore, motorcycles take up significantly less space on public roadways, both in traffic and while parked.

It should be noted that, in the long term, this measure may have a rebound effect, resulting in an exponential growth in the usage of motorcycles rather than alleviating the area's traffic and parking problems.

4.2.2.3 Residential permits

Areas with high economic and commercial activity can create parking pressure in neighboring residential areas. This results in the need to create parking permits for residents.

The parking needs of residents are very different from those of workers or visitors, as residential demand tends to be concentrated in the evenings and weekends.

4.2.2.4 Progressive rates

Implementation of a pricing system that applies a minor rise in charges as the parking durations increases, to account for the increase in marginal charge caused by the presence of a car (first hour is cheaper than the second hour). These measures aim to discourage long stay parking and encourage vehicle circulation.

The application of this measure has been observed in Rosario, where the prices increase by hours.

4.2.2.5 Set adequate time units

Establish a limit for the parking duration depending the characteristics of the area and the user profile, for example, set short-time limits for high rotation areas as busy commercially zones and long stay limits for residential zones.

4.3 Regulatory mechanisms

4.3.1 Regulation of parking locations

It is possible to restrict or even eliminate vehicle parking in areas where pedestrian priority has been established.

It is possible to set specific daytime hours when parking is allowed in those zones for goods distribution. Short stay parking special permits can also be obtained.

4.3.2 Defining supply in a reasonable way and setting limits on parking supply

Limiting the quantity of available public parking places in city centers is beneficial; it increases the difficulty of finding parking, forcing some users to not to travel or to travel by another mode of transportation, improving traffic flow and reducing congestion in a given area.

The number of parking spaces available should be defined according to logical criteria, in accordance with the territorial planning of the area and the expected demand.

4.3.3 Set parking maximum caps

Historically, a minimum number of parking spaces was required for new urban developments such as shopping centers; as a result, much of the access was by private car.

The new trend is to set a maximum number of parking spaces in new developments to encourage the use of more sustainable modes.

4.4 Mechanisms based on physical designs

4.4.1 Stripes on the ground

One of the most common methods is to use lines painted on the ground to identify the public road areas where parking is permitted. This allows to differentiate the space reserved for parking from the rest of the public road. They can also include symbols to identify if the place is reserved for a specific user profile, such as persons with reduced mobility or residents.

4.4.2 Bollards

Short, thick posts spread over a whole city in order to prevent vehicles to park in some areas where they may block pedestrian walkways.

Sometimes these bollards are retractable, so that they can be removed to allow vehicle access for commercial purposes, residents or for emergency reasons.

4.4.3 Parking geometry

A strategic arrangement of existing parking spaces can help other road users feel more comfortable, as it is more difficult to drive, making it necessary to travel at low speed.

Some examples are:

- ❖ Alternation of parking spots on both sides of the street.
- ❖ Cycle paths protected by parked cars (barrier between cyclists and the movement of traffic).
- ❖ Create a meandering passageway that forces vehicles to move at the pace of pedestrians.
- ❖ The presence of trees, benches and other physical obstacles signal to vehicles that they are entering these spaces as guests.

4.5 Mechanisms based on service's technology

4.5.1 Payment methods

New modes of payment have emerged in recent years, simplifying and speeding up the payment process, benefiting the user but also the control of the system. These new technologies coexist with the classic payment methods, offering a wide range of possibilities to meet the user's profile. The most common payment methods are:

- ❖ **Parking meter:** : this payment device is located in the public road and issues a control ticket certifying that the registration number of the vehicle for which it has been obtained has valid parking rights (parking time and rate type) according to the kind of zone in which it has been parked.



Figure 7: Parking meter example

When using a parking meter, the user must select the type of regulated parking corresponding to the parking space where the vehicle is parked, enter the vehicle registration number and make the payment, either by cash or card.

The ticket given by the parking meter shows the time when the user must finish the parking stay. It must be left in a visible part of the vehicle, so that the inspector can check the parking rights details of the vehicle.



Figure 8: Example of ticket given by a parking meter

Some cities have more advanced systems that makes the acquisition of this ticket not strictly necessary, since the vehicle's registration number is inputted during payment, it is already registered in a digital voucher.

- ❖ **Prepayment card:** rechargeable cards with which it is possible to pay for parking. It works as a "wallet card", the user can load the desired amount of money on the card, either through parking meters or online, and make the payment by using the card at the parking meter closest to his/her parking place.

This method makes payment faster and more convenient for the user. Normally, the parking fee is slightly reduced for users who use this type of card.

- ❖ **Mobile payment by means of an APP:** an alternative that offers the possibility to pay the parking fee via the use of a mobile application, eliminating the need of cash or credit card for the payment.

These mobile applications can be downloaded free of charge to pay for regulated parking. They facilitate the management and payment of parking for residential, professional or visitor users.

These apps can also include maps that indicate the parking status in a given area in real time: type of parking space, rates, occupied and available spaces, etc.

A digital ticket is obtained easily and immediately, which can be checked securely and in real time by the corresponding control system and, therefore, it is not necessary to use the parking meter or place the ticket in the vehicle.

The payment process is greatly simplified, making it considerably faster and more effective. Furthermore, it is economically beneficial to the system's owner since it prevents vandalism and the theft of parking meters and the losses that result from this practice.

- ❖ **Resident's permits:** it is common to find areas whose regulation include special permits for residents. To obtain such a permit, payment must be made either at a parking meter or online. They must carry a badge showing that they have a resident's permit in a visible part of the car. In modern systems, this

badge is not necessary, and the validity of the permit is checked by means of the vehicle registration number, which is recorded at the time of payment.

4.5.2 Smart parking meters

They have magnetic sensors that detect the vehicle's metal mass. If the car is parked for longer than the payment allows, it sends a signal to a police station as well as an alarm message to the driver's mobile phone.

4.5.3 Electronic Parking Guidance Systems

In certain cities, there are real-time message tables, which are located in certain areas of the road and advise the driver about the closest available parking spots.

As a result, the user is guided to their goal while also reducing the time spent looking for a parking spot and, as a result, the congestion in the area.

5 Parking policy implementation proposal

5.1 Main ideas

There are several techniques for controlling and regulating public parking in a city. These mechanisms aim to **improve the supply and reduce the demand** for parking spaces in a given area, as well as to increase the rotation of parked vehicles and minimize the average length of stay of users; besides to **contribute to improve traffic flow** in the study area.

Parking policies integrate several of the mechanisms described in the previous sections, the final regulation is the result of combining them depending on the characteristics of the area and the demand.

The most common and efficient mechanism is to apply **pricing mechanisms**, which provokes changes on the user behaviour since some of them will not make the trip or will change to other transport mode if they have to pay for parking. Pricing mechanisms usually include other measures as residential permits, parking duration limits, etc.

According to the ToR, the requirements for the Parking Management Policy and Strategy for the Paramaribo Inner City are:

- ❖ The entire Historic Center will be a paid-parking zone; the study will analyzed different policies for each area of the Historic Center.
- ❖ The street parking price structure must consider an 85% occupation rate as an objective.
- ❖ The tariff strategy must consider the complementary role of off-street and on-street parking.
- ❖ The plan will also consider the enforcement measures needed to dissuade infractions.
- ❖ The street parking locations must incorporate the restrictions and guidelines established in the SUMP (Sustainable Urban Mobility Plan of Paramaribo).
- ❖ The implementation must take into account the design requirements presented in the SUMP.

These guidelines, together with the analysis of other parking regulations, defined the structure of the proposed parking policy for Paramaribo inner city:

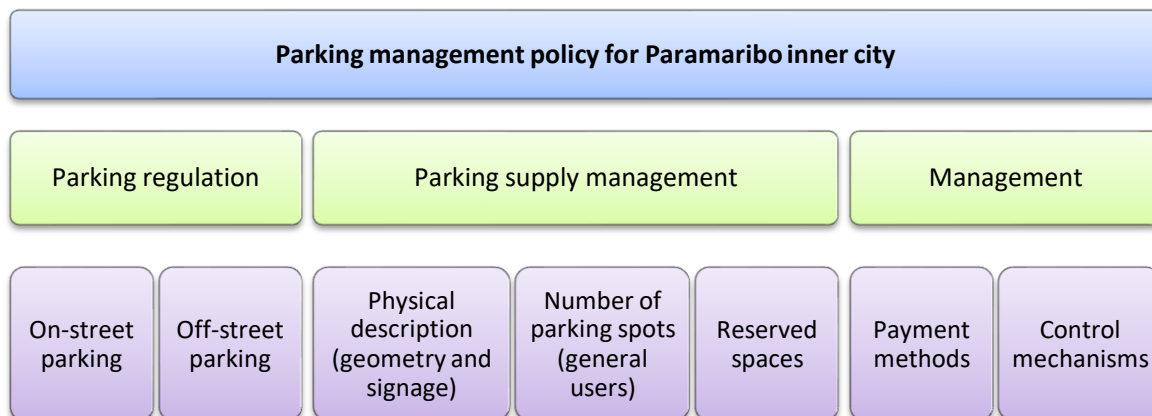


Figure 9. Scheme of the parking policy for Paramaribo inner city. Source: Own elaboration

- ❖ Parking regulation: define the normative to be implemented
 - **Timetable:** During which hours are specific zones regulated?
 - **Time restriction:** Is there a maximum number of hours of parking?

- **Parking fee:** What tariff strategy will be used?
- ❖ Parking supply management
 - **Physical description:** How each parking typology will be identified? What dimensions each parking space should have?
 - **Reserved parking places:** How will parking places be reserved for users with reduced mobility, residents, businesses, ambulances and other services?
 - **Number of parking spots for general users:** How many places will be available for visitors? What regulations apply to them?
- ❖ Control mechanisms
 - **Payment methods:** What technology is most appropriate for Paramaribo?
 - **Penalties and inspectors:** What control mechanisms would be most appropriate to detect which vehicles violate the regulations? What penalties should be applied?

5.2 Parking regulation for the regular users

5.2.1 On-street parking

5.2.1.1 Proposal summary

The final proposal for parking regulation has been defined on the basis of the conclusions of the diagnosis:

- ❖ There are two main user profiles:
 - Long stay users: 23% of the users stay more than 6 hours. Especially in blocks 4, 5 and 6.
 - Short stay users, especially in blocks 2 and 3 which are the shopping areas.
- ❖ The rotation rate is approximately 2 vehicles/place; the average parking time is 3.5–4 hours
- ❖ Demand is concentrated in the working hours (7:00-15:00).
- ❖ Public transport is currently not a competitive alternative to the private car. Parking fees must be affordable since an important part of the parking demand are workers (56% of the WTP survey) who have to come to the city center every day.
- ❖ Although on-street parking in the city center is currently free, giving some money to the illegal parking attendants is a common practice.

According all these aspects, three types of on-street parking places have been defined to accommodate the different user profiles and the characteristics of the study area.

- I. **Paid short stay regulated spots (blue area):** these parking spots will have hourly rates and parking duration limit, to increase parking rotation. They will be implemented in commercially busy areas and zones where leisure activities are concentrated.

This type of spots is intended for users on **short stays** whose purpose is not related to working reasons, as longer stays are usually due to job-related reasons. Shopping and personal arrangements are the most prevalent reasons for this sort of trip.

- II. **Short stay regulated spots with resident’s special permit:** it is similar to the previous type, but includes the possibility of obtaining a special permit for residents of the area, which allow long-duration stays for a pre-fixed fee.

Non-residents can also park in these parking spots, but with a higher fee than in the blue areas, to favor the residents parking demand and discourage the visitors to park in this area.

- III. **Long stay regulated spots (orange area):** these parking spots will have daily rates (unlimited parking duration for a day); they are primarily intended for long stay users. They will be implemented in the office areas where most of the parking demand are workers.

This proposed regulation seeks to reserve the parking spots in the commercially busy areas for the visitors which purpose is leisure or shopping. One of the current main problems is that workers occupy most of the parking places at first hour in the morning, then other user profiles have difficulties finding parking spaces along the day. The implementation of different types of parking space regulation aims to solve this problem.

5.2.1.2 Paid short stay regulated spots (Blue Zone)

5.2.1.2.1 Area of implementation and general ideas

This type of parking spaces will be introduced in **high-demand areas**, like shopping areas, zones around hospitals, restaurants, etc.

Hourly rates and a **parking time limit** will be introduced, to **increase the rotation** (number of parked vehicles during the day per spot), therefore, to reduce average parking times,

The purpose is to allow as many users as possible to take advantage of the convenience of being able to park their cars close to their destination to carry out leisure activities or run personal errands.

This regulation will be implemented in **blocks 2 and 3** of the study area, they concentrate the commercially busy areas and leisure activities.

Some parking lots in the office blocks (4, 5 and 6) will be also regulate as blue zone; to guarantee a minimum parking supply for short stay users close to points of interest as hospitals, banks, etc.

5.2.1.2.2 Timetable and schedule

It is proposed to implement the payment schedule **from Monday to Friday;** coinciding with the working hours when current parking occupation exceeds 70%.

On weekends the occupation is lower, it is proposed to just maintain the payment schedule **on Saturday mornings**, when there is significant commercial activity in the inner city center. For the rest of the weekend, demand is low, there is no parking problem, and then it is not necessary to have parking fees in these time periods.

The timetable and schedule for the blue zone are:

- ❖ Monday to Friday: from 7 a.m. to 4 p.m.
- ❖ **Saturdays:** from **9 a.m. to 2 p.m.** (just in blocks 2 and 3).

5.2.1.2.3 Time restrictions

To guarantee adequate vehicle rotation and a minimum of available parking places during all day, a maximum parking limit is set at **3 hours**.

5.2.1.2.4 Parking fee

As a maximum parking duration has been established, the most suitable tariff type is the hourly tariff.

Parking fee has been defined based on the analysis of the willingness to pay (WTP) survey and the current hourly prices that some private off-street parking have.

- ❖ The WTP short stay question varied the price of the own-risk parking from 2 to 8 SRD/hour; and maintained the guarded parking price at 10 SRD/hour.

- It was observed that most of the respondents already chose the guarded parking in the first question.
- Considering that the on-street parking will not be guarded, tariffs have to be lower.
- The WTP survey showed that 90% of the respondents will continue parking in the inner center despite the implementation of a parking fee. It is a survey, it gives indications about what will happen but it is not 100% believable, the reality could be different.
- ❖ 46% of surveyed car users pay to illegal parking attendants, usually between 5-10 SRD/day.
- ❖ Tariffs have to be adequate considering the household incomes.
- ❖ Current off-street parking hourly fees go from 5 to 15 SRD/hour.

Based on the results of the survey, the blue zone fee will be set at **6 SRD/hour** (0.25 USD/hour).

5.2.1.3 Paid short stay regulated spots with resident’s special permit (Green Zone)

5.2.1.3.1 [Area of implementation and general ideas](#)

The purpose is to prioritize the residential parking above visitors parking. The regulation for the visitors is similar to the blue zone but residents can apply for a **residential permit** which will allow them to park in any spot of the green zone, without parking limit duration.

Residents must apply for the special permit to the government, the applicant has to prove that he/she lives in the regulated parking zone by means of a proof of census registration. The residential permit has to be renewed every 3 years and the fee has to be paid annually. It can only be one residential permit per household.

Authorized residents' parked vehicles must be identified by a mandatory **parking voucher**, which would be provided by the government once the residential permit application has been approved. The voucher shows the resident's zone and the registration number of the parked vehicle, identifying it as an authorized vehicle.

To reduce the visitors parking in the green zones, the parking fees will be higher than for the blue zone.

