



CONECTAR QUEIMADOS

EXECUTIVE SUMMARY

October 2021

Urban Revitalization Plan for Queimados Central Train Station

Authors and Acknowledgments

Rio de Janeiro State Government

Cláudio Castro – Governor

State Transport Department – SETRANS-RJ

Rogério Teixeira Junior – Secretary

Undersecretariat of Mobility and Modal Integration

Paula Lemos Azem – Undersecretary

State Company for Transport Engineering and Logistics – CENTRAL

Pedro Castilho – CENTRAL President

Supervision Committee

Márcio Vieira Muniz – Contract Manager

Sérgio Marcolini – SETRANS-RJ

Bernardo Cople – SETRANS-RJ

Support Team – SETRANS-RJ

Alvaro Gonzalez Rodriguez

André Paiva

Frank Queiroz

CONSORTIUM CONECTAR CONSULTING General Coordination

José Theodozio Netto – General Coordinator

Leading Specialists

Arnaldo Umbelino de Santana Júnior – Senior Architect and Urban Planning Specialist

Luiz de Albuquerque Maranhão – Senior Civil Engineering (Infrastructure) Specialist

Mônica Coimbra Loyó – Senior Transport Specialist

Vilbert dos Anjos Vasconcelos – Civil Engineering Specialist (Budget)

Sérgio José Priori Jovino Marques – Senior Civil Engineering Specialist (Structural Calculus)

