EXHIBIT I – EXISTING INFRASTRUCTURE AND CONCESSION AREA

INDEX

1 INTRODUCTION 7
2 DESCRIPTION OF THE CONCESSION AREA 10
3 GENERAL DESCRIPTION OF THE STATIONS 18
3.1 PALMEIRAS-BARRA FUNDA STATION 20
3.2 LUZ STATION 23
3.3 BRÁS STATION 27
3.4 TATUAPÉ STATION 29
3.5 CORINTHIANS-ITAQUERA STATION 31
3.6 DOM BOSCO STATION 33
3.7 JOSÉ BONIFÁCIO STATION 36
3.8 GUAIANASES STATION 38
3.9 ANTÔNIO GIANETTI NETO STATION 40
3.10 FERRAZ DE VASCONCELOS STATION 42
3.11 POÁ STATION 44
3.12 CALMON VIANA STATION 46
3.13 SUZANO STATION 49
3.14 JUNDIAPEBA STATION 51
3.15 BRAZ CUBAS STATION 53
3.16 MOGI DAS CRUZES STATION 55
3.17 ESTUDANTES STATION 57
3.18 ENGENHEIRO GOULART STATION 59
3.19 USP LESTE STATION 61
3.20 COMENDADOR ERMELINO STATION 64
3.21 SÃO MIGUEL PAULISTA STATION 66
3.22 JARDIM HELENA-VILA MARA STATION 68
3.23 ITAIM PAULISTA STATION 70
3.24 JARDIM ROMANO STATION 72
3.25 ENGENHEIRO MANOEL FEIO STATION 74
3.26 ITAQUAQUECETUBA STATION 76
3.27 ARACARÉ STATION 78
3.28 GUARULHOS CECAP STATION 80
3.29 AEROPORTO-GUARULHOS STATION 82
4 ENERGY, ELECTRIFICATION AND LIGHTING SYSTEMS 85
4.1 ENERGY AND ELECTRIFICATION 85
4.1.1 LINE 11 89
4.1.2 LINE 12 97
4.1.3 LINE 13 100
4.2 LIGHTING 103
5 ROLLING STOCK 109
5.1 TECHNICAL CHARACTERISTICS AND GENERAL INFORMATION 109
5.1.1 Operational Train Fleet 109
5.1.2 Fleet Characteristics 110

5.2 MAINTENANCE AGREEMENTS 112
5.3 TRENS SERIES 113
5.3.1 2500 Series 113
5.3.2 7000 Series 115
5.3.3 8000 Series 115
5.3.4 8500 Series 117
5.3.5 9000 Series 118
5.4 FLEET MILEAGE 119
5.5 GUIDELINES FOR FLEET MAINTENANCE 120
6 SIGNALLING SYSTEMS, TELECOMMUNICATIONS AND EQUIPMENT IN STATIONS 121
6.1 SIGNAGE 121
6.2 CONTROL AND OPERATION CENTER 123
6.3 TELECOMMUNICATIONS 123
6.3.1 Optical Transmission System (STO) 123
6.3.2 Radio Communication System 124
6.3.3 Telephone System – Telephone Exchanges 125
6.3.4 Multimedia Systems (SMM) 127
6.4 OTHER EQUIPMENT IN STATIONS 133
7 PERMANENT ROUTE 180
7.1 EXTENSIONS AND QUANTITIES OF PERMANENT TRACK 180
7.2 ROAD SHARING WITH CARGO TRANSPORT SERVICE 180
7.2.1 Luz-Brás Stretch 180
7.2.2 Brás-SE Engenheiro Gualberto 181
7.2.3 SE Engenheiro Gualberto-Engenheiro Manoel Feio 182
7.3 SPECIAL WORKS OF ART 183
8 MAINTENANCE SUPPORT INFRASTRUCTURE 184
8.1 INVENTORY OF MAINTENANCE INFRASTRUCTURE 184
8.1.1 Light Maintenance Complex 184
8.1.2 Engenheiro São Paulo Maintenance Complex 185
8.1.3 Calmon Viana maintenance base 187
8.2 CONSUMABLES, TURNING, SPARE PARTS AND SPECIAL TOOLS 189
8.2.1 Train Spares 189
8.2.2 Telecom and Signaling Spares 215
8.2.3 Overhead Network Spare Parts & Substations 216
8.3 AUXILIARY VEHICLES AND EQUIPMENT 222
8.4 TECHNICAL DOCUMENTS 223
8.5 MAINTENANCE HISTORY 223
8.6 SOFTWARE AND OPERATING PROGRAMS 224
9 WATER AND SEWAGE CONNECTIONS 225
10 INSTRUMENTS CONCERNING THE CONCESSION AREA 230
10.1 GENERAL PROVISIONS 230
10.2 EXISTING TRANSPOSITIONS IN THE LINES 231
10.2.1 Walkways 233
10.2.2 Underpasses 243

10.2.3 Level crossings 245
10.2.4 Road viaducts 246
10.2.5 Road bridges 251
10.2.6 Railway viaducts 251
10.2.7 Railway bridges 255
10.2.8 Tunnels 258
11 PROPERTY TAX DATA BY MUNICIPALITY 259

ATTACHED

- **EXHIBIT I – APPENDIX 1 – Road Plan**
- **EXHIBIT I – APPENDIX 2 – List of Special Works of Art – Lines 11, 12 and 13**
- **EXHIBIT I – APPENDIX 3 – Stretches**
- **EXHIBIT I – APPENDIX 4 – CONCESSION AREA**
- **EXHIBIT I – APPENDIX 5 – Interferences**
- **EXHIBIT I – APPENDIX 6 – List of Equipment for the Exclusive Use of the Concessionaire**
- **EXHIBIT I – APPENDIX 7 – Situation of the Fleet Made Available**
- **EXHIBIT I – APPENDIX 8 – Rolling Stock - CPTM AT8303-6. Rev G**
- **EXHIBIT I – APPENDIX 9 – Instruments concerning the concession area**

OBJECTIVE

This EXHIBIT describes the EXISTING INFRASTRUCTURE in the LINES domain section and lists the equipment that integrates it in the current situation. When the VENTURES provided for in EXHIBITS II.A, II.B and II.C are carried out, they will be affected as CONCESSION ASSETS, and the INVENTORY must be updated for each VENTURE carried out, and then made available to ARTESP, under the terms of the AGREEMENT.

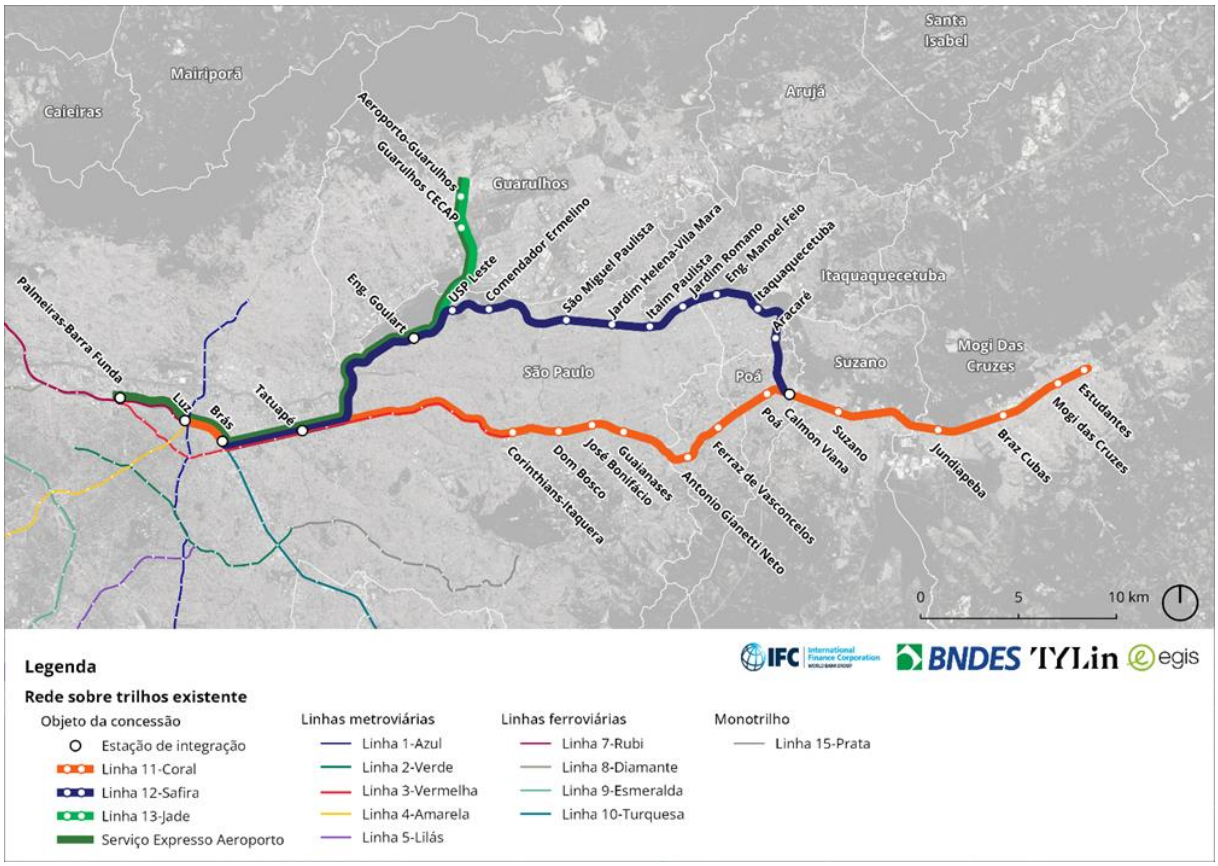
During the period of TECHNICAL VISITS, opportunities were given to interested parties for analyses regarding systems, subsystems, equipment, components and accessories of (i) territory and buildings in the CONCESSION AREA, (ii) aerial network, (iii) energy systems, (iv) signaling system, (v) telecommunications system, (vi) electrical and electronic devices, (vii) components and accessories, (viii) rolling stock, (ix) permanent track, (x) stations and other buildings (yards, workshops, washer and parking lots), (xi) special works of art and (xii) current works of art.