Green zones seek to benefit the **residents** of the regulated area, since they have unlimited parking duration in exchange of an economic annual fee. **Short stay residents** can also use green-zone spots, but **their economic conditions will be less favorable** than in the blue or orange zones.

This regulation will be implemented in **block 1** of the study area, which concentrates the residential demand.

5.2.1.3.2 [Timetable and schedule](#)

For both residents and short stay visitors, parking regulation is applied from **Monday to Friday**. Saturday and Sunday parking is free of charge for all users.

It is proposed to implement the payment schedule during the working hours when current parking occupation exceeds 70%.

The timetable and schedule for the green zone are:

- ❖ Monday to Friday: **7 a.m. to 4 p.m.**

Outside this period, parking is free of charge for all the users' profile.

5.2.1.3.3 [Time restrictions](#)

To guarantee an adequate vehicle rotation and a minimum of available parking places during all day, a maximum parking limit is set at **3 hours** for visitors.

Users with a residential permit can park without parking duration limits; they must have the parking voucher in a visible area of the vehicle.

5.2.1.3.4 [Parking fee](#)

Visitors

Hourly tariff is the most appropriate type because a maximum parking duration has been defined.

Parking fee in the green zone has to be more expensive than in the blue zone, to dissuade the use of the green parking spots and reserved them for the residents.

Based on this assumption, the **hourly fee for visitors in the green zones will be 9 SRD/hour** (0.35 USD/hour).

Residents

Residents will pay an annual fee for the residential permit. Right now residents/shop owners pay SRD 2,500 yearly for a permit for a parking space.

With the new regulations, the residential permit entitles the user to park in any parking space in the green zone, the user does not have a reserved parking space of his own. Therefore, it is possible that the resident user may not be able to find a parking space at a certain time of the day.

For this reason, it is considered that residential permit should be cheaper than the current one (SRD 2,500, see 7.3.1). **Annual residential permit will cost 1,200 SRD** (50 USD/year), which equals approximately to 4.5 SRD/day.

5.2.1.4 **Paid long stay regulated spots (Orange Zone)**

5.2.1.4.1 [Area of implementation and general ideas](#)

Potential users of this zone are long-stay users, as the **tariff will be daily**, unlike the blue and green zone tariffs. Only those who intend to stay in the center for a long period of time will park in this zone, as the hourly rate is cheaper for short stays.

It will be implemented in the **office and industrial areas**, where most of the users travel to get to their work place and stay for long periods.

The goal is to allow long stay users to park for a prolonged period of time without worrying about parking duration limits.

This regulation will be implemented in most of the parking supply in **blocks 4, 5 and 6** of the study area.

5.2.1.4.2 [Timetable and schedule](#)

It is proposed to implement the payment schedule during the working hours when current parking occupation exceeds 85%. Payment will be mandatory from **Monday to Friday**. Weekend and holidays parking is free of charge.

The timetable and schedule for the green zone are:

- ❖ Monday to Friday: **7 a.m. to 4 p.m.**

5.2.1.4.3 [Time restrictions](#)

There is no parking duration limits since orange spots will have a daily fee.

5.2.1.4.4 [Parking fee](#)

Daily tariff is the most appropriate type because orange zone is designed for long stay users.

The parking regulation seeks to get short stay users to park in the blue areas and long stay users in the orange; in this way each user profile is closer to its destination.

Based on these assumption, the daily fee in the **orange parking lots will be 15 SRD/day** (0.63 USD/day). Blue zone fee is 6 SRD/hour (0.25 USD/hour), then a parking user who wants to stay more than 3 hours will prefer to park in the orange zone.

A user who parks every working day of the month in the regulated orange zone will spend approximately 300 SRD per month.

In the orange zone, the fee will be daily, it is set at **15 SRD/day** (0.63 USD/day).

5.2.1.5 **Management**

5.2.1.5.1 [Payment mechanisms](#)

The different payment mechanisms must be designed taking into consideration the accessibility to the system of all users' profile; for example, it has to be possible to pay by cash, since not all the parking users may have a credit card.

For the implementation of the parking policy, it is considered that the best payment mechanism is the implementation of **parking meters**, which allow to pay by card or cash; and are the best option in cities where parking users are not used to pay. They're exposed to the open air, so they must suit the local climate, and they must also be very resistant to vandalism or theft.

The user has to go to a parking meter and purchase a ticket which has to be placed in a visible place in the vehicle for control purposes. These tickets contain the registration number, date and time fields that must be informed at the time of activating the right to park, it will be valid from that moment onward, and it is not possible to purchase in advance for a later activation.

It is proposed to design also an APP payment system in the medium-term. When defining the APP system, there are two main options:

- ❖ Open the market and establish a process in which various private mobile application development companies offer the service. Minimum parameters of quality and operation must be identified, which are mandatory for all the companies involved.
- ❖ Restrict the selection to a single company through a public bidding process, in which the administration defines the technical and administrative bases for the bidding process. Once the proposals have been submitted, the winning company is chosen through a bidding process.

The second option is recommended in the case of Paramaribo, as it allows the competent administration to have more control over the collection and management of financial funds and a lower cost for the control and integration of various platforms.

There are also two operating models for user payment collection via APP:

- ❖ APP operator centralizes the collection of all users and periodically makes a transfer of funds to the municipality's bank account, retaining a percentage as management and profit expenses.
- ❖ All payments via APP are paid directly into the municipality's account and the municipality periodically pays the operator through an invoice for APP service management and benefits.

The APP payment rates will not vary from those established for parking meters, although the operator may offer discounts or promotions to customers to attract users, with the company assuming the difference in costs.

It is recommended that the stored user data be managed by the public administration itself, and that the information provided to the operator be limited and in accordance with the relevant regulations.

When defining the operation of the parking meter, it is proposed that the administration submits its installation and operation to a public tender among several candidate companies. The technical, economic, administrative and service quality criteria should be established by the administration itself.

Once the candidate company has been selected, it will be in charge of the implementation of the system and the installation of the devices themselves, as well as the maintenance of the devices.

It will also be responsible for the collection of payments, whether in cash or by credit card (payments will be made to the selected company's account). Periodically, it will make a transfer to the relevant administration, retaining a percentage of the income as management fees and benefits.

5.2.1.5.2 Control and enforcement

The system will need an operations team for the following tasks:

- ❖ Parking meter maintenance and cash collecting: Operating parking meters that are secured devices requires special training. Mechanics must be trained for routine interventions, cash collecting, and more complicated interventions.
- ❖ A team of inspectors authorized to issue fines will patrol streets to check for parking payment. Depending on the enforcement means that have been established, it may be necessary to add technicians to apply and remove wheel-clamp devices. (See section Enforcement and control, below.) The collectors on patrol must wear distinctive uniforms and be identified as a “parking police force”. They'll verify for the presence and validity of the ticket on the vehicle, or, if it's not there, they'll check for the amount of parking time purchased through payment by looking up the vehicle's registration number.



Figure 11. Control team of EcoParq system, Mexico. Source: Source: IDOM, IDB; 2018

In case of the implementation of an APP payment system, the control is carried out with simple equipment connected to the system’s database, in which the operator enters the number plate of the parked vehicles and checks that they have an "active" digital ticket at that time.

The general policy must specify who will administer punishment and which offences will be considered violations of the rules. Fines must be severe enough to prevent users from breaking the regulations, and they must be applied regularly to be effective. The resources required to implement enforcement measures must then be factored into the regulation. This includes deciding the control powers that agents will be granted, as well as the actual mechanisms by which they will be able to exercise those powers, such as car wheel clamps.

When the inspectors detect a vehicle in an irregular parking situation, an "irregularity notice" is issued; and they notify the traffic management body, where the sanctioning procedure is initiated. The fee will depend on the gravity of the infringement).

For a certain period of time after the issuance of the notice of irregularity, the user has the opportunity to regularize his or her situation by paying a regularization fee which can be carried out in the parking meters.

Possible irregular parking situations are:

- ❖ Vehicle parked in a non-designated space
- ❖ Vehicle without parking voucher
- ❖ The vehicle has exceeded the parking time indicated on the parking voucher.
- ❖ Vehicle parked in a reserved space (PRM places, loading & unloading, etc.) without the corresponding permit

5.2.2 Off-street parking

5.2.2.1 Area of implementation and general ideas

Owned **public off-street parking lots** which are also open for the public use will be included in the parking proposal policy, with a similar characteristics as the on-street parkings. The parking policy seeks to increase the use of the off-street parking, thus, in the off-street parking lots it will be possible to pay an hourly fee, as in the blue zones or a daily fee, as in the orange zones.

Off-street parking lots will be guarded, which makes them more attractive for users.

5.2.2.2 Timetable and schedule

Since off-street parking will be guarded, it is proposed to implement the payment schedule all days of the week, including public holidays, **from Monday to Sunday**. The off-street parkings will be opened from 6 a.m to 10 p.m.

5.2.2.3 Time restrictions

There is no parking time restriction in public off-street parkings.

5.2.2.4 Parking fee

Depending on the duration of the stay, the user will be able to choose between two fees:

- ❖ Hourly rate: **6 SRD/hour** (0.25 USD/hour)
- ❖ Daily rate: **15 SRD/day** (0.63 USD/day)

5.2.2.5 Control mechanisms

For the control of off-street parking, it is proposed to install automated barriers at the entrance and exit of the car park.

The user will receive a ticket when accessing the car park, which will contain the following information: time and day of entry and vehicle registration number.



Figure 4. Entrance and exit parking barriers

To leave the car park, the user must validate the ticket in the corresponding machines and pay the amount indicated according to the duration of the parking. The exit barrier is opened by inserting the validated ticket



Figure 5. Automatic payment station

Each car park will be staffed by a minimum of 2 employees who will be in charge of the control and surveillance of the car park.

Due to the opening hours (16 hours), there will be two shifts.

5.3 Parking supply

5.3.1 Elimination of parking places - Regulation of the informal parking places

Informal on-street parking spots are located on sidewalks or roadways which are being used on a regular basis by illegal parked cars and are tolerated by the government. **Informal parking represents 23% of all on-street parking** and occurs mostly in blocks 4 and 1.

The need to eliminate places has been analyzed due to the following reasons:

- ❖ Space limitations and increase walkability.
- ❖ Improve the fluidity of all road users

All other informal parkings will be formalized and included in the parking policy.

On the other hand, actions proposed in other studies should be taken into account:

1. Waterkant rehabilitation: (final design made by ILACO) the project limits parking spaces in Mirandastraat, Waterkant, Oude vlaggenplein, and Kromme elleboogstr.
2. Pedestrian streets included in the SUMP (see 6.1 Pedestrian areas)

The next map shows which parking spaces are proposed to be removed.



Figure 10. Parking places removed. Source: Own elaboration

16% of the current parking supply has been proposed to be removed because of the conversion of the road into a pedestrian street or to improve the walkability. It is proposed to reduce the number of informal on-street parking to 309 parking places which will be included in the parking regulations.

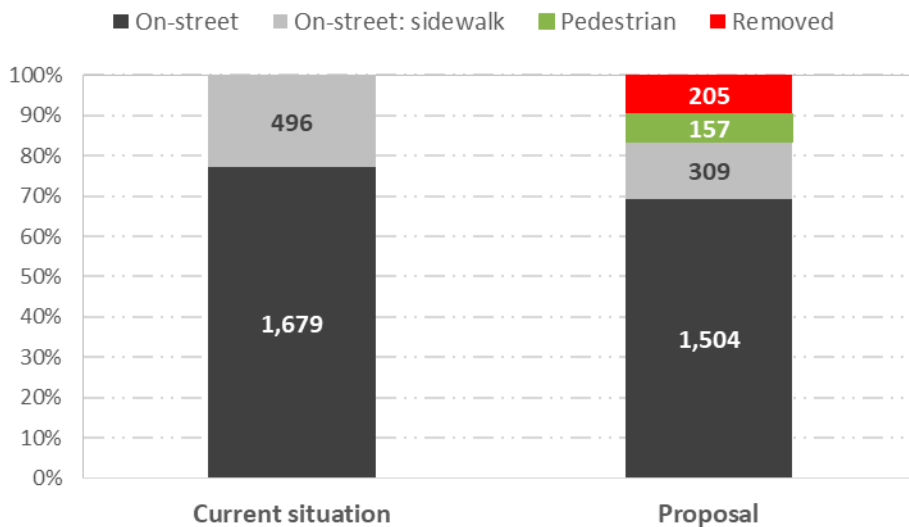


Figure 6. Parking places removal. Source: Own elaboration

5.3.2 Reserved parking places

The parking regulation policy has to take into account the reservation of places for specific user profiles:

- ❖ **Persons with reduced mobility:** this group is more dependent on private vehicles than other road users. For this reason, the parking policy will design different measures aimed at them.
- ❖ **Goods delivery vehicles:** at present, there are no regulations for the distribution of goods, so vehicles load and unload anywhere, often hindering traffic.
- ❖ **Specific users:** some parking spaces have to be reserved for public service buildings such as hospitals, police stations, etc. Nowadays, some private businesses as hotels and shops also have some reserved spaces, at the Governance Plan (7.2) is explained how to include these reserved spaces in the new parking policy.

5.3.2.1 Parking places for persons with reduced mobility

This measure aims to facilitate access to the city center for people with reduced mobility. There will be two different types of parking places:

- ❖ **Parking spaces for PRM visitors:** 2% of public owned parking supply will be reserved for PRM users. Any user with a PRM parking permit will be able to park in these spaces for an unlimited period of time. These places will be free of charge, the only requirement will be the possession of the PRM parking permit issued by the Government, which associates the vehicle to a person with reduced mobility.

The vehicle must be the one in which the person with reduced mobility usually travels, it does not need to be owned by him/her, it can belong to a relative or friend. Only one parking permit will be issued for each person with mobility needs.

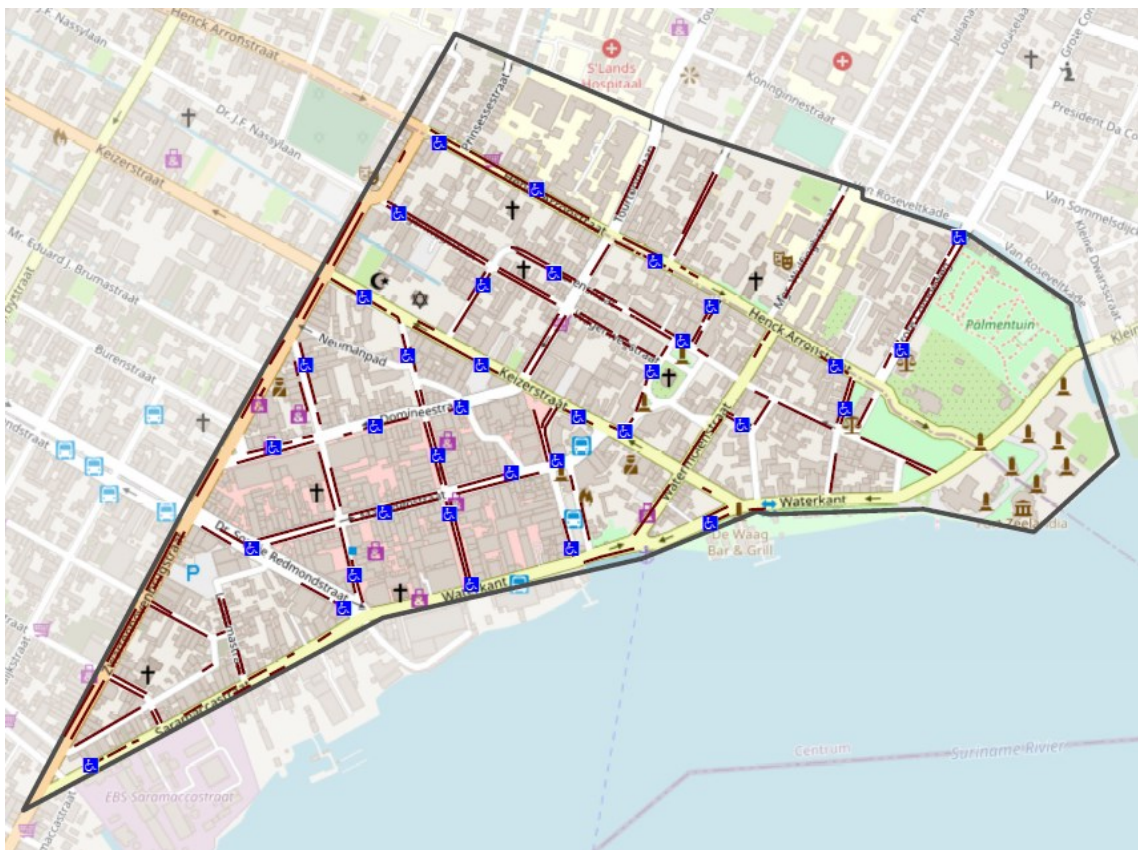


Figure 7. Location of reserved parking places for PRM visitors. Source: Own elaboration

35 parking spaces have been reserved for PRM visitors. This parking typology cannot be located in informal on-street parking lots due to the lack of space.