Carlos Antônio Barroso Aguiar – Senior Urban Law Specialist

José Maron Maia – Senior Economics Specialist

George Lavor Teixeira – Senior Urban Mobility and Economics Specialist

Clarisse Cunha Linke – Urban Development Specialist

Support Specialists

Mauro Osorio – Economics Specialist

William de Aquino – Transportation Engineering Specialist

André Bianche – Architecture and Urbanism Specialist

Alex Ferreira Magalhães – Urban Law Specialist

Iuri Barroso de Moura – Urban Development Specialist

Paulo Gustavo Bastos – Architecture and Urbanism Specialist

Beatriz Gomes Rodrigues – Transportation Engineering Specialist

Gerval de Almeida – Architecture and Urbanism Specialist

Damiana Bastos de Almeida – Architecture and Urbanism Specialist

Maria Celeste Fortes – Architecture and Urbanism Specialist

Henrique Rabelo – Economics Specialist

Israel Sanches Marcellino – Economics Specialist

Leonardo Amaral da Veiga – Economics Specialist

Marcos Filgueiras de Sousa – Economics Specialist

Paulo Somlanyi Romeiro – Urban Law Specialist

Nina Aureliano Apparicio da Silva – Urban Law Specialist

Administrative Team

Bernardo Niskier – Consortium Legal Representative

Helena Rosa – Secretary

Support Team – Urban Projects

Pedro Cabral – Architect and Urbanist

Sergio Ubirajara Calil – Architect and Urbanist

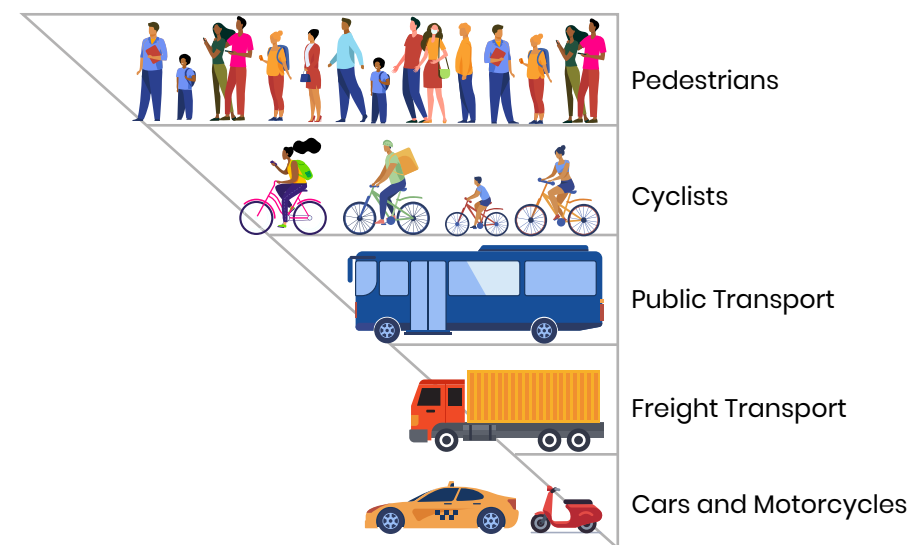
Andressa Dias – Architect and Urbanist

Ana Flávia Brandão – Architecture Intern

1. Introduction

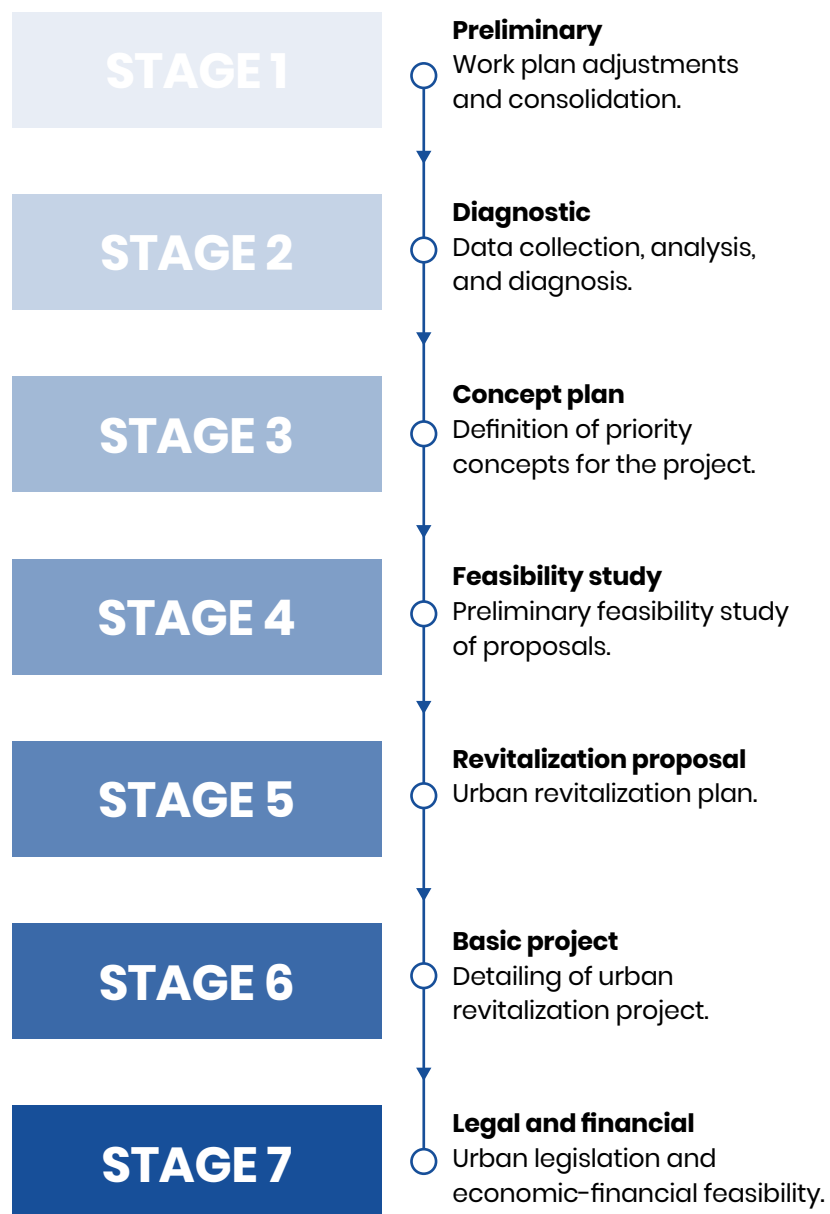
Conectar Queimados is a project led by the Rio de Janeiro State Government through its State Transport Department and State Company for Transport Engineering and Logistics (Central Logística), with support from the Queimados Municipal Government and SuperVia, and funding from the World Bank. It aims to develop an urban revitalization plan for the area around Queimados central train station. Building on the measures included in the plan, the municipality is expected to implement a more compact, integrated, and inclusive territorial development scheme based on the principles of Transit-oriented Development (TOD).

Transit-oriented Development conceptually aims to promote access to and encourage (active and collective) sustainable transport. Therefore, TOD-aligned strategies and interventions may increase connectivity in urban areas, maximizing the benefits or better-connected transport, work, and housing opportunities, as well as other activities that are essential to everyday life (education, health, shopping, services, and leisure, for example). In addition to contributing to overcoming the mobility crisis that we are currently experiencing, TOD may create favorable conditions to stimulate the economy, while promoting environmental sustainability and social inclusion.



In order to achieve the proposed objective, Conectar Queimados has relied on a multidisciplinary team of experts in urban mobility, transport engineering, architecture and urban planning, economics, planning law, communication, and other related areas. In addition, internationally recognized references on the subject were used to design the methodology, including a World Bank publication titled “Transforming Cities with Transit: the 3v approach”.