For the EXISTING INFRASTRUCTURE in the CONCESSION AREA, when the INVENTORY is prepared, regardless of the conditions identified in the TECHNICAL VISITS, and even if the need for replacement, expansion, expansion, partial or full modernization, acquisition of components or accessories, reconfiguration, recomposition, adjustments, repairs, maintenance or recovery due to malfunction, failure or inoperability has been observed, oxidation, obsolescence and conservation, such qualitative conditions are not subject to economic and financial rebalancing. Cases of divergent quantities described in the tables of the items may be subject to economic and financial rebalancing 3, 4, 5 and 6 presented in this EXHIBIT, pursuant to Clause 26.1.3 of the AGREEMENT.

1 INTRODUCTION

THE EXISTING INFRASTRUCTURE consists of the LINES, including the AIRPORT EXPRESS SERVICE (Figure 1), whose operation and maintenance are currently the responsibility of the Companhia Paulista de Trens Metropolitanos (CPTM). The EXISTING INFRASTRUCTURE serves 7 municipalities in the Metropolitan Region of São Paulo (RMSP): São Paulo (central region and East Zone), Guarulhos (second most populous municipality in the state), Ferraz de Vasconcelos, Poá, Itaquaquecetuba, Suzano and Mogi das Cruzes.

Figure 1- Object to be granted: LINES and AIRPORT EXPRESS SERVICE
Situation in January/2024



Source: Geosampa, 2023. Elaborated by: TYLIN-Egis Consortium.

LINE 11 is 50.6 km long and is the busiest among the train lines in the RMSP.

LINE 11 operates in 16 stations, 3 of which in the central region of São Paulo (Luz, Brás and Tatuapé), which allow integration with 3 subway lines, in addition to the train services of Line 10-Turquoise and the AIRPORT EXPRESS SERVICE - see Figure 2); 4 stations in the East Zone (Corinthians-Itaquera, which also allows integration with the subway, Dom Bosco, José Bonifácio and Guaianases); 2 stations in the municipality of Ferraz de Vasconcelos (Antônio Gianetti Neto and Ferraz de Vasconcelos); 2 stations in Poá (Poá and Calmon Viana, which allows integration with LINE 12); 1 station in Suzano (Suzano) and 4 stations in Mogi das Cruzes (Jundiapeba, Braz Cubas, Mogi das Cruzes and Estudantes).

LINE 12 is 38.8 km long and operates in 13 stations. In the central region of São Paulo, from Brás to a few meters after the Tatuapé station, its track is parallel to the LINE 11 track, but then its guideline changes in the north direction. In the capital, it serves 7 stations in addition to Brás and Tatuapé: Engenheiro Goulart (where it is possible to integrate with LINE 13), USP Leste, Comendador Ermelino, São Miguel Paulista, Jardim Helena-Vila Mara, Itaim Paulista and Jardim Romano. The other 2 municipalities served by the line are Itaquaquecetuba, where there are 3 stations (Engenheiro Manoel Feio, Itaquaquecetuba and Aracaré), and Poá, where it integrates with LINE 11 at the Calmon Viana station.

LINE 13 is 8.8 km long and the regular service serves 3 stations: Aeroporto-Guarulhos, Guarulhos-Cecap and Engenheiro Goulart. Associated with LINE 13 there is the AIRPORT EXPRESS SERVICE, which serves the Aeroporto-Guarulhos, Guarulhos-Cecap, Brás, Luz and Palmeiras-Barra Funda stations; in the direction of the airport, it serves the same stations, except Brás.

The Figure 2 schematically presents the metropolitan transport network of the RMSP, indicating all the connections associated with the object of this concession.

Figure 2- Schematic map of the existing metropolitan transport network in the RMSP (December/2023)



Expresso Turístico (confira destinos no site CPTM) *Touristic Express*	CPTM
Ponte Orca ao Zoológico *Orca Shuttle to the Zoo*	EMTU
A Corredor São Mateus-Jabaquara *São Mateus-Jabaquara Corridor*	EMTU
B Corredor Guarulhos-SP *Guarulhos-SP Corridor*	EMTU
C Corredor Itapevi-SP *Itapevi-SP Corridor*	EMTU
Terminal de Ônibus Integrado *Integrated Bus Terminal*	EMTU
Estação *Station*	Acesso livre *Free access*
Integração gratuita *Free interchange*	Integração tarifada *Paid interchange*
Integração Horária: Horário especial (veja no site: METRÔ/CPTM) *Free interchange during off-peak hours*	
Integração especial: Necessário complemento de tarifa *Interchange - fee supplement required*	
400m Distância em metros, a pé *Distance in meters, on foot*	
Terminal Rodoviário *Long Distance Bus Terminal*	Aeroporto *Airport*

Informações úteis *Useful Information*

CPTM	www.cptm.sp.gov.br	**0800 055 0121**
EMTU	www.emtu.sp.gov.br	**0800 724 0555**
METRÔ	www.metro.sp.gov.br	**0800 770 7722**
VIAQUATRO	www.viaquatro.com.br	**0800 770 7100**
VIAMOBILIDADE	www.viamobilidade.com.br	**0800 770 7106**

Fonte: CPTM, 2023 (link).

2 DESCRIPTION OF THE CONCESSION AREA

This EXHIBIT presents the areas that will be under the responsibility of the CONCESSIONAIRE during the CONCESSION TERM, along the entire length of the LINES, as per Appendix 4 of this EXHIBIT.

The CONCESSION AREA is distributed as follows:

Table 1 - Extension and limit of the CONCESSION AREA (EXISTING INFRASTRUCTURE)

LINE / SERVICE	TERMINAL STATION 1	TERMINAL STATION 2	LENGTH (KM) [1]	PILINGS [2]
11	PALMEIRAS-BARRA FUNDA	ESTUDANTES	54,327	KM 4+691 to KM 0+0003 + KM 0+000 to KM 51+160
12	BRÁS	CALMON VIANA	38,819	KM 2+240 to KM 41+140
13	ENGENHEIRO GOULART	AEROPORTO-GUARULHOS	8,740	KM 12+800 to KM 25+500

[1] Extension considering the distance between the axis (geometric center of the platform) of the terminal stations.

[2] Section to be granted for operation and maintenance of the LINES. Mileage considers the entire length of existing track, including yards and auxiliary roads located after the terminal stations.

3 Ground zero (km 0+000) is located at Luz station, below bridge 2, identified by a sign "LUZ → KM 0".

Fonte: CPTM, 2024.

The area of the EXISTING INFRASTRUCTURE of LINES 11, 12, and 13 begins in the vicinity of the Palmeiras-Barra Funda station, at stake 4+691, considering as a starting point, stake 0+000, the geographic kilometer marker installed at Luz station, located below bridge 2, identified by a sign "LUZ -> KM 0" (CPTM ground zero). Its terminus is located, for LINE 11, at stake 51+160; for LINE 12, at stake 41+140; and for LINE 13, at stake 25+500, according to Table 1.

The polygon of the CONCESSION AREA, contained in Appendix 4, defines the contour and limitation of the territory on which the activities of the CONCESSION SERVICES will be provided.

The polygon of the CONCESSION AREA presented in Appendix 4 will be adjusted as a result of the projects to be developed by the CONCESSIONAIRE for the ENTERPRISES and the projects of the INTERVENTIONS, on a georeferenced basis UTM SIRGAS 2000. As the projects, both VENTURES and INTERVENTIONS, are approved, the CONCESSION AREA will be updated, and again in the final execution of each project (*as built*), under the terms of EXHIBIT II.A.

The final adjustment of the CONCESSION AREA will be provided, after the implementation of the extensions of the LINES, by the CONCESSIONAIRE with the APPROVAL of the INDEPENDENT AUDITOR and will receive the non-objection of ARTESP with the support of the GRANTING AUTHORITY and support of CPTM, and other agents that operate in the areas, such as MRS.

The following are tables indicating the stations, substations, sectioning cabins, workshops, shelters, yards and terminal that are part of the EXISTING INFRASTRUCTURE and are, therefore, under the responsibility of the CONCESSIONAIRE.

Table 2 – Stations that are part of the CONCESSION AREA

Season	Address	Municipality	Zip code	Living area (m²) [1]
Palmeiras-Barra Funda	**Access 1:** Avenida Auro Soares de Moura Andrade, 664 - Barra Funda. **Access 2:** Rua da Várzea, s/nº - Várzea da Barra Funda.	São Paulo	01156-001	48.730
Luz	**Access 1:** Praça da Luz, nº 1 - Bom Retiro. **Access 2:** Rua Mauá, nº 1 - Centro.	São Paulo	01120-010	26.566
Brás	**Access 1:** Praça Agente Cícero, s/nº - Brás. **Access 2:** Rua Domingos Paiva, s/nº - Brás.	São Paulo	03002-010	36.053
Tatuapé	**Access 1:** Rua Catiguá, 174 - Tatuapé. **Access 2:** Rua Tuiuti, s/nº - Tatuapé.	São Paulo	03307-000	20.478
Corinthians-Itaquera	Rua do Contorno, 60 - Vila Campanela.	São Paulo	08220-000	7.439
Don Bosco	**Access 1:** Rua Sábbado D'angelo, 1.024 - Itaquera. **Access 2:** Rua Italina, s/nº - Vila Carmosina.	São Paulo	08210-790	33.503
José Bonifácio	Avenida Nagib Farah Maluf, 1.500 - José Bonifácio Residential Complex.	São Paulo	08255-000	20.974
Guaianases	**Access 1:** Salvador Gianetti Street, s/nº - Guaianases. **Access 2:** Rua Benedito Leite de Ávila, s/nº - Jardim Aurora	São Paulo	08441-480	23.554
Antônio Gianetti Neto	**Access 1:** Avenida Governador Jânio Quadros, 1200 - Parque São Francisco. **Access 2:** Rua Júlio de Carvalho, s/nº - Jardim Júlio de Carvalho.	Ferraz de Vasconcelos	08526-000	15.695
Ferraz de Vasconcelos	Praça da Independência, s/nº - Centro	Ferraz de Vasconcelos	08500-015	6.116
Poá	**Access 1:** Avenida Brasil, s/nº - Centro. **Access 2:** Rua Herculano Duarte Ribas, s/nº - Conjunto Alvorada.	Poá	08561-350	2.547
Calmon Viana	Avenida Brasil, 1.041 - Calmon Viana.	Poá	08561-000	4.454
Suzano	**Access 1:** Av. Major Pinheiros Fróes, 55 - Vila Maria de Maggi. **Access 2:** Rua Prudente de Moraes s/nº - Centro.	Suzano	08680-000	14.648
Jundiapeba	Rua Aurea Martins dos Anjos, s/nº - Jundiapeba.	Mogi das Cruzes	08750-530	6.434
Braz Cubas	**Access 1:** Av. Anchieta, 1.355 - Vila Socorro Velho. **Access 2:** Rua Santa Virgínia, s/ nº.	Mogi das Cruzes	08740-080	18.848