- ❖ **Parking reserved spaces for PRM residents and workers in the inner center:** PRM who are very regular visitors to the center, that are residents and workers, may request a reserved on-street parking space for them, as close as possible to their residence or usual place of work.

These users will have to go through the same procedure as for obtaining the PRM permit, in addition, they must provide proof that their residence or place of work is in the regulated zone.

The parking space will be for their exclusive use and, in addition to including signage as PRM visitors' parking spaces, they will include the number plate of the vehicle for which the parking space is reserved. Only one parking space will be reserved for each person with mobility needs.



Figure 12. Example of signage for PRM visitors parking spaces (left) and for PRM reserved spaces associated to a vehicle (right)

5.3.2.2 Parking places reserved for loading and unloading

Parking spaces will be reserved for loading and unloading of goods transported by commercial vehicles. The purpose is to facilitate the parking to the good delivery vehicles close to their destination (shop, restaurant, office, etc. where the goods have to be delivered). This will avoid the traffic congestion currently caused by these vehicles when double-parked.

The vehicles will have to have an identification tag that classifies them as a goods vehicle; this will have to be requested from the government.

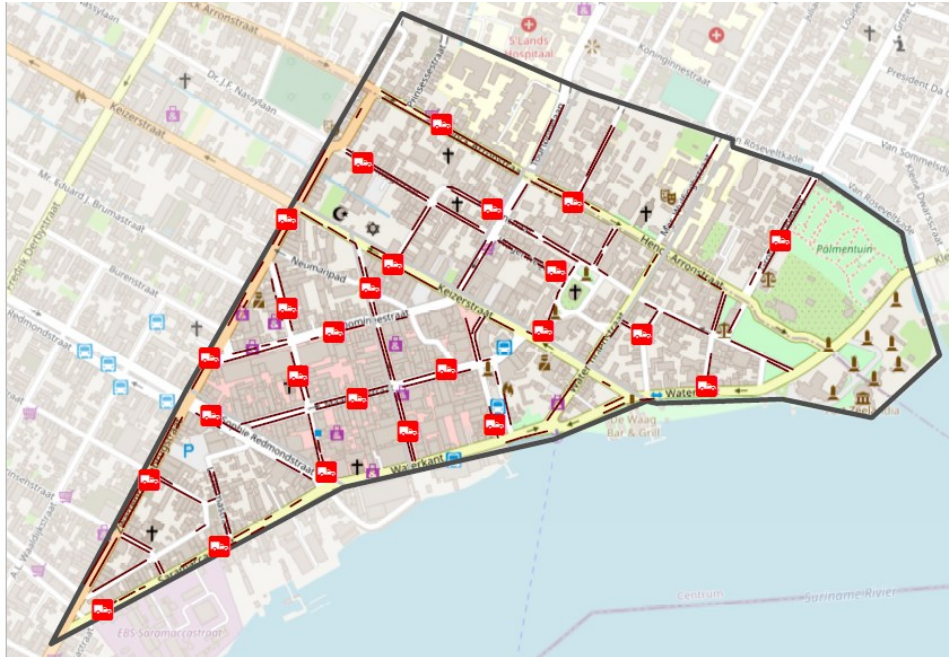


Figure 8. Proposed location for loading/unloading parking places. Source: Own elaboration

The loading and unloading parking places will be for the exclusive use of vehicles with identification tag according to the following timetable:

- ❖ Monday to Friday from 7 a.m. to 4 p.m.

These spaces will be free of charge, but will be limited to a 30-minute parking period to promote the correct rotation and availability for goods vehicles.

25 parking spaces have been reserved for loading/ unloading activities, the locations have been chosen to be close to shopping areas and clusters of offices.

5.3.2.3 Parking reserved for specific uses

It is necessary to reserve some parking places for the vehicles associated to public services as:

- ❖ Ambulances and medical vehicles
- ❖ Court buildings
- ❖ Administrative buildings
- ❖ Others

Currently there are some private businesses such as shops and hotels that also have some on-street parking places reserved. Specific work has to be carried out to review the currently reserved parking spaces, to decide whether some of them should be incorporated into the parking policy, e.g., those that are reserved for the shops’ clients; with the implementation of the parking policy they are no longer needed.

5.3.3 Parking geometry

5.3.3.1 General spots

On-street parking spots must respect visibility and security requirements at crossings; the SUMP defines a no-parking zone a minimum of 6 m before the crossings.

On the other hand, minimum parking spot dimensions are defined at the SUMP depending on the orientation of the parking lot:

1. **Parallel on-street parking:** this typology is the best for narrow streets, since the parking lane just occupies between 2.1 to 3m. The SUMP suggests that parking spaces must have a minimum length of 6.5m; but different parking design manuals indicate that between 5.5-6 m is enough. The proposal will consider parking spaces of 6m.

The width of the parking spaces depends on the location and type of space, and it varies from 2.00 m to 2.5 m, on high-volume streets or where transit operates next to a parking lane, a 2.5 m-wide parking lane is recommended.

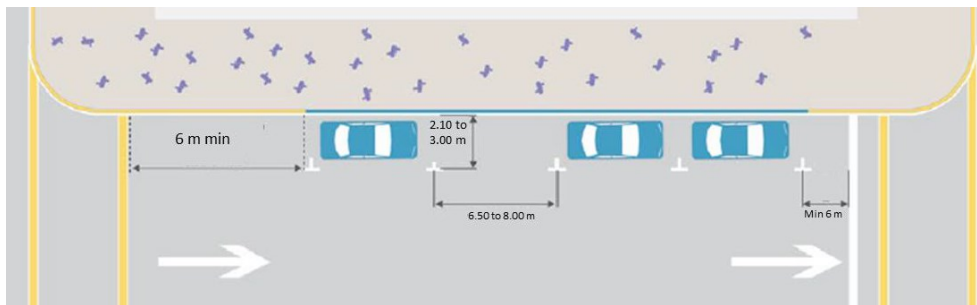


Figure 13. Proposed dimensions for parallel on-street parking. Source: IDOM, IDB; 2018

2. **Perpendicular street parking:** this configuration offers a higher number of parking slots but occupies a minimum width of 5.5 m.

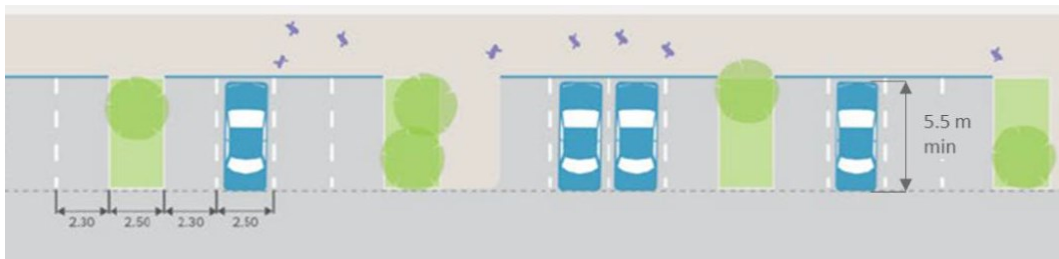


Figure 94. Proposed dimensions for perpendicular on-street parking. Source: IDOM, IDB; 2018

3. **60°-angle parking:** this configuration makes maneuvering easier, but takes up a lot of space on the road.

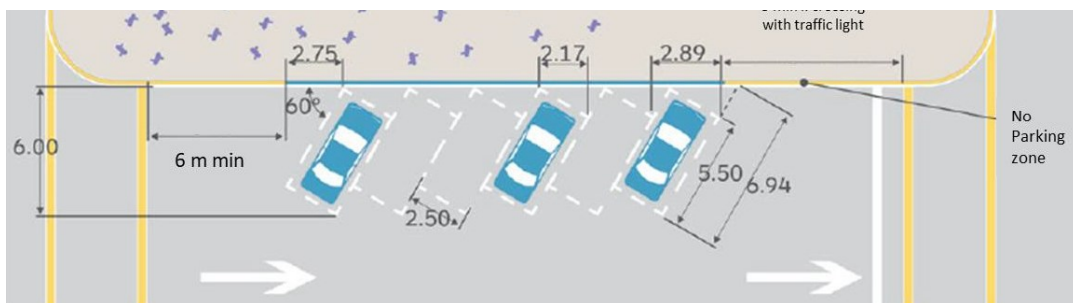


Figure 105. Minimum dimensions for 60-degree angle parking. Source: IDOM, IDB; 2018

5.3.3.2 Parking spaces for loading and unloading

One of the proposal of the SUMP to improve the mobility in the inner city is to establish restrictions on vehicles that can transit through the main economic area of the Historic Center.

The proposal limits access to the inner city for vehicles with:

- ❖ Maximum **three axles** inside the Historic Center.
- ❖ Maximum weight of **seven tons**.
- ❖ Dimensions up to 7 m long x 2 m wide x 2.75 m tall.

Bigger vehicles can circulate through the perimeter of the inner city center.

Taking into consideration this limitations, the length for the loading and unloading parking spaces must be a minimum of 10 m (length of the vehicle + space for the loading).

5.3.3.3 Parking spaces for persons with reduced mobility

Different design manuals have been consulted to design the minimum requirements for PRM parking spaces.

For this typology, besides the space for the vehicle, an approximation zone of lateral access must be considered; this zone must have a 1.5m width.

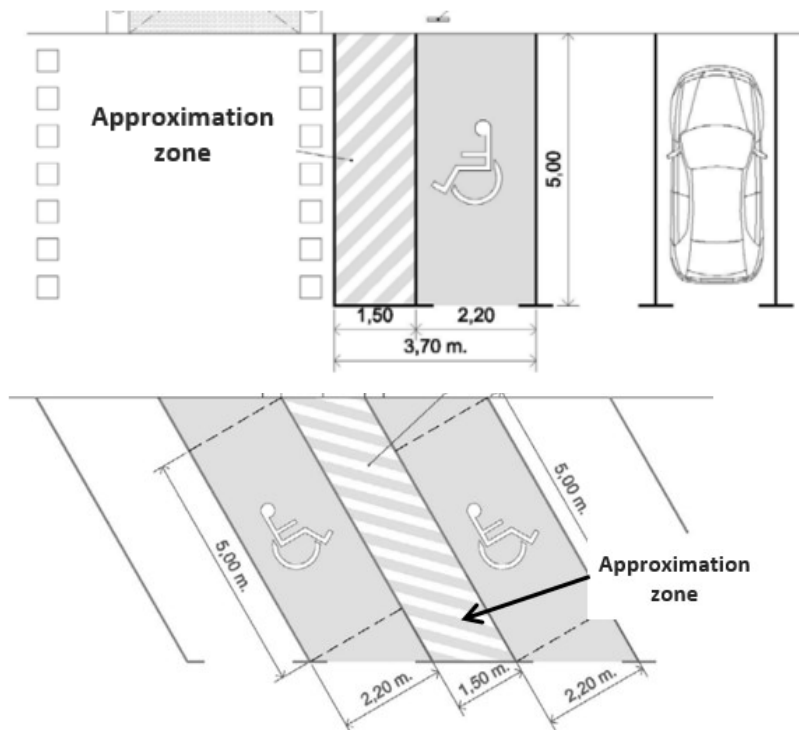


Figure 116. Recommended dimensions for PRM parking spaces (perpendicular and 60° orientation parking). Source: BOE

5.3.3.4 Parking orientation proposal

Current parking orientation has been evaluated and adjusted in those parking locations that have been deemed required, based on the parking guidelines set in this section and the input acquired during the field studies. In the next images the proposed parking orientations are indicated:

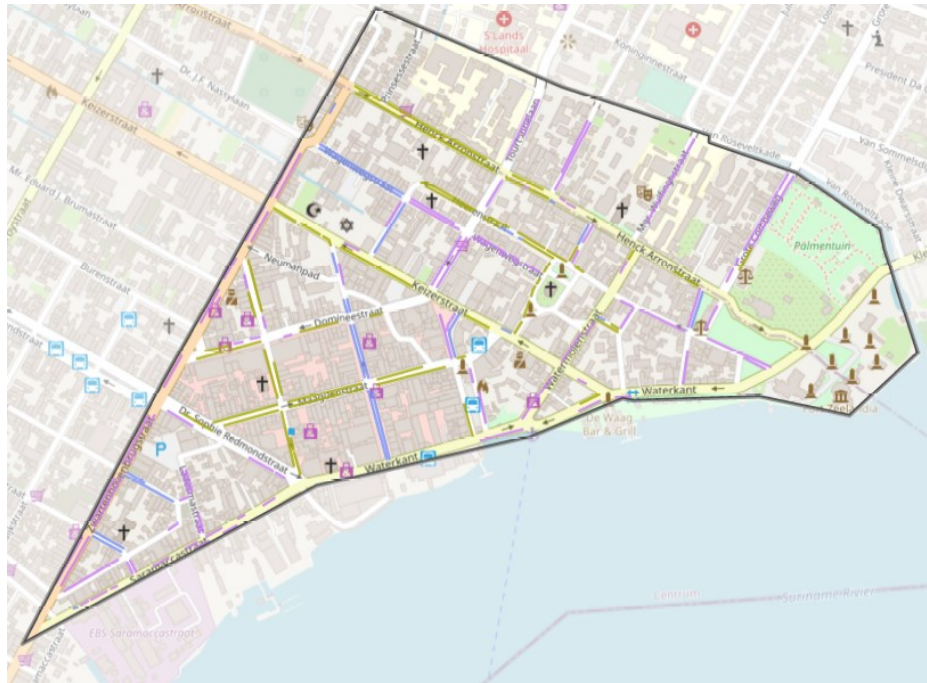


Figure 12. Parking orientation proposed. Source: Own elaboration

5.3.4 Signalization of the parking places

During the field studies, one of the aspects to improve that has been detected of the current parking supply is the lack of signalization of parking spaces.

One of the measures of the parking policy will be to improve the identification of the parking spots, both vertically and horizontally; the signs will indicate parking requirements.

It is important to take into consideration the characteristics of the study area, Paramaribo is a flooding likelihood area, and then, horizontal signalization must be always accompanied by vertical signs.

Horizontal signalization

Each parking space must be marked on the roadway with paint. The color will depend on the parking regulation (blue, orange or green); so it is easier to identify them.