The seven stages below were considered when developing the plan:



Why was the municipality of Queimados chosen?

Queimados is located in the Rio de Janeiro metropolitan area, and has a population of approximately 150,000 people. It is an important urban center in the region known as Baixada Fluminense, with significant retail trade, higher education institutions, and an industrial district with the potential to attract businesses and create jobs. However, Queimados also faces serious socioeconomic and urban problems caused by different historical factors. It has a low human development index, and was considered until recently one of the most violent cities in Brazil.



Queimados central train station. Photo: Conectar Consortium.

The Queimados train station is located in the heart of the city. It is part of the Japeri branch of the Rio de Janeiro metropolitan train system, operated through a concession contract by SuperVia. The train station—built in the 19th century—played an important role for the development of Queimados, and became an important symbol of local identity. Over the years, the inauguration of the Presidente Dutra highway, together with the region's accelerated population growth, precarious urbanization, and increased motorization, changed local dynamics. The train station had its relevance increasingly reduced, which led to urban sprawl, and negative impacts on provision of public services, in particular, urban mobility.

In this regard, the following factors have influenced the decision to promote an urban restructuring plan for Queimados:



Promotion of sustainable transport, by improving accessibility and integration between the Queimados train station and other modes of transport (cycling, walking, and buses). Interventions associated with this topic could play a key role in attracting more passengers to use trains as a mode of transport. Providing infrastructure for active transport (walking and cycling) could encourage safer, more inclusive, and environmentally sustainable mobility patterns.



Economic development and job creation, by implementing measures to stimulate the real estate sector and attract new businesses to downtown Queimados, while preserving existing and community-based businesses.



Social inclusion, by improving sustainable transport infrastructure and services, which are essential for the most vulnerable groups in an urban environment, such as low-income groups, people with disabilities, Black people and other ethnic minorities, women, the elderly, and children. Many of these people rely on trains for their daily commutes, especially to other municipalities in Rio de Janeiro.

Conectar Queimados is part of an integrated metropolitan planning effort in Rio de Janeiro, which aims to better distribute investments and opportunities in the region, which are still highly concentrated in the state capital. We want this plan to be used as a reference for similar initiatives in other municipalities, which could generate opportunities in different parts of the Rio metropolitan area. Furthermore, these interventions are expected to serve as a development catalyst, that is, a trigger for the beginning of a virtuous cycle of prosperity for Queimados.

What is the plan's coverage area?

The scope of this urban revitalization plan is the pedestrian walkshed, that is, the immediate vicinity of the train station corresponding to the average time and distance that passengers travel on foot to reach the station.

According to this criterion, the immediate surroundings—that is, 425 meters, or a 5-minute walk from the station—were defined as a priority area for interventions, within which all major streets and roads will benefit from interventions aimed at improving the conditions and access for people using sustainable transport. The main interventions envisaged by the plan are also located in this area, including those aimed at refurbishing the station, integrating modes of transport, and developing public spaces and the city's historical and cultural heritage.

The next priority ring (425 meters to 850 meters from the station, that is, a 5-to-10-minute walk) will also receive special consideration in the plan. All access roads in this area will benefit from interventions aimed at improving sustainable transport infrastructure (both active and public transport). In addition, some proposed strategic improvements will focus on enhancing access to public facilities, and connections with districts further away from downtown.

Some strategic interventions will take place beyond the priority areas of up to 850 meters. The following map illustrates the location and scope of the plan.



2. Communication and social engagement

Communication and social engagement are vital for the success of plans aimed at the urban revitalization of central areas in towns and cities. Engaging with the local community enables the technical team to understand people's needs, and adds legitimacy to their proposals, as the issues suggested are more true to the demands and expectations of the main beneficiaries of the plan, that is, the residents.



During the development of Conectar Queimados, a series of actions were implemented to disseminate the partial results of the work and obtain contributions from all stakeholders: government, private sector, and civil society, as described below:



*Perception survey with train users at Queimados station.
Photo: Conectar Consortium.*

- **Perception survey with public transportation users:** in February 2019, the project's technical team carried out a perception survey with public transportation users to yield a diagnostic on the topic. A total of 465 users—385 train users and 80 bus users—were interviewed. They provided information on their trips, and shared their perceptions on the quality of service. These interviews were essential to help the team identify the most critical issues regarding the use of public transportation.
- **Queimados Master Plan Participatory Forum:** in March 2019, the Conectar Consortium was invited to join a forum that aimed to discuss a review of the Queimados Municipal Master Plan. Clarisse Linke, director of the consortium, made the first public presentation on the project. The event was attended by approximately 160 people, and allowed the project to be incorporated into discussions on urban policy at the municipal level.