Season	Address	Municipality	Zip code	Living area (m²) [1]
Mogi das Cruzes	Praça Sacadura Cabral, s/nº - Centro.	Mogi das Cruzes	08710-450	16.197
Estudantes	**Access 1:** Rua Professor Álvaro Pavan, s/nº - Centro Cívico. **Access 2:** Rua 8 de Junho, s/nº - Vila Mogilar.	Mogi das Cruzes	08780-430	12.310
Engenheiro Goulart	**Access 1:** Av. Dr. Assis Ribeiro, 3.470 - Cangaíba. **Access 2:** Via Parque, s/nº - Jardim Keralux.	São Paulo	03725-040	11.939
USP Leste	Of. Dr. Assis Ribeiro, 6,081 - Ermelino Matarazzo.	São Paulo	38207-900	13.241
Comandante Ermelino	Avenida Dr. Assis Ribeiro, 8.454 - Ermelino Matarazzo.	São Paulo	03808-000	14.434
São Miguel Paulista	Rua Beraldo Marcondes, 136 - São Miguel Paulista.	São Paulo	08010-070	19.535
Jardim Helena-Vila Mara	**Access 1:** Rua São Gonçalo do Rio das Pedras, 1.200. **Access 2:** Rua São Gonçalo do Rio das Pedras, 1.140 – Vila Mara.	São Paulo	08081-000	13.586
Itaim Paulista	**Access 1:** Rua Rafael Correa da Silva, 13 - Itaim Paulista. **Access 2:** Rua Cordão de São Francisco, s/nº - Vila Aimore.	São Paulo	08190-000	21.131
Jardim Romano	Rua José Alvares Moreira, 349 - Jardim Romano.	São Paulo	08111-220	13.488
Engenheiro Manoel Feio	Of. Eldorado, s/nº - Vila Gepina.	Itaquaquecetuba	08570-970	11.959
Itaquaquecetuba	**Access 1:** Avenida Presidente Tancredo Neves, 746 - Estação. **Access 2:** Rua Antonio da Silva Costa, s/nº - Jardim Gonçalves.	Itaquaquecetuba	08580-000	13.523
Aracaré	**Access 1:** Rua Rio de Janeiro, s/nº - Vila Miranda. **Access 2:** Rua Aracaré, s/nº - Jardim Roseli.	Itaquaquecetuba	08471-000	11.955
Guarulhos-Cecap	Av. Natália Zarif, 460 - Parque Industrial do Jardim São Geraldo.	Guarulhos	07140-040	9.133
Aeroporto-Guarulhos	Av. Marginal do Rio Baquirivú, 3.300.	Guarulhos	07140-233	19.657

[1] Approximate areas.

Elaborated by: TYLIN-Egis Consortium.

Table 3 – Yards, maintenance complexes, substations and sectioning and paralleling cabins that are part of the CONCESSION AREA (EXISTING INFRASTRUCTURE)

Structure Type / Name	Address	Municipality	Zip code	Living area (m²) [1]
SE / Engº São Paulo	Rua Bresser, 1933-A	São Paulo	03164-160	2.509,78
S.E. / Patriarca	Rua Barra do Jequital, 63	São Paulo	03656-120	5.834,97
SE / Dom Bosco	Rua Sabado D'Angelo, 1024	São Paulo	08260-005	323,63
SE / Guaianases	Rua Capitão Pucci, 60	São Paulo	08412-010	354,60
SE / Calmon Viana	Rua Herculano Duarte Ribas, 612	Poá	08550-130	2.841,82
SE / Braz Cubas	Rua Prof. Mario Portes, 700	Mogi das Cruzes	08735-280	6.941,51
SE / Engº S. Gualberto	Rua Melo Peixoto, 1620	São Paulo	03070-000	5.704,15
SE / Commander Ermelino	Avenida Dr. Assis Ribeiro, 8459	São Paulo	-	3.783,23
SE / Manoel Feio	Rua Araçatuba, 700	Itaquaquecetuba	08577-250	2.481,93
SE / Engº Goulart	Avenida Dr. Assis Ribeiro, 3965	São Paulo	03717-000	265,02
SE / Ayrton Senna	Rua José Marques Prata, s/n	Guarulhos	07034-090	4.275,29
SE / Aeroporto-Guarulhos	Rua Joaquina de Jesus, 789	Guarulhos	07140-233	4.001,48
CS / Brás	Praça Agente Cícero, s/nº	São Paulo	03046-010	116,28
CS / Villa Matilde	Avenida Alvinópolis, 450	São Paulo	03644-070	1.182,93
CS / Artur Alvim	Rua Dr. Luis Aires, s/n	São Paulo	08220-010	216,33
CS / José Bonifácio	Avenida Nagib Farah Maluf, 1880	São Paulo	08253-100	779,98
CS / Ferraz de Vasconcelos	Two Félix Mazzucca, 100	Ferraz de Vasconcelos	08500-015	25,00
CS / Jundiapeba	Avenida Guilherme Giorgi, 1405	Mogi das Cruzes	08750-540	516,77
CS/Estudantes	Rua Prof. Alvaro Pavan, s/n	Mogi das Cruzes	494-660	342,08
CS / Engº Goulart	Avenida Dr. Assis Ribeiro, 3223	São Paulo	03717-001	1.371,31
CS / Itaim Paulista	Rua Cordão de São Francisco, 806	São Paulo	08190-000	307,68
CS / Itaquaquecetuba	Rua Antônio da Silva Costa, 300	Itaquaquecetuba	08573-480	86,36
CS / Guarulhos CECAP	Access Rodovia Hélio Smidt, s/n	São Paulo	-	584,32
Yard / Novo Brás	Av. Rangel Pestana s/nº	São Paulo	03164-300	7.017,50
Abrigo / Eng. São Paulo	Rua Pires do Rio, 41	São Paulo	03163-010	67.285,96
Yard / Belém	Rua Eng. Balem, s/n	São Paulo	03061-020	10.068,27
Yard / Guaianases	Rua Salvador Gianetti, s/n	São Paulo	08410-000	11.325,10
Terminal / Mogi das Cruzes	Of. Gov. Adhemar de Barros, 18	Mogi das Cruzes	08735-075	5066,64
Yard / Manoel Feio	Rua Araçatuba, 1017-647	Itaquaquecetuba	08577-250	35968,98
Pátio Itaim Paulista	Rua Cordão de São Francisco, 806	São Paulo	08190-000	2.936,94
Pátio Eng. Trindade	Rua Basuca s/n, esquina Rua do Túnel	São Paulo	03703-140	20.500,00

[1] Approximate areas.

Elaborated by: TYLIN-Egis Consortium.

In addition to the points presented, it is highlighted that:

i. the delimitation of the CONCESSION AREA at the Palmeiras-Barra Funda, Luz and Brás stations, whose operation and maintenance will be shared with CPTM and/or other concessionaires, is presented in EXHIBIT III.C – Part 4.

ii. the Itaquera Employee Residence Area is not part of the CONCESSION AREA, having access to a public road outside the right-of-way. Its location is shown in the figure below.

iii. the Calmon Viana Employee Residence Area is in the process of being vacated, and will be incorporated into the CONCESSION AREA, after its total eviction, to be organized by the GRANTING AUTHORITY with the support of CPTM.

iv. the Trindade and Mogi das Cruzes Employee Residence Areas are incorporated into the CONCESSION AREA. They are currently occupied and must be released by the CONCESSIONAIRE for their use, with the support of the GRANTING AUTHORITY and the support of CPTM.

Figure 3 - Location of the employees' residence area - Sebastião Gualberto



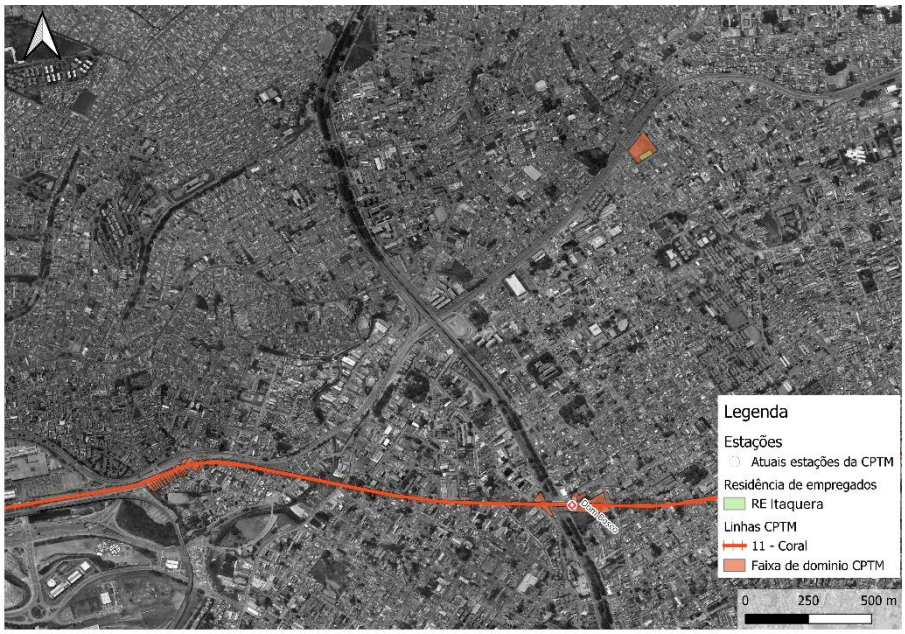
Elaborated by: TYLIN-Egis Consortium.