Figure 137. Example of perpendicular signaled blue zone (left) and parallel orange zone (right)

One of the SUMP recommendations is to demonstrate the segregation between the roadway and the sidewalk, considering the high illegal habit in the inner city, to prevent the invasion of the sidewalks.



Figure 148. Example of bollards to avoid illegal parking

Vertical signalization

In addition to painting each parking lot in a different color depending on the applied regulation, it is necessary to install vertical signs indicating the parking conditions.

The signs must contain the following information:

- ❖ Schedule: Hours and days when the tariff applies
- ❖ Parking duration limit (if applicable)
- ❖ Parking fee



Figure 159. Example of vertical signals.

5.3.5 On-street parking supply summary

16% of the current parking supply is proposed to be removed because of the conversion of the road into a pedestrian street or to improve the walkability. Informal on-street parking has been reduced to 309 parking places which will be included in the parking regulations.

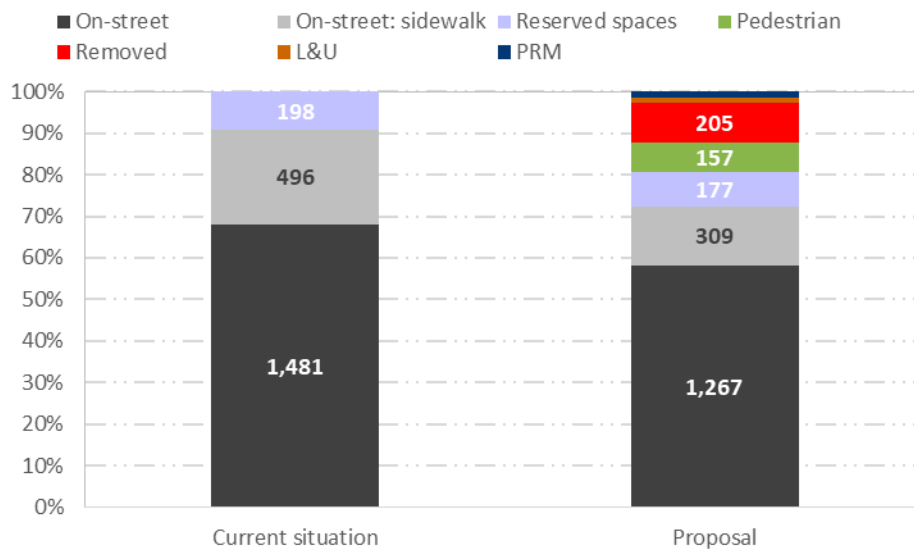


Figure 16. Parking places distribution. Source: Own elaboration

Regarding parking regulation, three different types have been defined for the general users:

- ❖ **Paid short stay regulated spots (blue area):** these parking spots have hourly rates (6 SRD/hour /0.25 USD/hour) and parking duration limit (3 hours), to increase parking rotation. They are located in the busy commercially areas and zones where leisure activities are concentrated.
- ❖ **Short stay regulated spots with resident’s special permit:** it is similar to the previous type, but includes the possibility of obtaining a special permit for residents of the area, which allow long stay stays for a pre-fixed fee.

Non-residents can also park in these parking spots, but with a higher fee than in the blue areas (9 SRD/hour / 0.35 USD/hour), to favor the residents parking demand and discourage the visitors to park in this area.

- ❖ **Long stay regulated spots (orange area):** these parking spots will have daily rates (15 SRD/day / 0.63 USD/day); they are primarily intended for long stay users. They are located in the office areas where most of parking demand are workers.



Figure 17. Parking regulation proposal. Source: Own elaboration

There a total of 1,813 on-street parking places, 1,576 parking places will be for the general users (733 blue, 215 green and 628 orange zones), 177 will be reserved for private use, 35 parking places will be reserved for PRM and 25 parking places for loading/unloading activities.

Proposal parking spaces

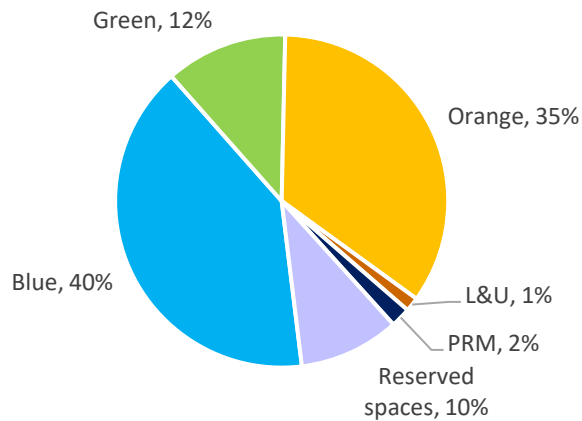


Figure 18. Parking places distribution proposal. Source: Own elaboration

6 Traffic management proposal

6.1 Pedestrian areas

The guidelines and proposals from the SUMP have to be included in the *Parking Management Policy and Strategy for the Paramaribo Inner City*. One of the SUMP proposals to improve the walkability of Paramaribo inner city is the transformation of some streets into no-car streets: a series of pedestrian streets that work as a public space and connect the commercial and heritage areas, where the only allowed traffic is to access private terrains.

For the parking supply, it has to be considered the number of parking places that will be removed because of the implementation of the pedestrian areas.



Figure 20. Proposed type of streets in the SUMP for the inner city. Source: IDOM, IDB; 2018

6.2 Park & ride

In order to reduce the number of vehicles travelling to the center of Paramaribo, a network of park and ride facilities is to be set up on the outskirts of the city. Each of the car parks will be connected to the city center by a shuttle bus with a 10-minute interval during peak hours.

The parking fee will be 5 SRD/day, which in addition to the right to park, it will include the ticket to travel to and from the city center by shuttle bus.

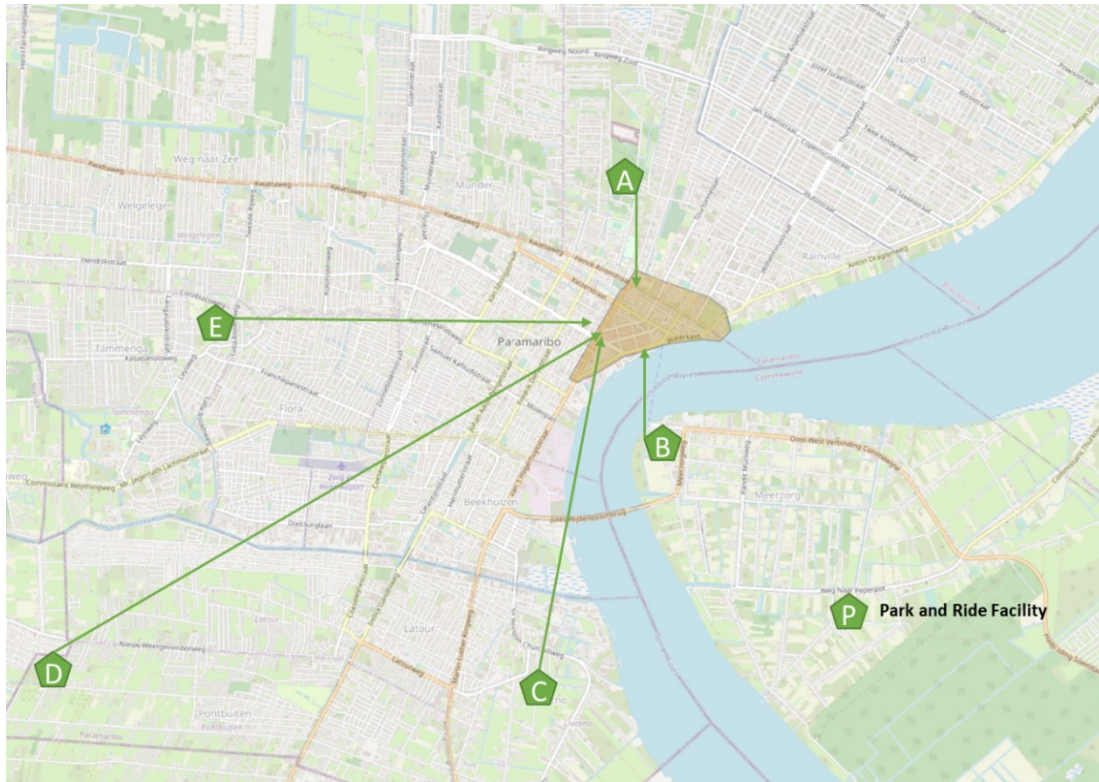


Figure 19. Park & ride locations. Source: Own elaboration

Park & ride locations have been chosen strategically, they cover the main transport directions. They are located in:

- a) Kamperveen Stadion
- b) Meerzorg – Ferry Station
- c) Livorno
- d) Magentakanaalweg
- e) Tamenga /Cocobiacoweg

6.3 Implementation of the Public Transport Improvement Plan for the city of Paramaribo (PTIP)

The IDB and the Suriname’s Ministry of Transport are supervising the drafting of the Public Transport Improvement Plan for the city of Paramaribo (PTIP). The purpose of the plan is to propose a set of strategies, tools, and public policies to address the problems of the managements and organization of PLO bus routes (those covering Paramaribo and Wanica) to achieve a reliable, equitable, sustainable and safe bus transportation system.

One of the main challenges identified of the current public transport system is the absence of bus stops, the system works with terminals, which serve as parking for buses at their start/end of the trip. The shortage of space on these terminals creates a chaotic situation, contributing to traffic congestion, especially at off-peak hours when there is a larger number of buses waiting.

The PTIP proposes the implementation of bus stops along the different bus routes, to reduce traffic congestion caused by buses stopping wherever, this action will affect the parking strategy:

- ❖ Existing parking spaces will be converted into bus stops.

- ❖ Improvements to the public transport system will lead to a reduction in the use of private vehicles to travel into the center, thus reducing the demand for parking.
- ❖ The PTIP proposes to convert the terminals into bus depots, but some could be reserved to create more off-street parking spaces to compensate for the reduction in parking spaces due to the implementation of the bus stops.

6.4 Implementation of the Sustainable Urban Mobility Plan for Paramaribo (PTIP)

As part of the Paramaribo Urban Rehabilitation Program (PURP), the SUMP aims at completing the following objectives:

- ❖ Revitalize the Historic Center;
- ❖ Incentivize recreational use and tourism;
- ❖ Enhance accessibility for all;
- ❖ Develop commercial activity and mixed uses;
- ❖ Catalyse the projects of the PURP.

To achieve these goals, the plan proposes different projects, some of them work in conjunction with the parking strategy, with the purpose of reducing the private vehicle mobility and organizing the parking and freight.

6.4.1 New speed limits

The SUMP proposes to limit the speed of the motorized vehicles since the study area is an urban space with high pedestrian flows and multiple interaction points.

A distinction is made between two types of roads:

- ❖ Passing roads: it is suggested to limit the **vehicular speed up to 40 km/h** in the main passing roads of the study area together with traffic light intersections under Green Waves. These streets present the higher traffic volumes of the study area, an important part of the traffic does not have as destination the city center.
- ❖ Local roads: for the rest of the road network it is suggested to implement limited speed zones up to **20 km/h and 30 km/h**.

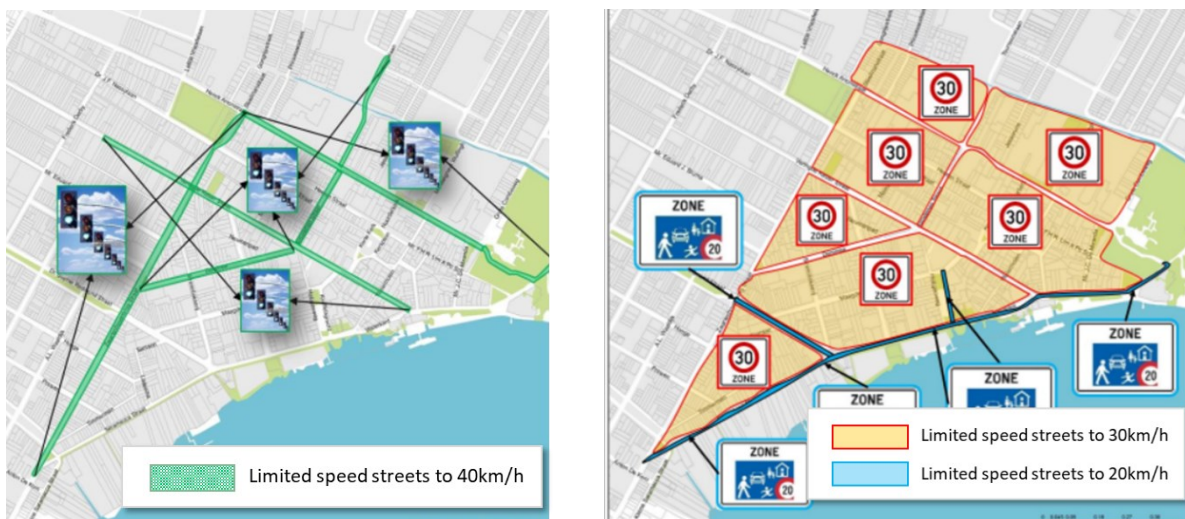


Figure 20. SUMP speeds limit proposal. Source: IDOM, 2018

6.4.2 An inner center with efficient and controlled freight management

Different aspects contribute to the freight-control issues and general congestion of the city center:

- ❖ Non-existent delivery periods
- ❖ Absence of restriction on vehicle dimensions
- ❖ Need for downloading areas

The parking management policy suggests to reserve 25 places for loading & unloading activities along the study area.

In addition, it is considered convenient to apply the dimension and weight restriction and circulation schedules proposed in the SUMP.

6.4.2.1 Dimension and weight regulation

The SUMP proposal limits access to the economic area of the Historic Center to certain vehicle typology:

- ❖ Maximum three axles inside the Historic Center.
- ❖ Maximum weight of seven tons.
- ❖ Dimensions up to 7 m long x 2 m wide x 2.75 m tall.

The recommendation is to just allow low-capacity vehicles (3 axles) inside the Historic Center and limiting heavier vehicles (5 axles maximum) to the perimeter as a safety measure to prevent impeding circulation and damage pavement.

The units that can access the center are trucks of 3½ tons (without a trailer) that don't exceed the guidelines:

Axles	Wheel
2	6
3	8-10

The typology of units that can transit on the perimeter of the center are:

Axles	Wheel
3	10
4	14
5	18

The bigger vehicles will be just allow to circulate through the passing roads:



Figure 21. Circulation network for vehicles with three to five axles. Source: IDOM. 2018

6.4.2.2 Regulation of circulation schedules

The objective is to reduce the loading/unloading of merchandise during peak periods and to concentrate loading activity during off-peak times, outside the hours of major vehicle flow.

Nowadays, the times with private transit demand are between 06:00 and 9:00 hrs. and from 15:00 to 17:00 hrs., for a typical workday. The first recommendations for freight management are:

- ❖ Give a survey to freight operators and shop managers that defines the needs of the operation.
- ❖ Restrict transit of every delivery vehicle during the morning peak period (the busiest time of the day), between 6:00 am and 9:00 am.
- ❖ Before and after peak period, freight transport can transit inside the marked street network according to the weights and dimension regulation.

The mobility policies from the SUMP complement the Parking Management Policy and Strategy for the Paramaribo Inner City. Together they can make the city center more pleasant for all modes of transport.