- Website and social networks:** since April 2019, the project's website and Facebook page have been used to share information on the activities and documents produced by the project (such as reports, events, maps, presentations, and meeting minutes). In addition to sharing content, the website provides a direct communication channel between the local population and the project team. Through the "Contact Us" section, anyone can make a suggestion or complaint, or request information from Conectar Queimados. So far, we have received 24 suggestions. The project's Facebook page has 1,847 followers, who have interacted with the project's communication team through comments and private messages. Contributions from both channels were recorded and directed to the project's technical team, who used that information to develop the plan.
- TOD Participatory Workshop:** in May 2019, a workshop was held to gather input from civil society to steer the project's detailing stages. Representatives of 26 civil society and private sector entities were invited, as well as representatives from the Rio de Janeiro State Government, the Queimados Municipal Government, and the Conectar Consortium. Through working groups, the participants developed 29 proposals on a range of topics, namely "Public Space and Mobility", "Public Services", "Housing and Economic Development", "Public Transportation", and "Historical, Cultural and Environmental Heritage".



TOD workshop participants consulting posters with diagnostic information about the area covered by the plan. Photo: Conectar Consortium.



TOD workshop participants discussing potential proposals for the urban revitalization around the Queimados station. Photo: Conectar Consortium.

- **Presentations at COMCIQ monthly meetings:** in June and November 2019, presentations on the project were made at the monthly meetings of the Queimados City Council (COMCIQ). These presentations addressed the scope and progress of the project, diagnostic results, contributions obtained during the TOD Participatory Workshop, and proposals aimed at adapting the city's urban regulations. During the presentations, the board members contributed with information that was useful for the further detailing of the proposals.
- **Meetings with groups associated with informality:** in July 2019, meetings were held with informal businesses and motorcycle taxi drivers who worked around the train station. These meetings were moderated by the Queimados Municipal Government, and aimed to understand these groups' perceptions on the most critical issues in relation to their respective activities.
- **Meetings with investors:** in July 2019, a presentation about the project was made to about 80 Queimados businessmen and investors at the Premier Flat Hotel. The meeting was organized by the Queimados Municipal Government with support from the local Rotary Club. The goal was to gather input from these groups on the project and potential investment opportunities.
- **"Mobility at School" workshops:** in August 2019, several workshops were held in municipal schools in Queimados to present the project and collect input from students. The schools selected for this initiative were Primeira Igreja Batista Municipal School and Washington Manoel Municipal School, both located near the train station. In addition, Golfinhos da Baixada, a social project that offers swimming lessons to young people and children in the region, was also considered for the activity. A total of 66 children and teenagers took part in the workshops. The results of the meetings were shared with the Queimados population through an exhibition staged at the Nossa Senhora da Conceição Square.



Students developing models with suggestions for proposals in the "Mobility at School" workshops. Photo: Conectar Consortium.



Pedala Queimados organization team teaching one of the activities of the "Mobility at School" workshops. Photo: Conectar Consortium.

- **Public hearing:** this activity took place in September 2019, and attracted 52 participants from civil society and local government, in addition to representatives of the Rio de Janeiro State Government and the Conectar Consortium. The activity aimed to obtain input on proposed interventions and guidelines, with a focus on the project regulation proposals. After the presentation made by the technical team, at least 10 forms with questions raised by the public during the plenary were received.
- **Meetings with stakeholders:** during the whole process, several meetings were held with people or organizations with a direct interest in the project, such as property owners, potential investors, realtors, civil society organizations (such as Pedala Queimados), and potential funding entities, such as BNDES, Caixa Econômica Federal, and AgeRio.



Participants in the Conectar Queimados public hearing. Photo: Conectar Consortium.



Public hearing of Conectar Queimados. Photo: Conectar Consortium.



Presentation at a COMCIQ meeting to update on the progress and results of Conectar Queimados. Photo: Conectar Consortium.

3.

Main proposals and recommendations of the Plan

The proposals developed through the preparation of the plan were based on the previous stages of diagnostic and feasibility analysis, in addition to the results of different social engagement activities, which sought to adapt the suggestions to local conditions. Considering the conceptual framework suggested by the World Bank to steer efforts aimed at promoting TOD, the plan's proposals seek to strengthen three key values for the urban revitalization of the area around the Queimados train station.



Queimados shopping center next to the train station. Photo: Conectar Consortium.