Figure 4 - Location of the employees' area of residence - Trindade



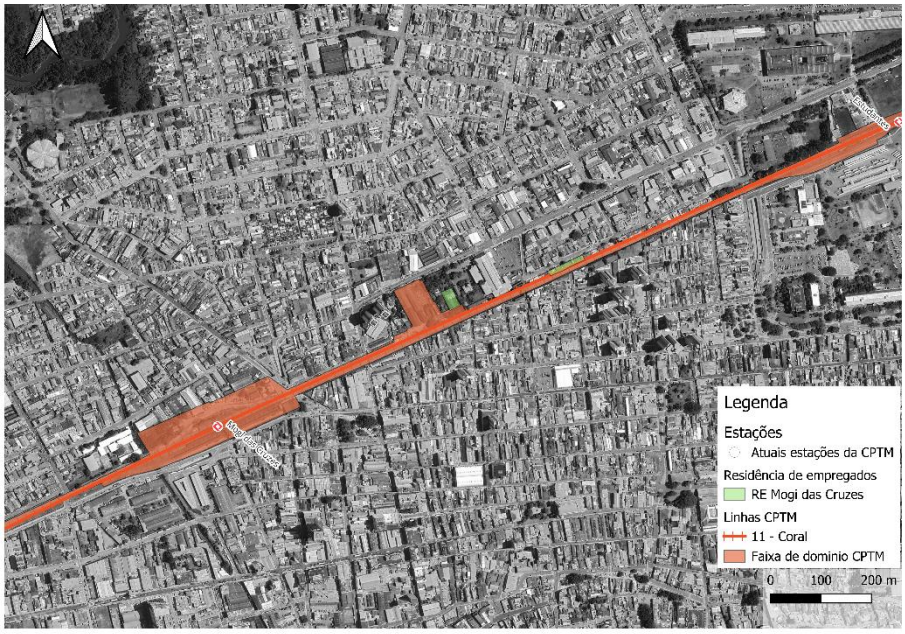
Elaborated by: TYLIN-Egis Consortium.

Figure 5 - Location of the employees' area of residence - Itaquera



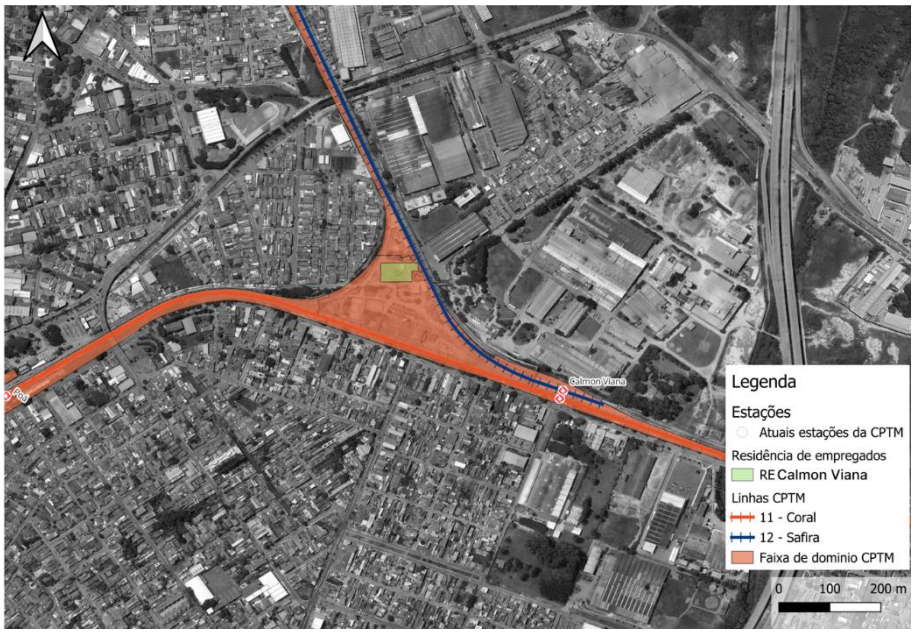
Elaborated by: TYLIN-Egis Consortium.

Figure 6 - Location of the employees' area of residence – Mogi das Cruzes



Elaborated by: TYLIN-Egis Consortium.

Figure 7 - Location of the employees' area of residence – Calmon Viana



Elaborated by: TYLIN-Egis Consortium.

For a better understanding of this delimitation, the detailed view, as well as the list of documents related to each of the stretches, is contained in the sequence of attachments listed below:

- EXHIBIT I – Appendix 3 – Stretches
- EXHIBIT I – Appendix 4 – CONCESSION AREA

- EXHIBIT I – Appendix 5 – Interference

In the drawings and details of the appendices, the sections and known INTERFERENCES of LINE 11 (Palmeiras-Barra Funda to Estudantes section), LINE 12 (Brás to Calmon Viana section) and LINE 13 (Engenheiro Goulart to Guarulhos Airport section) are represented.

Regarding INTERFERENCES, it is emphasized that these lists are not exhaustive and the CONCESSIONAIRE must verify the existence of any other INTERFERENCES in other registries or databases of public access, observing the allocation of risks provided for in Clause 20 and 22 of the AGREEMENT.

3 GENERAL DESCRIPTION OF THE STATIONS

The stations that are part of this concession are indicated in the Table 4 and are described in greater detail in the subsequent items of this chapter.

Table 4 - General characteristics of the stations that are part of the concession

SEASON	CONCESSION LINE / SERVICE	MUNICIPALITY	AVERAGE PASSENGERS ON WEEKDAYS - MDU (AUG/2024) [1]	INTEGRATION WITH THE METRO-RAIL SYSTEM	BICYCLE PARKING SPACES	AVCB
PALMEIRAS-BARRA FUNDA	AIRPORT EXPRESS	SÃO PAULO	76.285	YES	DOES NOT HAVE	VALID UNTIL FEB/25
LUZ	11 / 12 / AIRPORT EXPRESS	SÃO PAULO	115.727	YES	DOES NOT HAVE	VALID UNTIL FEB/25
BRÁS	11 / 12 / AIRPORT EXPRESS	SÃO PAULO	133.175	YES	DOES NOT HAVE	DOES NOT HAVE
TATUAPÉ	11 / 12	SÃO PAULO	78.365	YES	DOES NOT HAVE	VALID UNTIL NOV/25
CORINTHIANS-ITAQUERA	11	SÃO PAULO	41.708	YES	DOES NOT HAVE	VALID UNTIL SEP/25
DON BOSCO	11	SÃO PAULO	19.174	NO	DOES NOT HAVE	VALID UNTIL APR/26
JOSÉ BONIFÁCIO	11	SÃO PAULO	17.074	NO	DOES NOT HAVE	VALID UNTIL APR/26
GUAIANASES	11	SÃO PAULO	73.508	NO	DOES NOT HAVE	VALID UNTIL OCT/25
ANTONIO GIANETTI NETO	11	FERRAZ DE VASCONCELOS	14.477	NO	DOES NOT HAVE	DOES NOT HAVE
FERRAZ DE VASCONCELOS	11	FERRAZ DE VASCONCELOS	26.353	NO	136	VALID UNTIL APR/26
POÁ	11	POÁ	13.088	NO	60	VALID UNTIL NOV/24
CALMON VIANA	11 / 12	POÁ	8.628	NO	84	VALID UNTIL SEP/25
SUZANO	11	SUZANO	39.017	NO	576	VALID UNTIL MAR/26
JUNDIAPEBA	11	MOGI DAS CRUZES	7.500	NO	DOES NOT HAVE	DOES NOT HAVE

SEASON	CONCESSION LINE / SERVICE	MUNICIPALITY	AVERAGE PASSENGERS ON WEEKDAYS - MDU (AUG/2024) [1]	INTEGRATION WITH THE METRO-RAIL SYSTEM	BICYCLE PARKING SPACES	AVCB
BRAZ CUBAS	11	MOGI DAS CRUZES	7.878	NO	DOES NOT HAVE	DOES NOT HAVE
MOGI DAS CRUZES	11	MOGI DAS CRUZES	11.816	NO	DOES NOT HAVE	DOES NOT HAVE
ESTUDANTES	11	MOGI DAS CRUZES	14.541	NO	DOES NOT HAVE	DOES NOT HAVE
ENGENHEIRO GOULART	12 / 13	SÃO PAULO	7.620	NO	274	VALID UNTIL NOV/24
USP LESTE	12	SÃO PAULO	6.365	NO	270	VALID UNTIL JAN/26
COMMANDER ERMELINO	12	SÃO PAULO	8.471	NO	196	VALID UNTIL AUG/25
SÃO MIGUEL PAULISTA	12	SÃO PAULO	17.622	NO	208	VALID UNTIL MAR/26
JARDIM HELENA-VILA MARA	12	SÃO PAULO	15.711	NO	256	VALID UNTIL OCT/25
ITAIM PAULISTA	12	SÃO PAULO	29.905	NO	256	VALID UNTIL JUN/26
JARDIM ROMANO	12	SÃO PAULO	19.174	NO	240	VALID UNTIL JUL/25
ENGENHEIRO MANOEL FEIO	12	ITAQUAQUECETUBA	8.368	NO	DOES NOT HAVE	VALID UNTIL JUN/26
ITAQUAQUECETUBA	12	ITAQUAQUECETUBA	19.421	NO	DOES NOT HAVE	DOES NOT HAVE
ARACARÉ	12	ITAQUAQUECETUBA	6.724	NO	DOES NOT HAVE	DOES NOT HAVE
GUARULHOS-CECAP	13 / AIRPORT EXPRESS	GUARULHOS	5.257	NO	192	VALID UNTIL NOV/24
AEROPORTO-GUARULHOS	13 / AIRPORT EXPRESS	GUARULHOS	11.261	NO	100	VALID UNTIL JAN/25

[1] Refers to data of passengers of the LINES embarked at the indicated stations. Thus, the quantity indicated at the Luz, Brás, Tatuapé, Calmon Viana and Engenheiro Goulart stations covers more than one line.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

During the TECHNICAL VISIT, any other data necessary for the proper provision of the SERVICE could be verified, observing the conditions of the EXISTING INFRASTRUCTURE described in this EXHIBIT. The

GRANTING AUTHORITY or CPTM will not be held liable due to the insufficiency of the data collected at the time of the TECHNICAL VISIT.