7 Implementation of the parking policy

7.1 Summary of the parking policy

Three different parking typology have been defined to adapt to the user profiles, the main aspects for each are:

Table 2. Parking policy uses. Source: own elaboration

	Type of parking spot	Days of payment	Payment timetable	Time restriction	Parking fee
On street parking	Blue Zone	Monday to Saturday	Monday-Friday: 07:00-16:00 Saturday; 09:00-14:00	3 hours	6 SRD/hour (0.25 USD/hour)
	Green Zone	Monday to Saturday	Monday-Friday: 07:00-16:00	Visitors: 3 hours	Visitors: 9 SRD/hour (0.35 USD/hour)
			Saturday; 09:00-14:00	Residents: permit must be renewed every year	Residents: 1,200 SRD/year (50 USD/year)
	Orange Zone	Monday to Friday	Monday-Friday: 07:00-16:00	No restrictions	15 SRD/day (0.63 USD/day)
	Distribution of goods	Monday to Saturday	Monday-Friday: 07:00-16:00 Saturday; 09:00-14:00	30 min.	Free of charge
	Specific uses	Monday to Sunday	00:00-23:59	No restrictions	Free of charge
Reduced mobility	Monday to Sunday	00:00-23:59	No restrictions	Free of charge	
Off-street parking	Off-street parking lots	Monday to Sunday	06:00-22:00	1 day	6 SRD/hour (0.25 USD/hour)
					15 SRD/day (0.63 USD/day)

7.2 Implementation phases

In order to facilitate the implementation of the parking policy and to ensure that the change is not drastic, it is proposed to implement the parking regulation policy in phases.

Table 3. Implementation year. Source: Own elaboration

Block 1	Year 3
Block 2	Year 2
Block 3	Year 2
Block 4	Year 3
Block 5	Year 1
Block 6	Year 1

7.3 Governance plan

7.3.1 Introduction

This plan must include the recruitment of staff to perform the control and enforcement of the on-street parking paying system, the maintenance and operation of the facility (in the case of off-street parking) y.

The regulated parking system will need a staff team for the management, it will be composed by maintenance technicians, inspectors, cash collectors, administrators, and service manager.

The work operation is organized as follows:

- II. Maintenance technicians carry out preventive and corrective maintenance of parking meters and collect
- III. The administrator answers complaints and emails with the help of the person in charge
- IV. The person in charge coordinates the inspectors, work shifts and resolves incidents of software and link city council
- V. The person in charge makes reports of liquidations by the city council

Parking fees and fines will bring in a significant amount of money. Revenue management policies will need to be established depending on the operation mode. Excess funds should be set aside for public investment after paying for the system's operational costs and maybe making a profit. Such profits might be used to fund other mobility or public space projects, creating a "cross-subsidy" policy. It can be beneficial to notify the public on how the funds are being redistributed and spent. This would aid in communicating and justifying the charged parking policy, which may first be met with hostility. The benefits allocation policy should be included in the parking management policy as a whole.

7.3.2 Present parking permit legislation

New parking infrastructure

The Ministry of Public Works (MPW) is responsible for all publicly owned parking infrastructure in terms of installation, operation, and maintenance. Whenever a building is to be constructed or rebuild, the owner needs to apply for a building permit at the MPW. Parking supply is one of the aspects that is considered when assessing building permits by the MPW. Applicants are encouraged by the MPW to supply parking spaces on their property as much as possible. The parking demand is expected to be considered by the applicant (in consultation with the architect), however in most cases the demand is inadequately determined leading to illegal usage of the public street shoulders/ sidewalks.

If residents and private investors want to build parking facilities on public property (e.g., the street shoulder), they must apply for it at the MPW. If the parking space is to be used for residential purposes, there is no fee to be paid. However, if the space is to be used for commercial purposes, a fee of SRD50/m² is to be paid.

Parking permit application procedure

Residents and private investors can apply for a parking permit, such that they can reserve one or more publicly owned on-street parking spaces for private use. There is only one type of parking permit for all users. There is no differentiation in terms of user e.g., residents, shop owners, loading/unloading, disabled people, taxis, buses, etc.

Applying for parking permits is done at the MPW. The MPW asks for advice from the traffic police, and if the parking space lies along the network governed by the Road Authority (WA), the WA is consulted as well. Upon approval, the applicant must pay a charge of SRD 2,500 per parking space. The applicant receives a permit number (which is valid for one year) together with implementation- and placement requirements for the

permit-sign. The applicants must manufacture/ purchase the sign themselves. The permit must be renewed annually for the same fee of SRD 2,500/space.

Parking permit application assessment

There are no assessment criteria nor -guidelines for parking permit applications. Guidelines are currently being developed by the 'Traffic and Mobility' Sub-Directorate of the MPW. Standard profiles and functional requirements are to be developed based on road categories. Also, local guidelines for determining the expected parking demand for new buildings need to be developed. There are however some rules being used, which are:

- I. Only one (1) parking permit is given per building/ authority.
- II. Parking is encouraged on site as much as possible. This means that the architect, in consultation with the engineer, determines the parking needs on his own site.

Parking permit enforcement

The MPW is responsible for enforcement regarding the validity of parking permits and engages the police for the execution. The MPW is currently training special agents ('Buiten Gewone Agenten') to take over that role of the police.

7.3.3 Present parking legal regulations

Constitution ('Grondwet').

The Constitution does not contain any provisions relating to traffic on public roads and on roads open to traffic. The Constitution does provide that the Government is responsible for public administration.

The Government has the task of ensuring the application and compliance of the laws given by the parliament ('De Nationale Assemblée') and the State decrees ('staatsbesluiten') given by the Government on behalf of the legislator. To this end, Ministers and other institutes such as Directors of Departments and District Commissioners, take decisions through decrees.

Ministries

By the state decree, "Besluit Taakomschrijving Departementen" (S.B. 2010 no. 174, as last amended by S.B. 2016 no. 26), special tasks have been assigned to Ministries for various areas of government care. The Ministers of the respective ministries are responsible for the execution of these tasks.

This responsibility is enshrined in the various laws that relate to the different areas of government care. In addition, each law always determines which Minister will be charged with the implementation of that law.

For the topic, two areas of government concern are important:

- I. Laws and regulations, for which the Minister in charge of justice and police is responsible, and;
- II. Public works, for which the Minister in charge of public works is responsible.

Laws

In order to carry out the special tasks, the Ministers have been assigned authority, which are always given in a (a) law, or in a (b) state decree implementing a law.

For the subject of this project, the following laws are important:

- I. The Rijwet 1971 (G.B. 1917 no. 65, last amended by S.B. 2022 no.33)
- II. The Bouwwet 1956 (G.B. 1956 no. 30, last amended by S.B. 2002 no.72)

Rijwet (Driving Act)

Article 1 of the Rijwet defines "roads" as: "all roads open to public traffic". This implies that the Rijwet applies both to (i) parking spaces on the verge along public roads, and to (ii) private parking facilities that connect directly to the public road and are open to public traffic.

The Rijwet itself does not contain any specific provisions regarding to parking or parking spaces, but Article 17 stipulates that by state decree "further rules can be made" "concerning traffic on the roads".

Rijbesluit (Driving decree)

In order to implement Article 17 of the Rijwet, a State Decree of (G.B. 1957 no. 103, as last amended by S.B. 2020 no.9) the "Rijbesluit 1957" given. Article 1 of that State decree defines 'roads', which reads as follows:

"All lanes, cycle paths, footpaths, squares and bridges open to public traffic; the paths, verges or sides forming part of the road shall form part of the road.!"

This is a special feature of the concept of "roads" as defined in the Rijwet, which explicitly shows that the "verges or sides" of roads open to public traffic also fall within the **scope of the Rijbesluit 1957**.

Articles 4 and 6 of the Rijbesluit 1957 demand that the Minister of Justice and Police may designate parking spaces along public roads and may establish specific traffic signs for this purpose.

In practice, these provisions are implemented. This is often done at the request of private companies or professionals, who need parking spaces for their business premises. Parking spaces are also designated on the verge of public roads for the benefit of government offices.

Bouwwet (Construction law)

Article 1(3) of the Bouwwet defines "construction" as follows:

'Construction means the installation, in whole or in part, of erecting, renewing, altering or extending buildings or other structures in the broadest sense of the word, including hydraulic engineering works.'

Under this definition, the construction of parking spaces along public roads is considered "constructing", which requires a permit from the Director of the Ministry of Public Works.

Article 1(1)(c) of the Bouwwet also provides that further rules regarding the requirements for construction are to be given by state decree.

Bouwbesluit (Construction Decree)

In order to implement the Bouwwet 1956, the "Bouwbesluit No. 1" was given by state decree (G.B. 1956 no. 108, last amended by S.B. 2002 no. 93), in this Bouwbesluit No. 1, Article 1 paragraph 6 gives a definition for "public road" that reads as follows:

"all roads, streets, quays, generally open land that are accessible to everyone, either under public law or by tolerating by the right holder".

Based on this definition of public road, there is a **permit requirement** for:

- I. The construction of public road parking spaces, and;
- II. The construction of parking spaces on private land that are directly accessible from the public road.

On these private sites, the so-called private parking facilities are operated.

The Director of the Ministry of Public Works therefore grants building permits both for parking spaces along the public road and for private parking facilities that are open to public traffic.

Legal infrastructure

It follows from the foregoing that there is a legal infrastructure under which:

- I. The Minister of Justice and Police is authorized to designate parking spaces along the public road and to grant permission to private individuals to use them as such;
- II. The Director of the Ministry of Public Works is authorized to grant building permits for the construction and arrangement of parking spaces along the public road and for private parking facilities that are directly accessible from the public road.

The Minister of Justice and Police is advised by the Traffic Department of the Suriname Police Force when making the designation and granting the permission.

In granting the building permit, the Minister of Public Works is advised by the Building and Housing Supervision Department of the Ministry of Public Works and by the Road Authority, as long as it concerns roads that fall under their management.

The building permit for these parking spaces must be renewed annually, whereby SRD 2,500 will be charged.

However, the legislation does not provide for the commercial exploitation of parking spaces along public roads for the benefit of individuals, businesses, and specific categories of users.

Illegal parking

In practice, car drivers frequently park on the verges along public roads, which are not designated as parking spaces. Especially in the city center of Paramaribo, these places are “managed” by so-called “illegal parking attendants”, who expect compensation from the car drivers.

Not infrequently, this so-called ‘illegal parking’ means that vehicles are parked in such a way as to endanger the flow- and the safety of traffic. It is also often the cause of disputes between car drivers and illegal parking attendants on the one hand and between illegal parking attendants themselves on the other.

Based on the Rijbesluit 1957, only the police officers are authorized to act against this illegal parking, but in practice, this is not done for several reasons and there is a daily parking chaos, especially in the city center.

The diagnosis of this study has shown that there is an urgent need to set out and implement a parking policy for the city center of Paramaribo. It is plausible that this need also applies to the commercial and service centers elsewhere in Paramaribo and in the districts. This parking policy must not only (i) regulate parking within the designated zones, but also effectively (ii) enforce and (iii) commercialize.

7.3.4 Operational organization proposal

It is desirable that **a single body** that is also competent to enforce compliance with it, hereinafter referred to as the “Parking Authority”, implements the parking policy. This Parking Authority will not take over the designation of parking spaces by the Minister of Justice and Police or the issuing of building permits by the Director of Public Works, but must be given an advisory role. The Parking Authority will also not be responsible for regulating traffic flows and spatial layout within the zones to be designated.

The Parking Authority's main task will be to **enforce the parking policy within the designated zones and to commercially exploit those parking spaces**. This task also includes the administrative force of action against illegal parking in the zones, by imposing fines and towing away the incorrectly parked vehicles.

From the conversations with the stakeholders, two options have emerged for the form in which the desired Parking Authority can be casted and operation of the system can be carried out. Those options are:

- A. Partnership between government and private companies. A public tender would be organized for private companies willing to implement and manage the system. The administration will receive a canon which can be invested in mobility projects or in maintenance of the public space.
- B. A public parking authority established by law. Creation of a public body responsible for the implementation and operation of the new system. All profits can be invested in the public space or mobility projects. The parking authority will have the next functions:

In both cases, the administration would be in charge of defining the parking fees, plan the parking network and manage the interaction of parking infrastructure with other planning instruments (urban planning, public transport, traffic calming strategy).

7.3.4.1 Private company

Suriname has some experience in outsourcing public tasks to private legal entities, in particular public limited companies ('naamloze vennootschappen'), by granting a concession based on the Concessiewet (G.B. 1947 no. 181)

Based on this law, the Surinamese Water Company (N.V. SWM) and Energy Company Suriname (N.V. EBS) have obtained a concession respectively for the production and distribution of drinking water and electricity for all households and companies in Suriname. These utilities are companies that provide products or services that directly affect, among other things, public health and safety.

Therefore, in both cases, the State of Suriname is the sole shareholder of that private company, in which there is a guarantee that only the public interest is served.

Suriname also has some experience in placing public tasks with a foundation it has set up. For example, the re-inspection of vehicles by private companies - under the responsibility of Surinam Motor Vehicle Re-Inspection Foundation ('Stichting Herkeuringen Motorrijen voertuigen Suriname')- established by the government - has been made possible, but the implementation of this is not an undivided success. The re-inspection of vehicles is also a purely technical matter and the Foundation is not charged with enforcing the inspection obligation on the road. That task is and remains in the hands of the general police.

Suriname has no experience with outsourcing public tasks, on the basis of an auction, to a public limited company ('Naamloze vennootschap') whose shares are held by private persons. There is also no specific legal framework for this and there is no legislation that can be used for this

7.3.4.2 Public Authority

Suriname does have extensive experience with legal entities established by law, also known as authorities, to whom public tasks have been delegated. There are the Road Authority ('Wegenautoriteit'), the Maritime Authority Suriname (MAS), the Civil Aviation Safety Authority Suriname (CASAS) and the Telecommunications Authority Suriname (TAS).

These authorities that are established by law, the management of which are appointed by the government, operate independently. They formulate the policy and give rules in that context, ensure the implementation of those rules and are responsible for enforcement. The laws by which these authorities are established also provide for their own income, but also for supervision of their functioning. It is therefore advisable to choose this form for the Parking Authority.

Road authority as Parking authority

The Parking Authority will have to execute its tasks and authorities based on a law. Normally, this would require its own law to be approved by the parliament. However, the Road Authority already has as task "managing primary roads", and these are precisely the places where parking spaces must be built and managed in this context. It therefore seems to us that the Parking Authority can be incorporated into the Road Authority.

This can be achieved relatively easily by supplementing the Wet Wegenautoriteit (S.B. 1995 no. 68), in such a way that the task of the Road Authority is thereby extended. The Wet Wegenautoriteit already contains the basis for collecting fees, applying administrative coercion, and detecting violations.

7.3.5 Recommendations

Based on the above, we come to the following recommendations:

1. Incorporating the Parking Authority into the Road Authority, which will be in charge of planning the parking network and defining the fees (following the criteria defined at the Parking policy for Paramaribo inner center.)
2. Amending Article 6 paragraph 1 of the Rijbesluit, in such a way that the designation of parking spaces along the public road must be published in the 'Advertentieblad van de Republiek'.
3. The addition of a provision to the Rijbesluit prohibiting the use of parking spaces on the verge in designated areas without a permit and, to this end, the placement of obstacles on the verges.
4. Adding to Article 1 paragraph 3 of the Bouwwet that "constructing" should also interpreted the construction of parking spaces along public roads.
5. The introduction of an economic permit requirement for the operation of private parking facilities that are directly accessible to public traffic from the public road.
6. Supplementing the Wet Wegenautoriteit in such a way that part of the parking fees to be collected are spent on the public-friendly design of the public spaces within the zones.
7. It is suggested that the operation, maintenance and infrastructure investment are carried out through a partnership between government and private companies. A private company obtains the concession to operate the parking system through a public tender in exchange for a canon paid to the administration.
8. Parking fees: they must be reviewed once the parking policy comes into effect.
9. Parking permits for private use: nowadays residents and private investors can apply for a parking permit, to reserve one or more publicly owned on-street parking spaces for private use. It is proposed to reduce this practice as much as possible in Paramaribo inner city, as the new parking policy will ensure a greater availability of parking spaces; shops will no longer need reserved parking spaces for customers' use.
10. Residential permit: it is suggested that this permit is renewed every 3 years, fee has to be paid annually. To obtain the permit, the applicant must provide the following information: driving license, residence permit, ID card.
11. Identification tag for loading & unloading parking spaces: to obtain it, the owner of the vehicle must provide the technical specifications of the vehicle together with proof that the vehicle is used for the delivery of goods.
12. Reduced mobility parking permits for visitors; applicant must provide the following information: driving license (person who will usually drive the car), ID card and certificate of reduced mobility.
13. Reduced mobility parking permits for residents; applicant must provide the following information: driving license (person who will usually drive the car), ID card, residence permit and certificate of reduced mobility.