Node value: improving public transportation

The availability of public transportation in the area covered by the plan is reasonably good, with the presence of a high-capacity metropolitan train system, and numerous municipal and intercity feeder bus lines. Queimados station is the 2nd busiest on the Japeri branch, with around 30,000 passengers (boarding and alighting from trains) every day under normal operating conditions.

However, external and internal accessibility at and around the train station is very precarious, as well as the circulation routes and points for boarding and alighting from buses. This situation directly affects the quality of services offered to the Queimados population, and discourages people from using trains. In order to overcome the reported challenges, the plan envisages the following measures:

Before



After



One-way (binary) on Vereador Marinho Hemetério Oliveira Avenue. Source: Consortium Conectar.

- **Remodeling the Queimados train station:** the station will undergo interventions to improve its accessibility (internal and external), in addition to enhancing users' safety and comfort. The internal area of the station will be modernized, including elevators for people with disabilities. The proposed layout seeks to minimize conflicts between pedestrian flows, with the creation of a new area for ticket offices.
- **Interventions aimed at improving the physical integration of public transport:** at first, the bus stops of the municipal and intercity lines feeding the train system will be reorganized, considering infrastructure improvements focused on improving users' comfort and safety. In the long term, the plan proposes to create two integration terminals between the bus lines and the train station to improve physical, operational, and fare integration between the systems. The streets that run parallel to the railway (Irmãos Guinle and Eloy Teixeira) will be remodeled in order to create a transit mall, prioritizing public transport, expanding active transport infrastructure, and organizing street commerce.