The Fire Department Inspection Records (AVCBs) are renewed every 2 years. The AVCBs listed in the Table 4 that expire before the start of the COMMERCIAL OPERATION will be renewed by CPTM. In the case of the Aracaré station, CPTM agreement services for accessibility adjustments, compliance with labor legislation and obtaining AVCB, under the terms indicated in EXHIBIT II.D.

It is the CONCESSIONAIRE's obligation to obtain, maintain and renew the Fire Department's Inspection Records for all infrastructure related to the object and term of the CONCESSION, as well as all other licenses and permits necessary for the execution of the activities under its responsibility, bearing the corresponding costs.

3.1 PALMEIRAS-BARRA FUNDA STATION

The Palmeiras-Barra Funda station is located between Auro Soares de Moura Andrade Avenue and Várzea Street, in the municipality of São Paulo. The SERVICES of Line 3-Red of the METRO, Line 7-Ruby of CONCESSIONÁRIA TIC TRENS S.A., Line 8-Diamond of VIAMOBILIDADE, and more recently the AIRPORT EXPRESS SERVICE, operate at this station.

Table 5 - General characteristics of the Palmeiras-Barra Funda station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
76.3k [1]	AIRPORT EXPRESS	3-Red (M) 7-Rubi/TIM/TIC (T) 8-Diamond (T)	Has. [2] Expiry: 14/02/2025	It does not have	SPTrans (municipal) EMTU (intermunicipal) Artesp (highway)
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
10	Platforms 1 and 2	Line 8-Diamond	245	10	Central
	Platforms 3 and 4	Line 7-Ruby	300	11	Central
	Platforms 5 and 6	Line -Rubi and TIC North Axis	300 [3]	11	Central
	Platforms 7 and 8	LINE 11	246	11	Central
	Platforms 9 and 10	AIRPORT EXPRESS	300	11	Central

[1] In August/2024, LINE 11 did not operate at the Palmeiras-Barra Funda station.

[2] The AVCB of the Palmeiras-Barra Funda station is the responsibility of the METRO. Although the TIC EIXO NORTE Concession considers works at this station, the obligation to issue the AVCB is for the terminal as a whole, so it is maintained with the METRO. Thus, the responsibility for sharing the use of the terminal and dividing pecuniary obligations is the object of the agreement contained in Appendix 1 of EXHIBIT III.C.

[3] Concession of the TIC EIXO NORTE provides for an extension of 150 meters of this platform for the operation of the intercity train (TIC).

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.



Figure 8 - Location of Palmeiras-Barra Funda station

Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Also known as the Palmeiras-Barra Funda Intermodal Terminal, the place where the homonymous CPTM station is located brings together, in addition to train and subway services, terminals of municipal, metropolitan, intercity, interstate and international bus lines. The Palmeiras-Barra Funda station will maintain a free transfer between the train and subway lines.

The intermodal terminal has two accesses for pedestrians, to the north by Jornalista Aloysio Biondi Street and to the south by Auro Soares de Moura Andrade Avenue. These accesses, consisting of ramps and stairs, and the free area (unpaid) of the mezzanine of the terminal building, are the responsibility of METRÔ. Only a part of the existing square, at the South access, is part of the EXISTING INFRASTRUCTURE. In the free area of the mezzanine, only the space adjacent to the ticket office is part of the EXISTING INFRASTRUCTURE. In the paid area, the lobby and the accesses to the platforms where their services operate are part of the EXISTING INFRASTRUCTURE, although there are stairs and elevators in this location that are the responsibility of VIAMOBILIDADE and TIC TRENS, as shown in Figure 2 of EXHIBIT III.C.

Under the TIC EIXO NORTE Concession Agreement, the Palmeiras-Barra Funda station will be the terminal station for both the Line 7-Ruby service and the future express service that will connect the cities of São Paulo, Jundiaí and Campinas. The works related to this station under the responsibility of the Concessionaire of TIC TRENS S.A. are described in EXHIBIT II.D.

The engineering works indicated in the table below are installed at this station, which will be transferred to the CONCESSIONAIRE and must be returned at the end of the CONCESSION, observing the provisions of EXHIBIT III.G.

Table 6 – Works of art at the Palmeiras-Barra Funda station

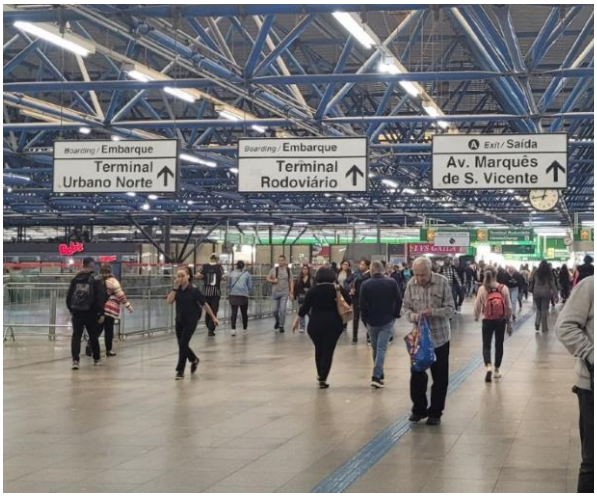
Artwork	Artist	Title	Location
Dashboard	Marcelo Lago	Blue Panel	Mezanino - Paid Area
Dashboard	Danilo Blanco	Surroundings Among Us	-

Figure 9 - Interior view of the station access walkway



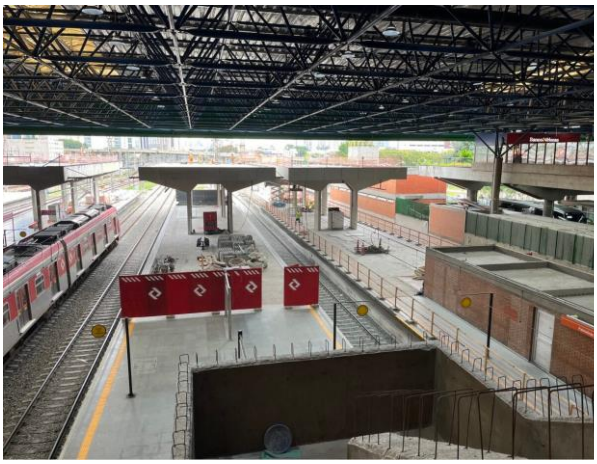
Source: TYLIN-Egis Consortium, 2023.

Figure 10 - View of the lobby, unpaid area, with directions to bus terminals



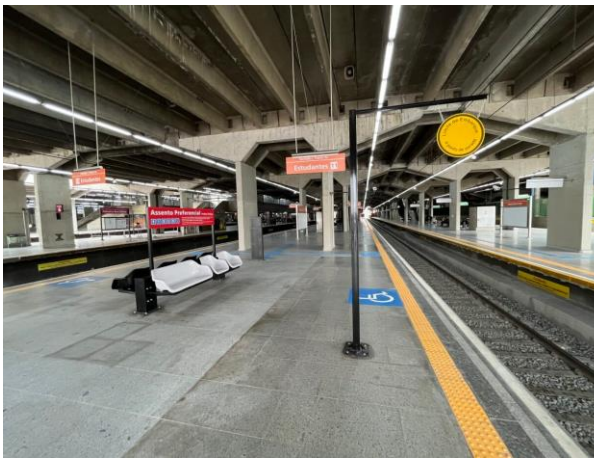
Source: TYLIN-Egis Consortium, 2023.

Figure 11 - View of the platforms where LINE 11 will operate and, further to the right, where the Airport Express service operates1



[1] Photograph from September 2023, a few days after the service opened at the station.
Source: TYLIN-Egis Consortium, 2023.

Figure 12 - View of the platform where LINE 11 will operate and, further to the right, where the Airport Express service operates1



[1] Photograph from September 2023, a few days after the service opened at the station.
Source: TYLIN-Egis Consortium, 2023.

Figure 13 - Airport Express train stop at Palmeiras-Barra Funda station



Source: TYLIN-Egis Consortium, 2023.

Figure 14 - View of the geometry of the tracks upon arrival at Palmeiras-Barra Funda station (east)



Source: TYLIN-Egis Consortium, 2023.

3.2 LUZ STATION

The Luz station, in 1982, was listed as a monument of historical and architectural interest by the Council for the Defense of the Historical, Archaeological, Artistic and Tourist Heritage of the State of São Paulo (CONDEPHAAT) and, in 1996, it was inscribed in the Books of Historical and Fine Arts Listing of the National Institute of Historical and Artistic Heritage (IPHAN).