8 Proposal analysis

8.1 Cost analysis

To establish the financial analysis and business plan it is necessary to assess costs associated to the parking proposal implementation. These will comprise:

- I. Capital Expenditure (CAPEX): This represents the investment cost for on-street and off-street solutions.
- II. Operational Expenditure (OPEX): This represents the necessary expenses to operate and maintain the off-street and on-street parking systems.

8.1.1 Proposal scaling

For the costs calculation is necessary to estimate the number of necessary signalization elements and the staff associated.

8.1.1.1 Parking upgrade

First thing to do for the implementation of the parking policy is a rehabilitation of those parking spaces which are currently in poor condition. The implementation of the parking policy has to ensure a good condition of the parking places.

From the field studies, the current state of the parking spaces is known. A total of 407 parking spaces have been identified for rehabilitation.

8.1.1.2 Number of parking meters

The required number of parking meters has been dimensioned so a parking user does not have to walk more than 75m. The next map shows the proposed location for the parking meters to be installed in Paramaribo inner city.

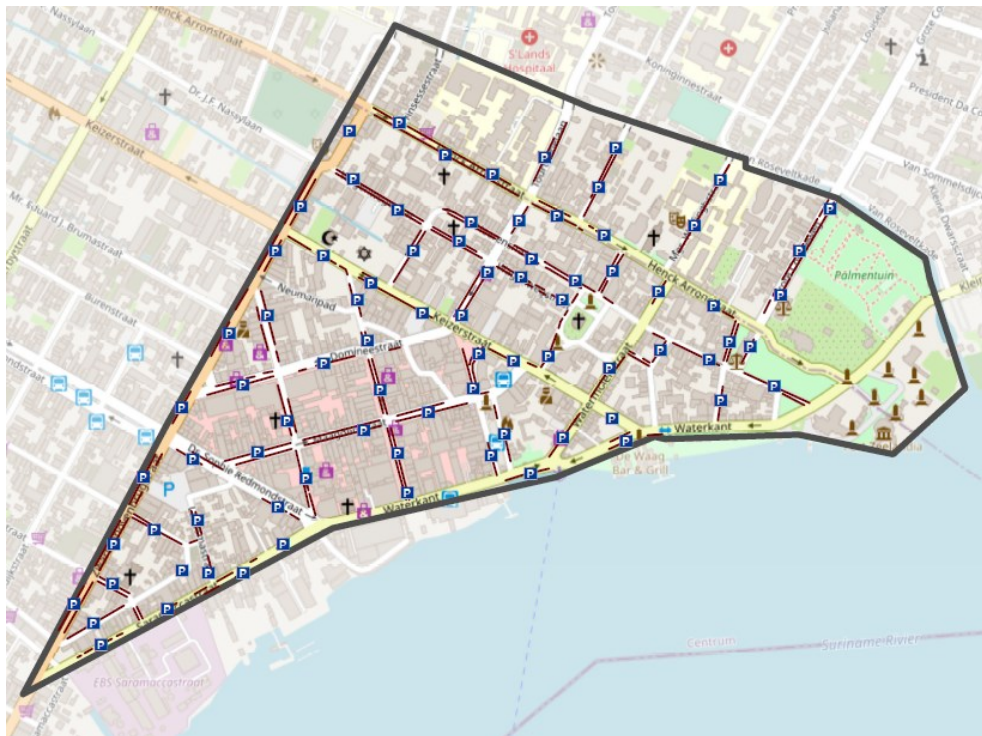


Figure 22. Proposed location for the parking meters. Source: Own elaboration

The proposal has been developed through specific algorithms of spatial geometry and previous experience in similar projects, the distance between two devices in no case exceeds 150 meters, giving service to the entire area where the new regulation will be introduced.

It is proposed to install 81 parking meters, approximately one for every 19.5 parking spaces. According to other studios, number of parking spaces per parking meter is usually around 20.

Table 4. Number of necessary parking meters per block. Source: Own elaboration

Block	Parking meters
Block 1	15
Block 2	11
Block 3	17
Block 4	10
Block 5	17
Block 6	11
Total	81

In addition, it is possible that in the future the number of parking meters required will be considerably reduced, as the implementation of mobile payment applications will gradually replace the physical payment.

8.1.1.3 Required surveillance and cash collector personnel

Based on previous experience in similar projects, it has been observed that the necessary surveillance personnel for orange areas is lower than for green and blue areas, since users can be parked all day. In blue and green areas, the parking duration limit is set at 3 hours, which implies a higher vehicle rotation.

The calculation of the necessary personnel for each block has been carried out according to the following criteria:

- III. Control is carried out at an average speed of 1 min/parking spot (includes checking the badge or ticket and sanctioning offenders).
- IV. Then, one person can check approximately 60 parking spot each hour.
- V. Since in the orange areas parking rotation will be lower, it is proposed to check each parking space every 2 hours.
- VI. For the blue and green areas, it is proposed to check each parking space once per hour.

Then, it is estimated that one inspector is needed every 60 parking places in green and blue areas, and one every 120 parking places in orange areas.

Table 5. Surveillance staff per block. Source: own elaboration

Block	Parking places			Total Inspectors
	Blue	Green	Orange	
Block 1	20	215	0	5
Block 2	284	0	0	6
Block 3	339	0	0	7
Block 4	14	0	169	2
Block 5	12	0	240	2
Block 6	64	0	219	4
Total	733	215	628	26

Regarding the maintenance staff, it has been estimated one employee for every 150 parking spaces, then the maintenance team will be composed of 12 persons.

As for the cash collection, it is proposed to employ one cash collector for every 10 parking meters; taking into account the number of parking places, **9** cash collectors will be incorporated. Moreover, it has also been considered that the collection of cash will require the use of a vehicle.

Previous numbers already considered an extra **20%** of staff that will be needed to cover sick leave, holidays and on Saturdays when the parking policy is in operation.

8.1.1.4 Parking signage

Parking signalization is composed of three elements:

- VII. Horizontal signage (painting): each parking space will be marked depending the parking regulation (blue, green or orange) or if it is reserved for some user profile (such as PRM and loading/unloading). For the calculations, the next parameters have been considered:
 - 8 meters of paint for each visitor parking space
 - 10 meters of paint for each loading/unloading parking space
 - 30 meters of paint for each PRM parking space.
- VIII. Vertical signals: they will include the information regarding the parking regulation. For the proposal scaling it has been considered 1 vertical sign every 20 visitor’s parking space and 1 vertical sign for each reserved parking space.
- IX. Bollards: to prevent cars from parking on sidewalks. For the proposal scaling it has been considered 1 bollard every 8 meters on sidewalks where parking has been removed.

Table 6. Parking signage scaling per block. Source: own elaboration

Block	Visitors places	Loading+PRM spaces	Vertical signals (ut.)	Bollards (ut.)	Horizontal signage (m.)
1	235	7	19	19	2,010
2	284	13	27	19	2,522
3	339	16	33	11	3,092
4	183	8	17	71	1,644
5	252	8	21	38	2,196
6	283	8	22	0	2,444
Total	1,576	60	139	159	13,908

8.1.2 Unitary costs

Investment costs (CAPEX)

The implementation unitary costs considered for the feasibility analysis are next (the cost includes the purchase of the material and the implementation):

Table 7. Unitary costs, CAPEX

Concept	Cost (USD)	Cost (SRD)
Parking meters	7,200 USD/ut.	172,800 SRD/ut.
Horizontal signage	2.5 USD/m	60 SRD/m
Vertical signals	243 USD/ut.	5,832 SRD/ut.
Bollards	234 USD/ut.	5,616 SRD/ut.
Information campaign	4,000 USD/ut.	96,000 SRD/ut.
Cash collection vehicle	25,000 USD/ut.	600,000 SRD/ut.
Parking upgrade	85 USD/m ²	2,040 SRD/m ²

Operational costs (OPEX)

Regarding the maintenance and operational costs, the unitary parameters considered are the next:

Table 8. Unitary costs, OPEX.

Concept	Value	Unit	Observation
Parking meters	1,080	USD/ut-year	15% of implementation costs per unit
Horizontal signage	0.625	USD/m-year	25% of implementation costs per unit
Vertical signals	24	USD/ut-year	10% of implementation costs per unit
Bollards	23	USD/ut-year	10% of implementation costs per unit
Inspectors	341	USD/person-month	5,000 SRD salary + 50% taxes and expenses
Cash collection staff	315	USD/person-month	4,600 SRD salary + 50% taxes and expenses
Cash collection vehicle	2,500	USD/ut-year	10% of implementation costs per unit

The salaries for the maintenance staff are already included in the maintenance costs material.

Other costs

In addition to operating costs, structural and company costs have to be added:

Table 9. Unitary costs, structural.

Concept	Value	Unit	Observation
Structural costs	10%	%	% over operational costs
General expenses	12%	%	% over operational costs
Taxes	30%		% over benefits

8.1.3 Implementation costs

CAPEX has been assessed by taking into account the implementation proposal. This should allow the consulting firm to determine the quantities of the different items and fixed facilities to be implemented, such as the number of parking meters, linear meters of parking meters to adequate, the signage, etc.

Table 4. CAPEX costs per block. Source: own elaboration

Characterization			Costs (USD)					Total CAPEX (USD)
Block	Visitor parking spots	Loading + PRM spaces	Parking meters	Vertical Signals	Bollards	Horizontal signage	Parking upgrade	
1	235	7	108,000	4,617	4,534	5,770	84,150	207,071
2	284	13	79,200	6,561	4,506	7,323	11,050	108,640
3	339	16	122,400	8,019	2,628	7,925	87,550	228,522
4	183	8	72,000	4,131	16,542	4,195	107,950	204,818
5	252	8	122,400	5,103	8,885	5,943	36,550	178,881
6	283	8	79,200	5,346	0	6,763	18,700	110,009
General costs								49,000
Total	1,576	60	583,200	33,777	37,095	37,918	345,950	1.09 M USD

Total costs for the necessary infrastructure for the implementation of the parking policy in Paramaribo inner city center is **MUSD 1.09**. Parking meters represent 54% of the investment costs and the parking upgrade 32%.

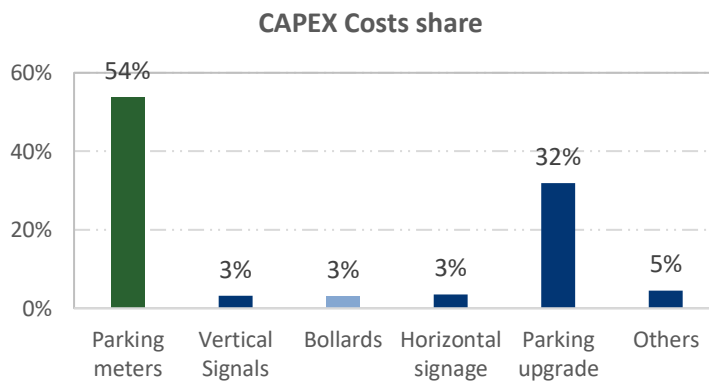


Figure 23. Implementation costs share

8.1.4 Maintenance and operational costs

In a base year, when the entire study area has regulated parking, the operating and maintenance costs will be as follows:

Table 5. Distribution of the OPEX per blocks. Source: Own elaboration

Costs (USD/year)	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Structural costs	General expenses + vehicle	Total
Base year	45,750	46,920	62,200	27,510	38,620	36,400	26,000	33,700	USD/year 317,000

The OPEX costs per year are **317,000 USD/year**. The average cost per parking place is **175 USD/year**.

The staff represents 48 % of the operational costs. The following graph shows how the costs are distributed according to each element.

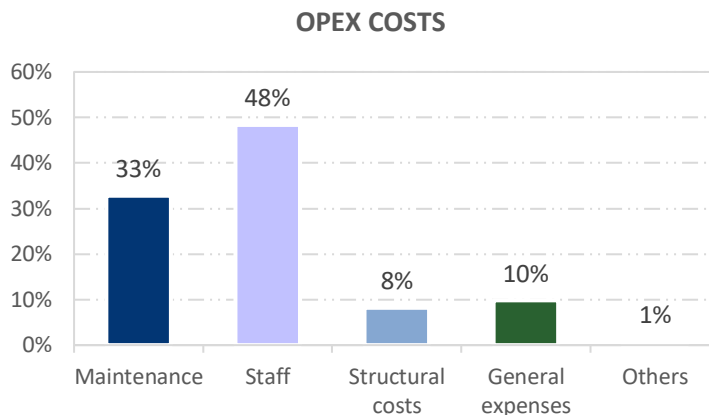


Figure 24. Operational costs share. Source: own elaboration

8.2 Income evaluation

8.2.1 Parking demand prevision

8.2.1.1 Demand previsions for base year

A significant reduction in demand has been considered as parking is currently free of charge and will be a major change in the city.

Table 6. Demand variation for base year. Source: Own elaboration

Scenarios	OCCUPATION		ROTATION
	BLUE	GREEN	ORANGE
Working day	-15 %	-20 %	- 20 %
Weekend	- 20 %	- 25 %	No operative

For all the scenarios, the same base year has been considered, next the variation from the current situation of the occupation and parking rotation.

8.2.1.2 Scenarios:

According to PERP method, three scenarios have been defined:

- X. Optimistic (O): demand increases more than expected.
- XI. Most likely (M): the most likely demand scenario.
- XII. Pessimistic (P): worse growth expectations.

Next the growth parameters used for each scenario:

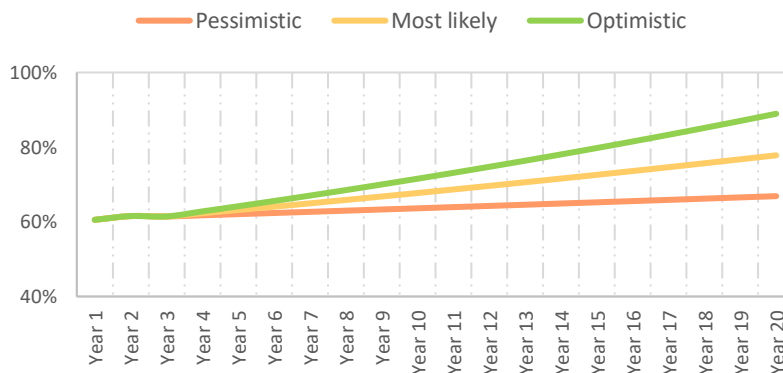
Table 7. Growth parameters. Source: Own elaboration

Scenarios	OCCUPATION		ROTATION
	BLUE	GREEN	ORANGE
Pessimistic	0.5%	0.2%	0.1%
Most likely	1.4%	0.9%	0.7%
Optimistic	2.2%	1.5%	1.2%

Since orange zone have a daily tariff, the revenue is calculated from the rotation of vehicles, not from the occupation, which is applied to the blue and green zones which have hourly tariffs.