Before

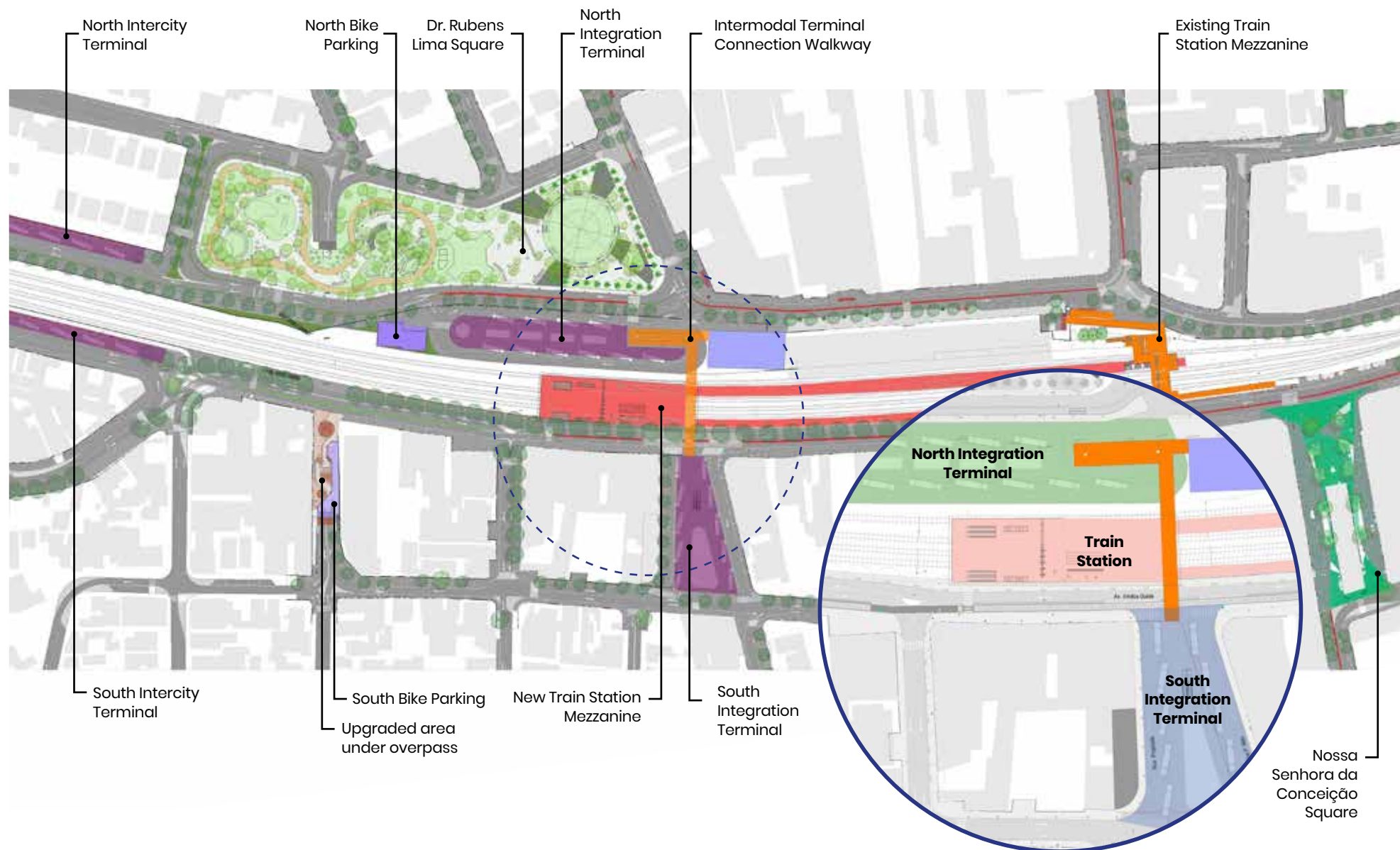


After



Preferred lane for public transport, cycling infrastructure, pedestrians and street commerce on Irmãos Guinle Avenue. Source: Consortium Conectar.

Interventions aimed at improving the physical integration of public transport



Source: Consortium Conectar.

Before



After



New shelters for the bus stops around the Queimados train station. Source: Consortium Conectar.

- **Interventions to prioritize public transport:** the plan proposes to introduce changes to the Queimados road system to improve traffic conditions and the operation of bus services. The proposals include the creation of new access points and one-way (binary) streets connecting the Presidente Dutra Highway and downtown Queimados. For the reorganization of the road system, the plan proposes to change the direction of important roads for the operation of bus lines, and to improve (vertical and horizontal) road signage. In the main transport corridors, priority lanes for public transport will be implemented, which will result in significant benefits for the operation and for the quality of the services provided.
- **Guidelines for implementing fare and operational integration:** through the diagnostic carried out earlier, the plan provides guidelines for the Rio de Janeiro State Government, the Queimados Municipal Government, and other municipalities in the metropolitan region to move forward with the design of a proposal for public transport fare integration (including buses, trains, and other modes of transport).
- **Input for a Municipal Urban Mobility Plan:** through the diagnostic and the proposals, the plan provides input for the Queimados Municipal Government to move forward with the design of a Municipal Urban Mobility Plan, especially with regard to planning aimed at sustainable transport (both active and public transport).



Place value: improving active transportation and enhancing public spaces

The Queimados train station is located in the heart of town. The surrounding areas include a wide range of public spaces, buildings, and cultural events and expressions that are part of the region's history and identity. The area is also home to significant retail trade, which even attracts shoppers from neighboring municipalities. As a result of the combination of these elements and activities, downtown Queimados is busy for most of the day.

However, the infrastructure for active transport modes, public leisure, and community spaces is far from ideal. The existence of safe, attractive, and comfortable public spaces is essential to promote mobility patterns that are more sustainable and less dependent on private vehicles. In addition, the quality of public spaces can be an important factor to strengthening local commerce, and making establishments more accessible to customers. In order to overcome this challenge, the plan envisages the following interventions:

Before



After



Improvements in the leisure facilities at Dr. Rubens Lima square. Source: Consortium Conectar.

Renovating public spaces: Dr. Rubens Lima square



Before



After



Improvement of the sidewalks around the Queimados station. Source: Consortium Conectar.

- **Renovating roads to improve pedestrian infrastructure:** the streets around the train station will be entirely redesigned with a view to expanding and adapting pedestrian infrastructure. These interventions include improving sidewalks and crossings, implementing traffic-calming elements to reduce the speed of motor vehicles, and planting more trees along the streets. In addition, adjustments to the city's urban regulations are being proposed to encourage the creation of visually active building frontages to make public spaces more attractive and improve people's perceptions of safety. These measures aim to make spaces more accessible and comfortable for pedestrians, especially those in a situation of greater vulnerability in the urban environment.
- **Creating a cycling network and bicycle parking spaces:** the plan envisages the expansion of the Queimados cycling network, connecting the surroundings of the train station with other parts of town. In addition, bicycle parking lots and racks will be installed in public spaces, so as to promote intermodal integration through the provision of safe and comfortable infrastructure close to bus and train boarding points. Adjustments proposed to the city's urban regulations will also include a requirement for new buildings to provide bike racks and changing rooms in the area covered by the plan. Providing infrastructure for safe bicycle storage and circulation is essential to increase the number of cyclists and promote more sustainable mobility patterns in the city.