Currently, the station serves lines 7-Ruby and 10-Turquoise through service 710, LINE 11 and AIRPORT EXPRESS SERVICE, in addition to free integrations with lines 1-Blue of the Metro and 4-Yellow of VIAQUATRO. The TIC EIXO NORTE Concession provides for the extinction of service 710 from the

expansion of LINE 11 to the Palmeiras-Barra Funda station, a work under the responsibility of CPTM. Thus, Luz station will no longer serve Line 7-Rubi, so that the configuration planned for the station is the one presented in the Table 7, with two platforms for Line 10-Turquoise and the others, for the services of LINE 11 and the AIRPORT EXPRESS SERVICE.

Table 7 - General characteristics of the Luz station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
115.7k	LINE 11 AIRPORT EXPRESS	1-Blue (M) 4-Yellow (M) 10- Turquoise (T) [1]	Has. Expires: 06/02/25	It does not have	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Largura (m) [2]**	**Type**
5	Platform 1	10-Turquoise	305	7	Lateral
	Platform 2	10-Turquoise	260	10	Central
	Platform 3	LINE 11 / EXPRESS EXPRESS	320		
	Platform 4	LINE 11	645	7	Lateral
	Platform 5	AIRPORT EXPRESS		6	Lateral

[1] Luz station also serves the operation of Line 10 Turquoise.

[2] The width of the platforms of the Luz station is variable. A value representative of the greatest possible extent was adopted on each platform.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

To the northwest of the station is located the Luz Complex, where a train maintenance shelter and a yard are located with 13 (thirteen) parking spaces for trains.
Luz station can be accessed from Praça da Luz (Figure 16), where the official address of the station is located, as well as Mauá and Brigadeiro Tobias streets and Prestes Maia avenue, the last two being accesses of lines 4-Yellow and 1-Blue, respectively.

Next to the access through Praça da Luz is located a building that houses the operational rooms and part of the technical rooms. This and all the buildings attached to the station, except the Museum of the Portuguese Language, and the accesses through Praça da Luz and Rua Mauá are part of an area susceptible to sharing between CPTM or its successor in the operation of Line 10 and the CONCESSIONAIRE, as described in EXHIBIT III.C – Part II. Platforms 1 and 2, that currently serve service 710, and the other accesses to the station are not part of the CONCESSION AREA.

Currently, the station is undergoing works for the construction of a tunnel that will connect concourse 2 of Luz station to Line 4-Yellow. The project also provides for the installation of two new escalators, the construction of two new fixed stairs on the central platform, the readjustment of the existing toilets in the lobby and the construction of a new access to CPTM through Cásper Líbero street.

In this station, the works of art indicated in the table below and the graffiti Outubro Rosa are installed, which will be transferred to the CONCESSIONAIRE and must be returned at the end of the CONCESSION, observing the provisions of EXHIBIT III.G.

Table 8 – Works of art at Luz station

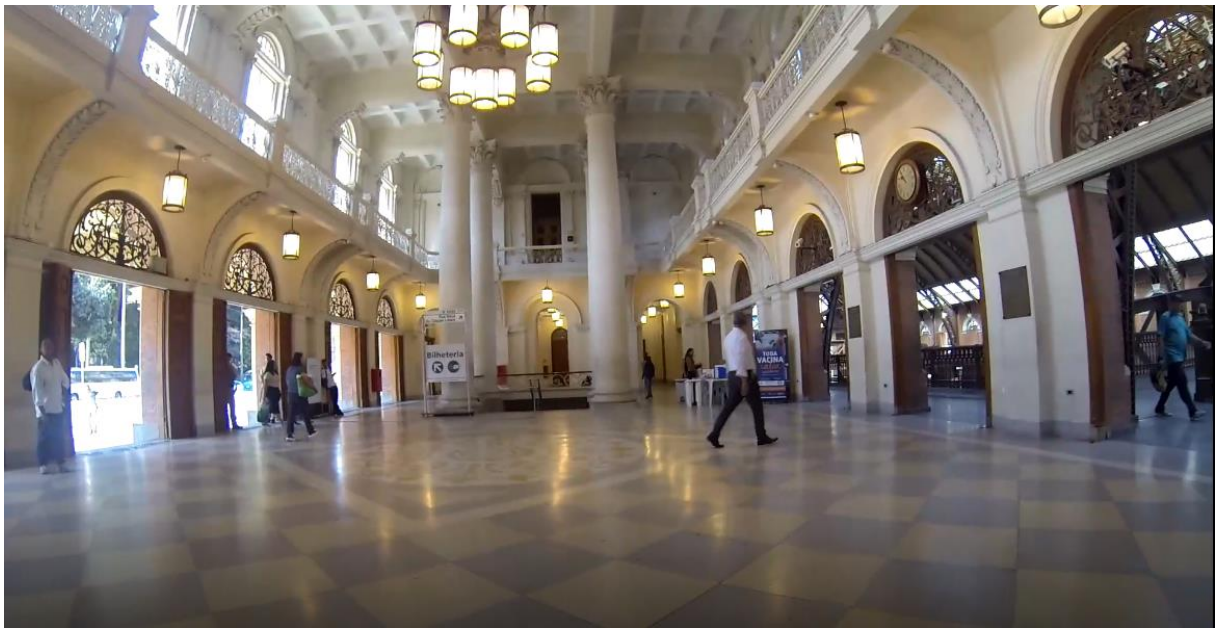
Artwork	Artist	Title	Location
Panel in high and low relief	Maria Bonomi	Epopéia Paulista	Underground circulation corridor under Rua Mauá, in the interconnection with the subway system
Engraved metal panel	Teresa Saraiva	Painel Luz	Next to the stairs to access the platforms (direction of Av. Cásper Líbero) - Concourse 2
Watercolor canvas	Diana Dorothea Danon	Luz Station, external. Aerial perspective taken from Largo Gel. Osório	-

Figure 15 - Location of Luz station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 16 – Access hall to the station through Praça da Luz



Source: TYLIN-Egis Consortium.

Figure 17 - View of platforms 2 and 3, where Line 10-Turquoise and LINE 11 operate



Source: TYLIN-Egis Consortium.

Figure 18 - View of platform 5, where the AIRPORT EXPRESS SERVICE OPERATES



Source: TYLIN-Egis Consortium.

3.3 BRÁS STATION

Brás station is part of Line 10-Turquoise, LINE 11 and LINE 12, in addition to connecting with Line 3-Red of the Metro. The 710 service and the AIRPORT EXPRESS SERVICE also operate at this station, the latter only in the direction of the Aeroporto-Guarulhos station to Palmeiras-Barra Funda. The TIC EIXO NORTE Concession provides for the extinction of service 710 when the expansion of LINE 11 to the Palmeiras-Barra Funda station is completed.

Table 9 - General characteristics of Brás station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
134.3k	LINE 11 LINE 12 AIRPORT EXPRESS	3-Red (M) 10-Turquesa (T)	Doesn't have [1]	It does not have	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Largura (m) [4]**	**Type**
8	Platform 1	10-Turquoise	257	7	Lateral
	Platforms 2 and 3	10-Turquoise [2]	314	11	Central
	Platforms 4 and 5	LINE 11 / AIRPORT EXPRESS [3]	210	11	Central
	Platforms 6 and 7	LINE 12	210	9	Central
	Platform 8	LINE 12	210	7	Lateral

[1] As for obtaining the AVCB of the Brás station, it is provided for in EST 004 ENTERPRISE.

[2] Currently, platform 3 is used by LINE 11.

[3] Currently, platform 5 does not serve any services.

[4] The width of the platforms at Brás station is variable. A value representative of the greatest possible extent was adopted on each platform.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

The station has two accesses, a larger one, to the northeast of the railroad, through the Agente Cícero square, which connects directly to the ticket office, the blockades/turnstiles and the operational buildings, and another smaller, to the southwest, through Domingos Paiva street, which accesses the end of platform 1, whose building makes up the only element of the station listed by CONDEPHAAT as a monument of historical and architectural interest.

Next to Brás station, in addition to the existing infrastructures for the station itself, there is a set of buildings that house operational, technical and infrastructure rooms of CPTM as a whole, including the Operational Control Center (CCO). This set of buildings is part of an area susceptible to sharing between CPTM and the CONCESSIONAIRE, and the management of the CCO is the responsibility of the CONCESSIONAIRE, as described in EXHIBIT III.C – Part I and Part II.

Figure 19 - Location of Brás station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 20 - Exterior view of Brás station



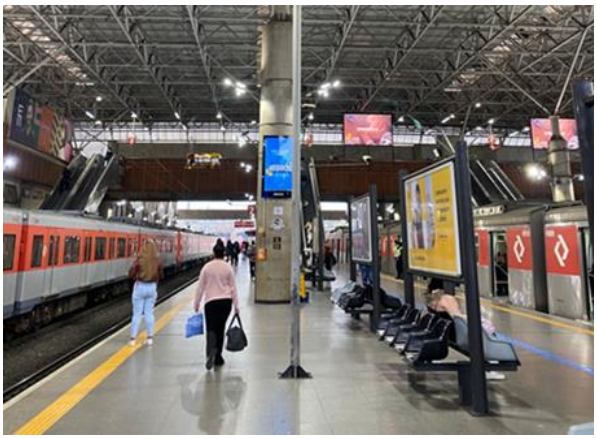
Source: TYLIN-Egis Consortium, 2023.

Figure 21 - Platform View 5



Source: TYLIN-Egis Consortium, 2023.

Figure 22 – View of platforms 6 and 7



Source: TYLIN-Egis Consortium, 2023.

Figure 23 - Platform View 8



Source: TYLIN-Egis Consortium, 2023.

3.4 TATUAPÉ STATION

The Tatuapé station is located between the Brás and Corinthians-Itaquera stations on LINE 11, between Brás and Engenheiro Goulart on LINE 12, and between Belém and Carrão on Line 3-Red of the Metro. There is a bus terminal associated with the station, which is not part of the EXISTING INFRASTRUCTURE, divided into two parts by the railroad: the Tatuapé North Metro Terminal and the Tatuapé South Metro Terminal.