The growth parameters are conservative, to be on the safe side of financial analysis.

Occupation evolution - Blue area



Rotation evolution - Orange area

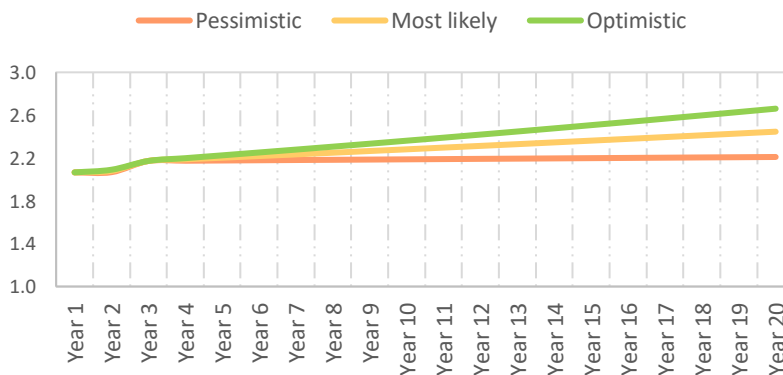


Figure 25. Occupation and rotation forecast. Source: Own elaboration

8.2.1.3 Demand and income forecast results

Based on the parameters of the base scenario and the evolution of demand, the revenue forecast for 20 years has been constructed. Next graphic shows which percentage of the revenue each parking typology represents:

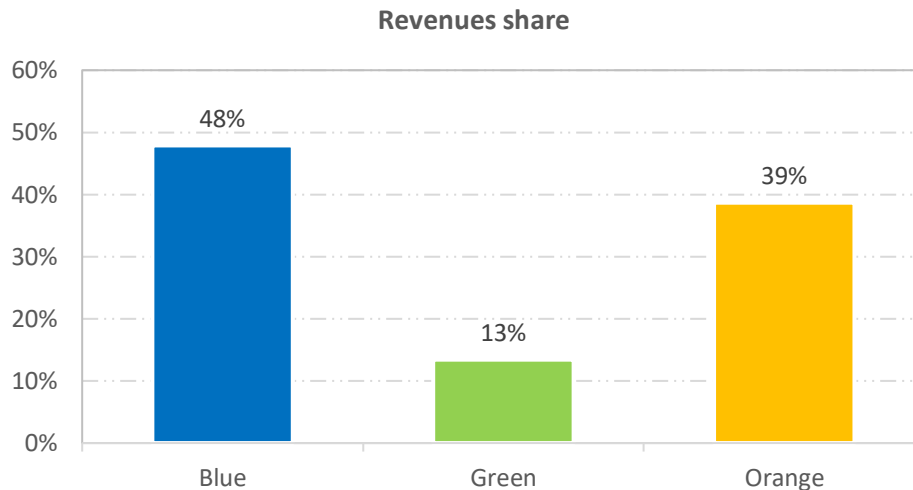


Figure 26. Average revenue share in a working day. Source: Own elaboration

The average revenue per parking place for base scenario is **36.3 SRD/parking place-day (2.4 USD/day)**; which will represent an average occupancy of 65% in case all parking places are blue zone.

Next table show the expected occupation and rotation for a typical working day per year; and the expected revenue for the first 20 years of implementation (the implementation phases have been considered):

Table 8. Expected demand and revenue in a working day per year. Source: Own elaboration

TYPOLOGY	AVERAGE OCCUPATION						AVERAGE ROTATION			REVENUE		
	BLUE			GREEN			ORANGE			Pessimistic	Most likely	Optimistic
Scenario	Pessimistic	Most likely	Optimistic	Pessimistic	Most likely	Optimistic	Pessimistic	Most likely	Optimistic	Pessimistic	Most likely	Optimistic
Year 1	0%	0%	0%	0%	0%	0%	0	0	0	\$0	\$0	\$0
Year 2	61%	61%	61%	0%	0%	0%	2.1	2.1	2.1	\$696	\$696	\$696
Year 3	62%	62%	62%	0%	0%	0%	2.1	2.1	2.1	\$1,561	\$1,565	\$1,568
Year 4	61%	61%	61%	48%	48%	48%	2.2	2.2	2.2	\$2,194	\$2,194	\$2,194
Year 5	62%	62%	63%	48%	49%	49%	2.2	2.2	2.2	\$2,200	\$2,217	\$2,231
Year 6	62%	63%	64%	49%	49%	50%	2.2	2.2	2.2	\$2,207	\$2,240	\$2,269
Year 7	62%	64%	66%	49%	50%	51%	2.2	2.2	2.3	\$2,213	\$2,264	\$2,308
Year 8	63%	65%	67%	49%	50%	51%	2.2	2.2	2.3	\$2,220	\$2,288	\$2,348
Year 9	63%	66%	68%	49%	51%	52%	2.2	2.2	2.3	\$2,227	\$2,312	\$2,388
Year 10	63%	67%	70%	49%	51%	53%	2.2	2.3	2.3	\$2,234	\$2,336	\$2,429
Year 11	64%	68%	72%	49%	52%	54%	2.2	2.3	2.4	\$2,240	\$2,361	\$2,471
Year 12	64%	69%	73%	49%	52%	55%	2.2	2.3	2.4	\$2,247	\$2,386	\$2,513
Year 13	64%	70%	75%	49%	52%	55%	2.2	2.3	2.4	\$2,254	\$2,412	\$2,557
Year 14	65%	71%	76%	49%	53%	56%	2.2	2.3	2.4	\$2,261	\$2,437	\$2,601
Year 15	65%	72%	78%	49%	53%	57%	2.2	2.3	2.5	\$2,268	\$2,463	\$2,646
Year 16	65%	73%	80%	50%	54%	58%	2.2	2.4	2.5	\$2,274	\$2,489	\$2,691
Year 17	66%	74%	82%	50%	54%	59%	2.2	2.4	2.5	\$2,281	\$2,516	\$2,738
Year 18	66%	75%	83%	50%	55%	60%	2.2	2.4	2.6	\$2,288	\$2,543	\$2,785
Year 19	66%	76%	85%	50%	55%	60%	2.2	2.4	2.6	\$2,295	\$2,570	\$2,834
Year 20	67%	77%	87%	50%	56%	61%	2.2	2.4	2.6	\$2,302	\$2,597	\$2,883

Average revenue per working day is USD 2,250 for the pessimistic scenario, USD 2,400 for the most likely scenario and USD 2,545 for the optimistic scenario.

8.3 Financial analysis

The first years will require an initial investment (CAPEX) to implement all the necessary components of the parking policy. The operating costs will be covered by the revenue from parking fees.

Next tables show the financial analysis for the 3 studied scenarios.

PESIMISTIC SCENARIO

Year	CAPEX (MUSD)	OPEX (MUSD)	BALANCE (MUSD)	BALANCE AFTER TAXES (MUSD)	INCOME (MUSD)	NPV	IRR
Year 0	-0.32	0.00	-0.32	-0.32	0.00	-0.31	0%
Year 1	-0.35	-0.09	-0.27	-0.27	0.17	-0.55	0%
Year 2	-0.42	-0.23	-0.26	-0.26	0.39	-0.78	0%
Year 3	0.00	-0.32	0.23	0.16	0.54	-0.65	-61%
Year 4	0.00	-0.32	0.23	0.16	0.55	-0.52	-33%
Year 5	0.00	-0.32	0.23	0.16	0.55	-0.40	-17%
Year 6	0.00	-0.32	0.23	0.16	0.55	-0.29	-8%
Year 7	0.00	-0.32	0.23	0.16	0.55	-0.18	-1%
Year 8	0.00	-0.32	0.24	0.16	0.55	-0.07	3%
Year 9	0.00	-0.32	0.24	0.17	0.55	0.03	6%
Year 10	0.00	-0.32	0.24	0.17	0.56	0.13	8%
Year 11	0.00	-0.32	0.24	0.17	0.56	0.22	10%
Year 12	0.00	-0.32	0.24	0.17	0.56	0.31	11%
Year 13	0.00	-0.32	0.24	0.17	0.56	0.40	12%
Year 14	0.00	-0.32	0.25	0.17	0.56	0.48	13%
Year 15	0.00	-0.32	0.25	0.17	0.56	0.56	13%
Year 16	0.00	-0.32	0.25	0.17	0.57	0.64	14%
Year 17	0.00	-0.32	0.25	0.18	0.57	0.71	14%
Year 18	0.00	-0.32	0.25	0.18	0.57	0.78	15%
Year 19	0.00	-0.32	0.25	0.18	0.57	0.85	15%
Year 20	0.00	-0.32	0.26	0.18	0.57	0.91	15%

MOST LIKELY SCENARIO

Year	CAPEX (MUSD)	OPEX (MUSD)	BALANCE (MUSD)	BALANCE AFTER TAXES (MUSD)	INCOME (MUSD)	NPV	IRR
Year 0	-0.32	0.00	-5.69	-5.69	0.00	-0.31	0%
Year 1	-0.35	-0.09	-3.78	-3.78	4.05	-0.55	0%
Year 2	-0.42	-0.23	-1.41	-1.41	9.32	-0.78	0%
Year 3	0.00	-0.32	4.84	3.39	12.96	-0.65	-61%
Year 4	0.00	-0.32	4.98	3.49	13.10	-0.52	-32%
Year 5	0.00	-0.32	5.12	3.58	13.24	-0.39	-16%
Year 6	0.00	-0.32	5.26	3.68	13.38	-0.27	-7%
Year 7	0.00	-0.32	5.40	3.78	13.52	-0.15	-1%

Year	CAPEX (MUSD)	OPEX (MUSD)	BALANCE (MUSD)	BALANCE AFTER TAXES (MUSD)	INCOME (MUSD)	NPV	IRR
Year 8	0.00	-0.32	5.55	3.88	13.66	-0.04	4%
Year 9	0.00	-0.32	5.69	3.98	13.81	0.07	7%
Year 10	0.00	-0.32	5.84	4.09	13.96	0.18	9%
Year 11	0.00	-0.32	5.99	4.19	14.11	0.29	11%
Year 12	0.00	-0.32	6.14	4.30	14.26	0.40	12%
Year 13	0.00	-0.32	6.29	4.40	14.41	0.50	13%
Year 14	0.00	-0.32	6.45	4.51	14.57	0.60	14%
Year 15	0.00	-0.32	6.60	4.62	14.72	0.69	15%
Year 16	0.00	-0.32	6.76	4.73	14.88	0.79	15%
Year 17	0.00	-0.32	6.92	4.85	15.04	0.88	16%
Year 18	0.00	-0.32	7.08	4.96	15.20	0.97	16%
Year 19	0.00	-0.32	7.25	5.07	15.37	1.05	16%
Year 20	0.00	-0.32	7.41	5.19	15.53	1.14	17%

OPTIMISTIC SCENARIO

Year	CAPEX (MUSD)	OPEX (MUSD)	BALANCE (MUSD)	BALANCE AFTER TAXES (MUSD)	INCOME (MUSD)	NPV	IRR
Year 0	-0.32	0.00	-0.32	-0.32	0.00	-0.31	0%
Year 1	-0.35	-0.09	-0.27	-0.27	0.17	-0.55	0%
Year 2	-0.42	-0.23	-0.26	-0.26	0.39	-0.78	0%
Year 3	0.00	-0.32	0.23	0.16	0.54	-0.65	-61%
Year 4	0.00	-0.32	0.24	0.17	0.55	-0.52	-32%
Year 5	0.00	-0.32	0.25	0.17	0.56	-0.39	-16%
Year 6	0.00	-0.32	0.26	0.18	0.57	-0.26	-6%
Year 7	0.00	-0.32	0.27	0.19	0.58	-0.13	0%
Year 8	0.00	-0.32	0.28	0.19	0.59	-0.01	5%
Year 9	0.00	-0.32	0.29	0.20	0.60	0.11	8%
Year 10	0.00	-0.32	0.30	0.21	0.61	0.23	10%
Year 11	0.00	-0.32	0.31	0.21	0.62	0.35	12%
Year 12	0.00	-0.32	0.32	0.22	0.63	0.47	13%
Year 13	0.00	-0.32	0.33	0.23	0.65	0.59	14%
Year 14	0.00	-0.32	0.34	0.24	0.66	0.70	15%
Year 15	0.00	-0.32	0.35	0.25	0.67	0.81	16%
Year 16	0.00	-0.32	0.36	0.25	0.68	0.92	16%
Year 17	0.00	-0.32	0.37	0.26	0.69	1.03	17%
Year 18	0.00	-0.32	0.39	0.27	0.70	1.14	17%
Year 19	0.00	-0.32	0.40	0.28	0.72	1.25	17%
Year 20	0.00	-0.32	0.41	0.29	0.73	1.35	18%

The three scenarios obtained similar results since CAPEX and OPEX costs are the same (they do not depend on the demand); and there is not much variation in revenue forecasts between scenarios.

- I. Pessimistic scenario: the investment has already been profitable in year 8 (IRR>0). In year 20, the expected IRR is 15%.
- II. Most likely scenario: the investment has already been profitable in year 7 (IRR>0). In year 20, the expected IRR is 17%.
- III. Optimistic scenario: the investment has already been profitable in year 6 (IRR>0). In year 20, the expected IRR is 18%.

Table 9. Financial analysis summary. Source: own elaboration

Aspect	Pessimistic scenario	Most likely scenario	Optimistic scenario
CAPEX (20 years)	- 1.09 MUSD		
OPEX (20 years)	- 7.12 MUSD		
INCOME (20 years)	10.61 MUSD	11.29 MUSD	11.93 MUSD
BALANCE AFTER TAXES (20 years)	2.19 MUSD	2.66 MUSD	3.11 MUSD
IRR (year 20)	15 %	17 %	18 %

Taking into consideration the low investment cost for the implementation of the parking policy; it is considered an interesting investment as it pays off in a period of less than 10 years. In addition, the profits can be invested in improving public space or public transport.

Canon in case of a concession

In case the implementation of the car park is carried out by means of a concession, a **canon** can be defined which the concessionary company will have to pay to the administration. This canon can be invest in improvements of the public space. Next table shows the financial analysis for the most likely scenario + 15% canon of the income.