- **Renovating public spaces:** squares and other public spaces used for leisure, sports, and community living within the area covered by the plan will be the subject of interventions aimed to improve infrastructure and create amenities that could make the urban environment more attractive and comfortable for the population. More importantly, these interventions will also contribute to the enhancement of the historical and cultural heritage of Queimados. Igreja Nossa Senhora da Conceição Square e Dr. Rubens Lima will be completely remodeled, including interventions for their physical integration with the train station.
- **Creating and renovating railway crossings for pedestrians and cyclists:** One of the main challenges experienced by the Queimados population when moving around town is associated with railway crossings, as the existing options are few and precarious. In addition to expanding and improving the existing access to the station, the plan proposes to create a walkway with a new platform, which will grant access to the station and integrate the new public transport terminals.



Market value: stimulating the economy and real estate development

The areas surrounding the Queimados train station concentrate a significant number of public facilities, services, and commercial activities. These are essential for the local population and for those residing in neighboring municipalities, and can favor new businesses (agglomeration economy) and real estate development. This process can significantly contribute to creating jobs, which is one of the main challenges that Queimados faces today, since a large part of the local population commutes daily to other municipalities to work.

Despite the existing potential, the area around the station has many undeveloped or underutilized plots of land (18.6 percent of the total), and real estate development is timid, although existing urban regulations allow greater building density. In order to overcome the reported challenges, the plan envisages the following measures:

- **Inducing building densification and the intensification of economic activities:** the legislative changes proposed by the plan aim to reduce the number of unused urban plots through the deployment of urban planning tools. The proposed changes are also expected to promote an intensification in economic activity in the entire area surrounding the train station, with the exception of the sections destined to reduce vulnerability, which will be the object of specific interventions.
- **Encouraging mixed use development:** this will take place by reducing the requirements for developers to provide urban contributions to new mixed use projects around the train station. The integration of complementary activities (residential and nonresidential) in the area, combined with the provision of sustainable transport, increases the accessibility to opportunities in the city.
- **Regulating building parking requirements:** the proposed normative changes are aimed at discouraging the use of private cars in the central area of Queimados by eliminating the mandatory construction of parking spaces in/around buildings. In addition, the plan proposes to restrict the creation of new parking lots (public or private) in the immediate surroundings (425 meters), and to fiscally discourage their maintenance. One way to do that is by treating parking as evidence of an inadequate use of urban areas. By doing so, the government would be able to progressively raise the urban property taxes (IPTU) paid by parking lots.

Before



After



Encourage the use of unbuilt or underutilized lots with the implementation of mixed-use buildings. Source: Consortium Conectar.

Before

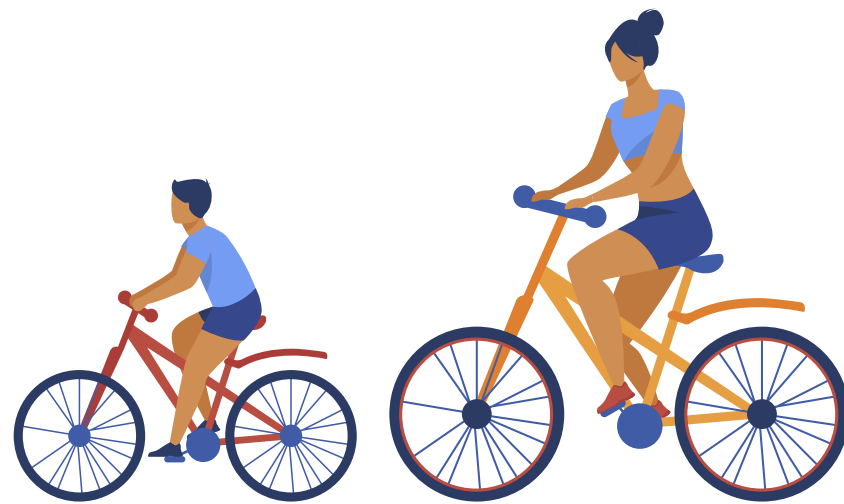


After



Improvement of the environment for pedestrian circulation by encouraging the construction of buildings with active frontages. Source: Consortium Conectar.