Table 10 - General characteristics of the Tatuapé station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
78.4k	LINE 11 LINE 12	3-Red (M)	Has. Expiry: 17/11/25	It does not have	SPTrans (municipal) EMTU (intermunicipal)

Number of platforms	Identifier	Line/service (planned configuration for the concession)	Span (m)	Width (m)	Type
4	Platforms 1 and 3	LINE 11	240	11	Central
	Platforms 2 and 4	LINE 12	240	11	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

The body of the station is located parallel to Melo Freire and Catiguá streets. The transposition of the railroad tracks by pedestrians occurs through walkways connected to the mezzanine of the station through the unpaid area.

Figure 24 - Location of Tatuapé station



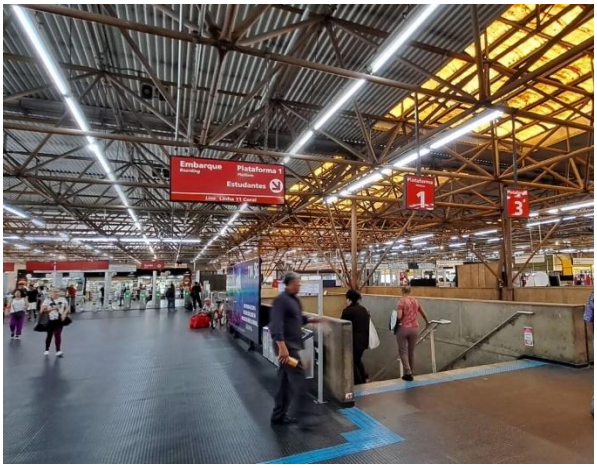
Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 25 - Exterior view of the station access walkway



Source: TYLIN-Egis Consortium, 2023.

Figure 26 - View of the lobby and the access stairs to the platform that serves LINE 11



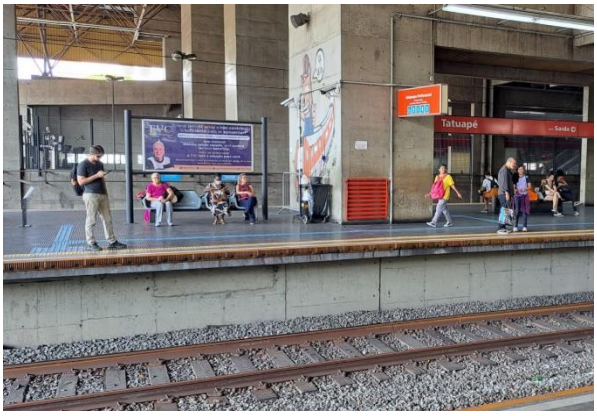
Source: TYLIN-Egis Consortium, 2023.

Figure 27 – View from platform 4



Source: TYLIN-Egis Consortium, 2023.

Figure 28 - View of platforms 1 and 3



Source: TYLIN-Egis Consortium, 2023.

3.5 CORINTHIANS-ITAQUERA STATION

The Corinthians-Itaquera station integrates an intermodal terminal that brings together, in addition to the station that serves LINE 11, the terminal station of Line 3-Red of the Metro and an SPTrans bus terminal.

Table 11 - General characteristics of the Corinthians-Itaquera station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
41.7k	LINE 11	3-Red (M)	Has. Expires: 06/09/25	It does not have	SPTrans (municipal)

Number of platforms	Identifier	Line/service (planned configuration for the concession)	Span (m)	Width (m)	Type
2	Platforms 1 and 2	LINE 11	245	11	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

To the north, Poupatempo Itaquera and Shopping Metrô Itaquera, which are not part of the EXISTING INFRASTRUCTURE, are connected to the station by a walkway, leading to the station lobby.

Figure 29 - Location of Corinthians-Itaquera station



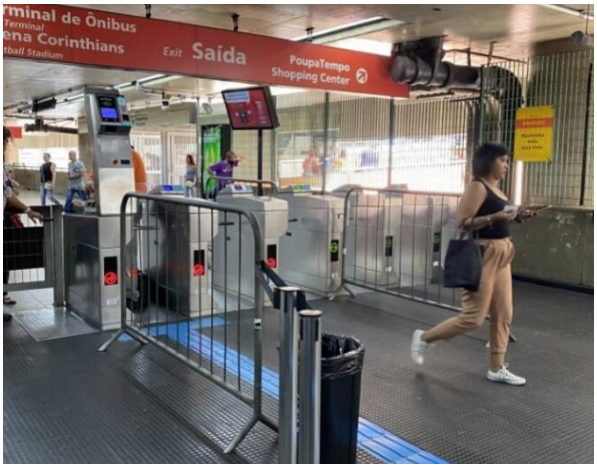
Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 30 – Integration of the Corinthians-Itaquera station to the bus terminal



Source: TYLIN-Egis Consortium, 2023.

Figure 31 – Corinthians-Itaquera station blockade line



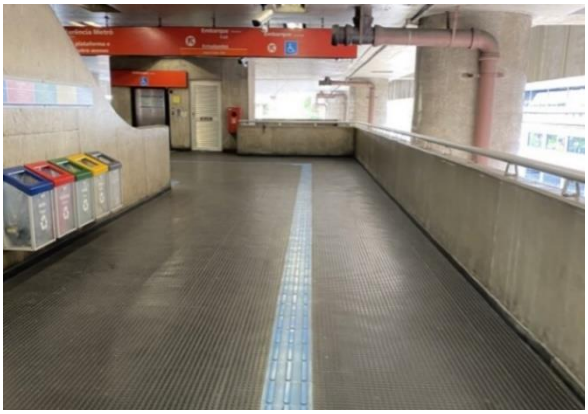
Source: TYLIN-Egis Consortium, 2023.

Figure 32 – View of platforms 1 and 2, which serve LINE 11



Source: TYLIN-Egis Consortium, 2023.

Figure 33 – Tactile route towards boarding and transfer to the metro line (3-Red)



Source: TYLIN-Egis Consortium, 2023.

3.6 DOM BOSCO STATION

The Dom Bosco station is located on Rua Sabbado D'Ângelo, in the neighborhood of the same name as the station, in the municipality of São Paulo, on the border between the neighborhoods of Itaquera and Vila Brasil. It is located between Corinthians-Itaquera and José Bonifácio stations, on LINE 11.

Table 12 - General characteristics of Dom Bosco station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
19.2k	LINE 11	No	It has. Expires: 04/29/26	8 vacancies (paracycles)	No adjacent terminal

Number of platforms	Identifier	Line/service (planned configuration for the concession)	Span (m)	Width (m)	Type
2	Platform 1	LINE 11	245	4	Lateral
	Platform 2	LINE 11	245	4	Lateral

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Its access is through a public walkway with ramps and fixed stairs, which connects Sabbado D'Ângelo (to the east) and Italina (to the west) streets, and crosses Av. Jacu-Pêssego (to the west). To the east of the station, next to Sabbado D'Ângelo Street, there is a small linear bus terminal and to the west, on Italina Street, there is a larger bus terminal with the station's public toilets, external to the main building, but maintained by the station itself. These toilets and terminals are part of the EXISTING INFRASTRUCTURE, under the responsibility of the CONCESSIONAIRE.

The platforms are equipped with fixed stairs, escalators and elevators, which connect with the lower concourse, where the locks and ticket offices are located, as well as the operating rooms. This lobby is connected to the users' access walkway. The technical rooms are located on a level below the lobby, on the ground floor, and are accessed from the lobby through restricted access by fixed stairs.

The engineering works indicated in the table below are installed at this station, which will be transferred to the CONCESSIONAIRE and must be returned at the end of the CONCESSION, observing the provisions of EXHIBIT III.G.

Table 13 – Works of art at Dom Bosco station

Artwork	Artist	Title	Location
Bronze bust	L. Galante	Don Bosco	Mezzanine - Paid area, next to SSO
Mista technique	James Concagh	Rastro Urbano	Station access corridor

Figure 34 - Location of Dom Bosco station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 35 – View of the walkway to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 36 – View of the platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 37 – Station lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 38 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.7 JOSÉ BONIFÁCIO STATION

The José Bonifácio station is located on Avenida Nagib Farah Maluf, in the neighborhood of the same name as the station, in the municipality of São Paulo. It is located between Dom Bosco and Guaianases stations, on LINE 11.

Table 14 - General characteristics of the José Bonifácio station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
17.1k	LINE 11	No	Has. Expires: 04/26/26	It does not have	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platform 1	LINE 11	240	4	Lateral
	Platform 2	LINE 11	240	4	Lateral

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Its access is directly through Nagib Farah Maluf Avenue and has an integrated bus terminal that serves the East and Northeast zones of the capital of São Paulo, as well as public restrooms with access through the free area (not paid). These toilets and the terminal are part of the EXISTING INFRASTRUCTURE, under the responsibility of the CONCESSIONAIRE.

Figure 39 - Location of José Bonifácio station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 40 – Access to the station



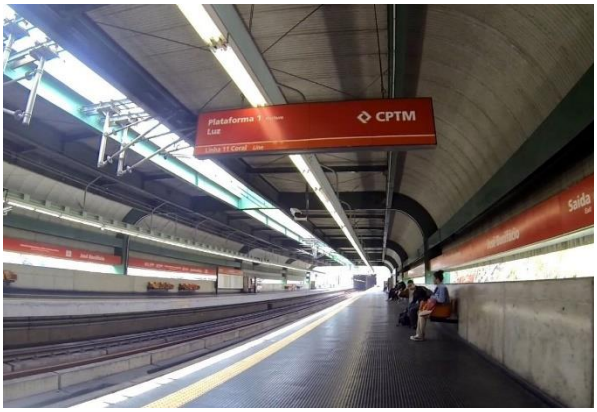
Source: TYLIN-Egis Consortium, 2023.