MOST LIKELY SCENARIO + 15% CANON (of the income)

Year	CAPEX (MUSD)	OPEX (MUSD)	BALANCE (MUSD)	BALANCE AFTER TAXES (MUSD)	INCOME (MUSD)	CANON (MUSD)	NPV	IRR
Year 0	-0.32	0.00	-0.32	-0.32	0.00	0.00	-0.31	0%
Year 1	-0.35	-0.09	-0.30	-0.30	0.17	-0.03	-0.58	0%
Year 2	-0.42	-0.23	-0.32	-0.32	0.39	-0.06	-0.85	0%
Year 3	0.00	-0.32	0.15	0.10	0.54	-0.08	-0.77	-75%
Year 4	0.00	-0.32	0.15	0.11	0.55	-0.08	-0.68	0%
Year 5	0.00	-0.32	0.16	0.11	0.56	-0.08	-0.60	-30%
Year 6	0.00	-0.32	0.16	0.11	0.56	-0.08	-0.52	-20%
Year 7	0.00	-0.32	0.17	0.12	0.57	-0.09	-0.44	-12%
Year 8	0.00	-0.32	0.17	0.12	0.57	-0.09	-0.37	-7%
Year 9	0.00	-0.32	0.18	0.12	0.58	-0.09	-0.29	-3%
Year 10	0.00	-0.32	0.18	0.13	0.59	-0.09	-0.22	0%
Year 11	0.00	-0.32	0.19	0.13	0.59	-0.09	-0.15	2%

Year	CAPEX (MUSD)	OPEX (MUSD)	BALANCE (MUSD)	BALANCE AFTER TAXES (MUSD)	INCOME (MUSD)	CANON (MUSD)	NPV	IRR
Year 12	0.00	-0.32	0.19	0.13	0.60	-0.09	-0.07	4%
Year 13	0.00	-0.32	0.20	0.14	0.60	-0.09	-0.01	5%
Year 14	0.00	-0.32	0.20	0.14	0.61	-0.09	0.06	6%
Year 15	0.00	-0.32	0.21	0.15	0.62	-0.09	0.13	7%
Year 16	0.00	-0.32	0.21	0.15	0.62	-0.09	0.19	8%
Year 17	0.00	-0.32	0.22	0.15	0.63	-0.09	0.26	8%
Year 18	0.00	-0.32	0.23	0.16	0.64	-0.10	0.32	9%
Year 19	0.00	-0.32	0.23	0.16	0.64	-0.10	0.38	9%
Year 20	0.00	-0.32	0.24	0.17	0.65	-0.10	0.44	10%

This analysis shows that despite the private company has to pay a canon (15% of the income); the investment is still really cost-effective:

- I. The investment has already been profitable in year 11 (IRR>0).
- II. In year 20, the expected IRR is 10%.
- III. Balance after taxes (year 20) is MUSD 1.45

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Annex 1. Stakeholder's activities minutes

Summary Stakeholder Meeting for representatives of government, local businesses, civil society organizations, area inhabitants

Location: De Waag
 Date: 6 May 2022
 Time: 9:00 - 11:30

Agenda:

- Welcome - ILACO
- Opening and Introduction - PURP
- Data presentation MCRIT
- Results short survey - ILACO
- Discussion
- Wrap up

Drinks and snacks

Main questions and discussion topics:

Question	Response
Willingness to pay Survey:	
How many persons participated, how were these persons selected?	Sampling frame and technique was explained
Other topics that could have been asked in the survey. E.g. why do people pay the informal parking guards, do they feel blackmailed? Why do people come by car rather than other modes of transportation?	These questions were not asked.
Was walking distance taken into account?	Yes
Have people been asked what they are willing to pay? Is there a difference between on-street and off-street parking?	Results of WTP survey from the report were presented. Very few persons expressed that they would switch to public transportation.
Have people been asked why they choose to come to the city by car?	No
Parking surveys	
Participants questioned the observation that there is no full occupancy (i.e. there is availability, more supply than demand) . Is the conclusion that there is enough supply for on-street parking or the total of on-street and off-street parking?	Explained that this is an average; there may be spaces that are continuously occupied, but others are not. There is some difference between zones in the Inner-city. This is presented in the report. The conclusion was on-street parking slide, however it is based on total parking spaces including off-street
Did the survey consider parking spaces of license holders, and parking objects such as bricks or other items to either allow or disallow parking? Even though parkings spaces marked as “no parking” people still park illegally. [comment made by resident of the area]	This has all been recorded and is part of the study in terms of private on-street parking places, however we have not identified the exact number for each type of private space.

Question	Response
How has legal parking been distinguished from illegal parking?	Illegal parking in this study was identified as every parked car on a space where the person was not allowed to park, i.e. sidewalks, in front of a drive way, spaces labeled as “No Parking” space, on bicycle lane , double parked cars etc.
General	
Have demand growth expectations been taken into account?	This diagnosis gives an impression of the baseline, we looked at the current situation. In the proposal phase, demand forecasts will be integrated.
Why have stakeholders not been involved earlier?	This is a first meeting of a series.
Where are the government stakeholders? Why is there no representative of the police?	We will have a separate session with the public sector with input from this technical session.
Question about role and experience of ILACO and MCRIT. No clear introduction given on consortium and study area.	Briefly explained, and referred person to the website. PIU briefly explained the process of choice for the consultants.
Different participants expressed concern that the inner-city is “dying”; people do not go there anymore for various reasons, including poor maintenance, flooding, lack of parking, safety, tramps. Association for Entrepreneurs in the Inner-City shared the result of a recent survey involving 200 respondents, which yielded similar results in terms of mode choice for visitors of his store (~40% by car).	PIU PURP: Explained purpose of PURP project. Among others, beautification of the inner-city and ensuring that the inner-city remains a lively, pleasant place to visit. There are different projects that are executed to address these various problems. PURP will better explain how various projects are linked in a next meeting.
Due to COVID the parking demand has been reduced somewhat. What has been the impact of COVID? Is this a lasting impact?	The surveys were conducted in Feb-March. We are aware of the impact of COVID, and that there may be persons still working from home (less busy) as well as rise of e-commerce, economic situation. We also would like to hear from you what your impressions are: is the inner-city still less busy? It may be useful to do another round of surveys somewhat later in the year, to off-set this impact. Findings will be compared with previous studies pre-covid
Why did the team choose for this period to conduct the study? Were holidays included? Comment: if the inner-city is extra busy by the end of the month, when salaries have been paid, parking policy should take these peak-days into account.	We did not survey on a holiday, only regular working days and weekends as well as during the end of the month.
Where will the parking policy be implemented?	PIU: The old sections of the inner city, from Keizerstraat to behind Fort Zeelandia to Grote Combeweg. The study area is larger than this historical inner city.
What is the % of workers who park on a daily basis in the inner-city?	Was not measured, however we have some indication of long stay parkers along the street. The majority of these are expected to be workers.
Presented data gives a good impression of the parking problem. However the parking problem is part of an urban development issue and requires an <u>integral approach</u> as questions asked during the session reflect. A clear vision for the spatial design must be made before	

Question	Response
going into parking issue. If we want the city to be more alive, we need to get young people to live there which attract cafes, restaurants, shops, etc.	
Kersten (shopping mall/ hotel) does not bother investing in a parking garage which is open for public, as it is not feasible if there is no enforcement. People rather park illegally rather than pay.	
Suggestions	
<p>Are previous studies considered? What were conclusion and diagnosis from those studies?</p> <p>15 years ago there was a study funded by the IDB as well on the Urban Development Plan. Do take conclusions into consideration. It was a \$300,000 project and nothing was ever done with it. Hopefully this study does not end up in some drawer either.</p>	<p>ILACO explained what earlier studies have been consulted, and what were the most relevant findings from these studies.</p> <p>PURP: Previous studies of related projects, e.g. public transportation, have also been shared with ILACO.</p>
<p>What strategy do we want to take: to accommodate more cars in the Inner-city, or to reorganize the inner-city such that people are incentivized to choose alternative modes of transportation?</p>	<p>Higher purpose; How can we make the inner-city a pleasant place to visit.</p> <p>PURP: Purpose is that people come on foot to the inner city, but that there are still sufficient places to park. We also have related projects, e.g. a public transportation project. Everything is connected.</p>
<p>Conclusion of sufficient parking supply for the demand should be reevaluated. Perhaps it's true over the whole area, but certainly not for each sub-area.</p>	<p>In report the conclusions on block level given, however not presented today. A3 Maps available in the hall to check and validate parking supply and demand.</p>
<p>There is an extreme shortage of parking spaces in the commercial areas. Include enforcement of short stay parking on on-street parking as one of the proposals.</p>	<p>Will be considered.</p>
<p>If you want to charge people for parking, what are the preconditions that will ensure that the project will be successful and people are willing to pay?</p>	<p>If you want to improve parking facilities, you have to make it attractive. You do not want to park for SRD 20 and then you walk in water of 20 cm to get into your car. We must consider whether infrastructural adjustments are necessary. Because when you pay, you of course want a good facility.</p>
<p>Consider the after effects of parking policies as well, especially the border areas where it will be free to park.</p>	
<p>60% of parking off-street is for private users. Shops and businesses can collaborate to share each parkings for employees, such that some parkings are open for the customers.</p>	
<p>Do consider the amount of parking spaces the bus public transport system requires, which are mostly unnecessary during the day.</p>	
<p>Interesting to research: Impact of</p> <ul style="list-style-type: none"> - people searching for a parking spot - entering into and exiting out of parking spaces <p>Also the perception of pedestrians on the illegal parked cars in terms of comfort can be used for research.</p>	

Follow up

- Formal meeting with government stakeholders.
- Short survey for shops/firms in the inner-city, to assess impact of COVID, i.e. people still working from home, more people shopping on line, etc. Google forms to be distributed via the Association of Entrepreneurs in the inner-City.
- Process comments into draft report; more detail requested in several sections.

Summary Stakeholder Meeting for representatives of government

Location: De Waag, Waterkant
 Date: 31 May 2022
 Time: 9:00 - 11:00u

Agenda

- Welcome
- Opening & Introduction
- Project introduction
- Presentation: Diagnosis Parking Issue
- Results: Parking Satisfaction form
- Discussion on diagnosis
- Questions for Stakeholders
- Summary + Wrap up
- Informal drinks & snacks

Main questions and discussion topics

Question	Response
Discussion on diagnosis	
DNA member: Glad about the initiative to solve parking issue and hope that there will be parking regulation soon! 1) Can this presentation be presented in The National Assembly of Suriname to put out more policy and that it can be implemented? 2) Will the government also earn money from paid parking on its own property? Will the private sector pay tax on paid parking? The earnings can be used to make the city “pedestrian-friendly”.	PURP: 1) Yes, we can contact through you to arrange the presentation. DNA member will check with the chairman and by letter a meeting can be scheduled. 2) Ilaco: Yes, the government can earn money with paid parking. A point of discussion will be: do we want more cars in the city or fewer cars? What does the government want? DNA member: Check how many parking spaces there are, parking for people who work in the city (and parking bays for people who park for a short time. Deputy director of Culture: What do we want from the city? Do we want more cars and arrange for more

Question	Response
<p>Commissariat North-East:</p> <ol style="list-style-type: none"> 1) Wild taxi and taxi holders of well-known taxi companies also occupy parking spaces, in the city (Maagdenstraat and Heiligenweg), there is then no parking available for visitors to the city. These taxi holders also keep the street occupied, making it difficult to get out. 2) For long stay parking, a paid subscription can be applied, so that it is cheaper per month. 3) Shop owners and residents have the right to apply for yearly permits for reserved parking spaces. These are indicated with a sign including the permit number. There are some parking signs in the city where the permit has already expired and the owners have left, this needs to be checked. 4) Take also into account parking facility outside the center, example: Eddy Brumstraat when implementing parking policy. 5) Good to have the presentation for DNA as legislation is required to regulate parking. 	<p>parking spaces, or do we want less cars and make the city more touristic? Suggestion: maybe relocate the government buildings out of the city.</p> <p>Ilaco:</p> <ol style="list-style-type: none"> 1) We encountered many taxi's and buses during the inventory. Policy must also be made for parking facilities for taxis and buses. 2) There are already some companies which use paid subscription parking for staff and customers. 3) We have also made an inventory of parking permits, but we do not know which ones have expired. We would like to request more information about this from the ministry of public works. What is the price now for parking permit? Commissariat North-East: SRD 2500/year/parking space. 4) Introducing paid parking outside the center is a good idea. We are thinking of Park and Ride (P+R) facilities where you can park outside of the center for long stay cheap and safely and take the bus to go into the center. Ilaco: <ol style="list-style-type: none"> 1) Parking is not separate from public transport improvement. Accessibility is important for low-cost parking outside the city. There should be a bus available (only for the city) so people can get on and off every 10 minutes. 2) About 5 to 6 years ago, we talked to the taxi holders they have a shortened telephone number, they can just park outside the center, they don't necessarily have to occupy a parking space. <p>Road authority: The buses and taxi's should not park in the city, they can drive by to pick up passengers, parking of the busses can park outside the city, example: Leonsberg.</p>
<p>Road authority:</p> <ol style="list-style-type: none"> 1) Complete agreement with the data presented. 20 years ago similar findings were made during my research at the university. 2) Who is going to collect the fees? The funds should not be received by the government but by the private sector (PPP model), they will collect and take care of maintenance, while the government should only be monitoring. 	<ol style="list-style-type: none"> 1) Please share the research document. 2) Agree <p>Agree</p>

Question	Response
<p>3) Make the historical part of the city into a pedestrian area.</p>	
<p>Road Safety Authority:</p> <ol style="list-style-type: none"> 1) Who will make the policy? There are many scattered actors involved in making traffic policy (Ministry Public Works, Police, Ministry of TCT, Road Authority, etc). There is no integrated policy. The will of the government is not clear. 2) If money is going to be made from fines and fees, it must be invested in traffic again, parking is part of traffic. There must be a clear policy otherwise the implementation of this project will not work. 3) Consider heavy rains and flooded streets when making parking policy. 	<ol style="list-style-type: none"> 1) See next questions and answers. 2) Ok 3) Ok
Questions for Stakeholders	
<p>What is the current parking policy? How is the enforcement? Why still so much illegal parking?</p>	<p>Road Safety Authority: There is no unambiguous parking policy as far as known.</p> <p>PURP: Purpose of the program: It is an IDB loan that was approved by the state of Suriname in 2017, to the Ministry of Education, Science and Culture, and is implemented by the Directorate Culture, PURP does not stand-alone. We want to park less in the city and increase people's mobility, we want to regulate the traffic. From this point of view we have to look at the policy, is it still valid, as result, we will map out actions related to this decision.</p> <p>KPS:</p> <ol style="list-style-type: none"> 1) Police only enforces when instructed by the central government. 2) There must be an institution that regulates everything to make and implement traffic policy.
<p>Data collected during the covid period? Would it be different then and now?</p>	<p>Road authority: Completely agreement with the data presented. 20 years ago similar findings were made.</p>
<p>Partnership with the private sector</p>	
<p>How to address issue of illegal attendants? [KPS, buurtmanager, DC] Can they be trained to become formal parking attendants?</p>	<p>KPS: In the past, the illegal parking attendants were picked up. They were allowed to stay locked up for 24 hours. They have to be provided with food and increases the costs for the government. These are mostly homeless people. There is a solution to this problem, but the preconditions must also be created. It's a matter of shelter for the homeless.</p>

Question	Response
	The amount of illegal parking attendants is unknown. Mostly difficult to train them into formal parking attendants.
What are your thoughts on paid parking? How do you think people will react? Will it make the city more attractive for shops? [DC, DNA]	See comments.
How can the government stimulate usage of alternative modes for civil servants? [DC, ministries, DNA] (Mandatory car-pooling by government offices, PT, bike, etc.)	Road Safety Authority: Public transport must be well organized. The bus drivers also drive recklessly that people fear to take the bus.
Disabled parking facilities/ elderly parking on government parking	There are no such facilities at government parkings. Min. public Works: There should be a central parking in the city center for employees which includes spaces for people with disabilities and older people as well.
Loading & unloading locations (freight distributors & shops)	No comment.
Pedestrian areas/ streets	<p>Commissariat North-East: Car-free zones stimulate tourism and puts emphasis on cultural heritage. This will attract more people to the center.</p> <p>Deputy director of Culture: We are threatened to be removed from the UNESCO World Heritage list if we don't act, so that's why the PURP was implemented. If we don't maintain our heritage, we have nothing to offer tourists.</p>
Anything to consider for firesafety? [KBS]	No comment.
Anything to consider for environmental policy? [NIIMOS]	NIMOS: Air quality! Consider car-free streets. The air quality will improve after the city becomes car-free (parking outside the city)

Follow up

- Presentation sent to all stakeholders (public and private)
- Process comments into report; Consider in making draft proposals
- Invitation will be sent for the next stakeholder meeting to discuss proposals
- Setup meeting parliament (DNA) to discuss proposals

Annex 2. Thematic maps