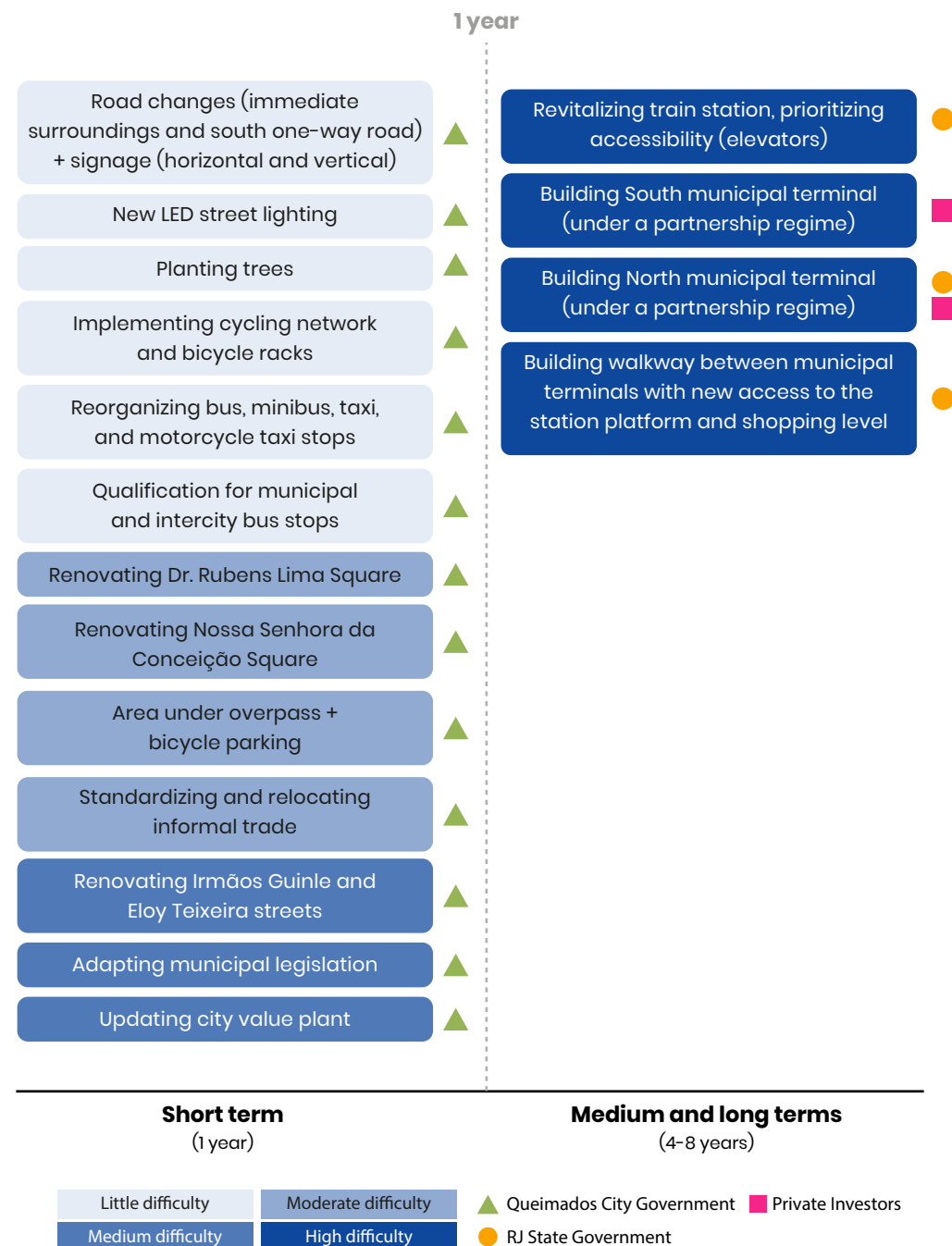
- **Encouraging sustainable construction practices:** the Master Plan should incorporate provisions aimed at the adoption of sustainable design practices for all buildings. These practices should contribute to the rational use and protection of natural resources and the soil, the expansion of green areas, and the installation of visually active building frontages, in order to induce interaction between public and private spaces. Municipal legislators should consider granting benefits according to the type of design solution adopted.
- **Land value capture:** the plan proposes to exempt developers from paying fees for development rights around the train station, in order to encourage its densification. It also suggests improving the formula used for calculating the compensation to be paid by developers. In addition, once the interventions that bring real estate value to the region have been implemented, the application of an improvement contribution fee could help finance interventions and move forward with the works, with fiscal justice and socioeconomic sustainability.



4.

Implementation strategy

The implementation and financing of the measures proposed by the plan will be under the responsibility of the Rio de Janeiro State Government and the Queimados Municipal Government. The strategy to be adopted has considered the sequential order of interventions, initially envisaging less complex interventions, which could serve as a trigger for stakeholders to join the plan (especially from the private sector and civil society), and the beginning of a virtuous cycle of development. More complex interventions are planned for the medium and long term, but their economic viability will depend on the circumstantial economic scenario in the municipality and the Rio de Janeiro metropolitan area.



Consortium Conectar

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ITDP
Instituto de Políticas de Transporte
& Desenvolvimento