Figure 41 – Station lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 42 – View from the station platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 43 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.8 GUAIANASES STATION

The Guaianases station is located in the homonymous neighborhood, in the extreme east of the city of São Paulo. This station is currently the terminal of the Luz-Guaianases service of LINE 11, also serving the Luz-Estudantes service.

Table 15 - General characteristics of Guaianases station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
73.5k	LINE 11	No	Has. Expiry: 06/10/25	It does not have	SPTrans (municipal) EMTU (intermunicipal)
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
4	Platforms 1 and 2	LINE 11	240	8	Central
	Platforms 3 and 4	LINE 11	240	8	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

There is a bus terminal on the south side (between Salvador Gianetti and Hipólito de Camargo streets) and one on the north side (next to Copenhagen street), as well as public toilets in each of these terminals. These toilets and bus terminals are part of the EXISTING INFRASTRUCTURE, under the responsibility of the CONCESSIONAIRE.

Figure 44 - Location of Guaianases station



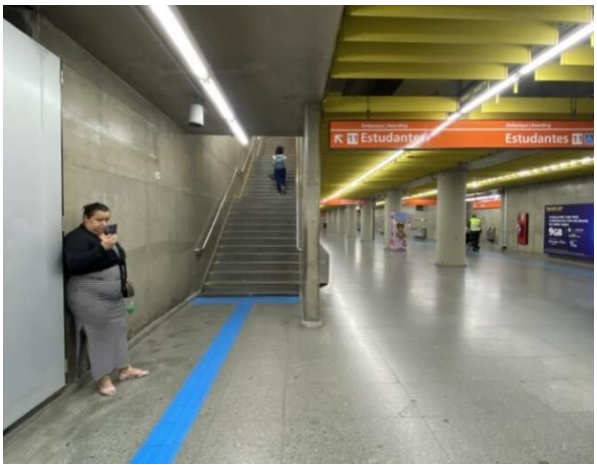
Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 45 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 46 – Station lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 47 – View from the station platform



Source: TYLIN-Egis Consortium, 2023.

Figure 48 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.9 ANTÔNIO GIANETTI NETO STATION

The Antônio Gianetti Neto station is located in Ferraz de Vasconcelos, near the border of the municipality with the city of São Paulo (district of Guaianases). It is located between the neighborhoods of Vila Santo Antônio, to the north of the railroad and Parque São Francisco, to the south.

Table 16 - General characteristics of the Antônio Gianetti Neto station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
14.5k	LINE 11	No	It does not have	It does not have	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platform 1	LINE 11	244	6	Lateral
	Platform 2	LINE 11	244	5	Lateral

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 49 - Location of Antônio Gianetti Neto station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 50 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 51 – Line of locks



Source: TYLIN-Egis Consortium, 2023.

Figure 52 – View from the station platform



Source: TYLIN-Egis Consortium, 2023.

Figure 53 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.10 FERRAZ DE VASCONCELOS STATION

The Ferraz de Vasconcelos station is located in Praça da Independência, in the center of the homonymous municipality. It is located between the Poá and Antônio Gianetti Neto stations of LINE 11.

Table 17 - General characteristics of Ferraz de Vasconcelos station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
26.4k	LINE 11	No	Has. Expires: 04/22/26	136 (bike rack)	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 11	190	10	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

The body of the station is located parallel to Godofredo Osório Novaes Street and Marginal Zilda Arns Avenue, and the transposition of the railroad tracks by pedestrians occurs through an existing reinforced concrete walkway, physically linked to the station. In the southeast portion of the station, access is located at Praça da Independência and occurs through a fixed stairs, escalator and elevator, which lead to the railroad crossing until it reaches the lobby. Around the square there are several commercial and service establishments, and there is a large movement of people in the adjacent streets. There is a police station installed in the square.

Also in the southeast portion of the station, there is a bike rack operated by CPTM with independent access, which integrates the EXISTING INFRASTRUCTURE

In the northeastern portion of the railroad there is another access through a fixed stairs, escalator and elevator, which leads to the footbridge that serves as a transposition of the railway line and reaches the concourse. In this place there is a taxi and bus stop, as well as several commercial and service establishments.

The platforms are equipped with elevators, fixed stairs and escalators that connect with the upper concourse, where the locks and ticket offices are located. This lobby is connected to the users' access walkway.

Figure 54 - Location of Ferraz de Vasconcelos station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 55 – View of the walkway to the station



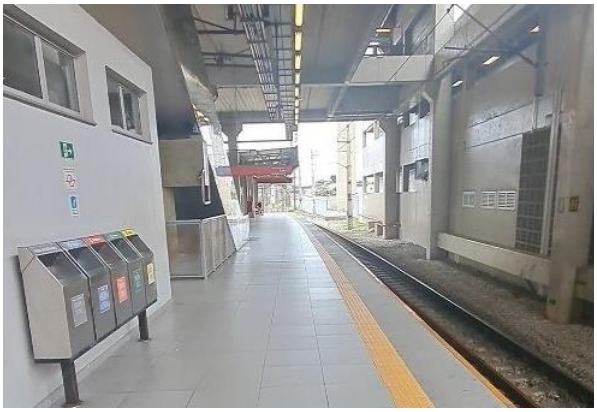
Source: TYLIN-Egis Consortium, 2023.

Figure 56 – Station lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 57 – View from the station platform



Source: TYLIN-Egis Consortium, 2023.

Figure 58 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.11 POÁ STATION

The Poá station is located in the center of the homonymous municipality. It is located between Ferraz de Vasconcelos and Calmon Viana stations on LINE 11.

Table 18 - General characteristics of the Poá station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
13.1k	LINE 11	No	Yes. Expires: 09/11/24	60 (bike rack)	No adjacent terminal

Number of platforms	Identifier	Line/service (planned configuration for the concession)	Span (m)	Width (m)	Type
2	Platform 1	LINE 11	260	3,5	Lateral
	Platform 2	LINE 11	260	3,5	Lateral

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

To the north of the railroad there is an elevator with a fixed side staircase that connects the bike rack, which is part of the EXISTING INFRASTRUCTURE, and the access from Herculano Duarte Ribas street to the walkway that serves as a transposition of the railway line and reaches the station lobby.

Figure 59 - Location of Poá station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 60 – Access road to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 61 – Line of locks



Source: TYLIN-Egis Consortium, 2023.

Figure 62 – View from the station platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 63 – Platform coverage



Source: TYLIN-Egis Consortium, 2023.

3.12 CALMON VIANA STATION

The Calmon Viana station is located in the municipality of Poá, near the border with Suzano. It is located between the neighborhoods of Calmon Viana, to the south of the railroad, and Vila Bandeirantes, to the north. It is served by LINE 11 and LINE 12, being the terminal of the latter. Near the station, to the northwest of it, is located the Calmon Viana maintenance base, a support area used for the maintenance of fixed systems and for parking auxiliary vehicles, which is part of the EXISTING INFRASTRUCTURE.

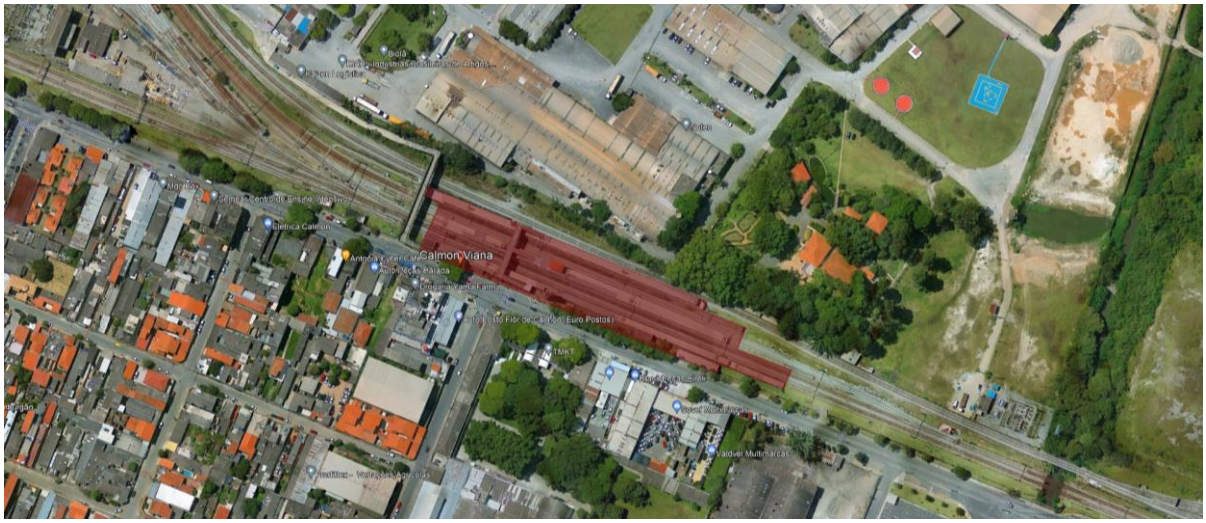
Table 19 - General characteristics of Calmon Viana station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
8.6k	LINE 11 LINE 12	No	Yes. Expires: 09/27/25	84 (bike rack)	No adjacent terminal

Number of platforms	Identifier	Line/service (planned configuration for the concession)	Span (m)	Width (m)	Type
4	Platform 1	LINE 11	200	3,5	Lateral
	Platform 2	LINE 11	210	6,3	Central
	Platform 3	LINE 12			
	Platform 4	LINE 12	180	5,0	Lateral

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 64 - Location of Calmon Viana station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

The station has a single south-facing access concourse of the railway, which connects directly to the ticket office, the locks and the operational buildings. Still to the south of the station, there is a bike rack with independent access, which is part of the EXISTING INFRASTRUCTURE.

On the central platform, there is a listed building where the cleaning and material rooms are located (Figure 69 and Figure 70). Platform 4 is currently inoperative.

Figure 65 – Access road to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 66 – View from the central platforms



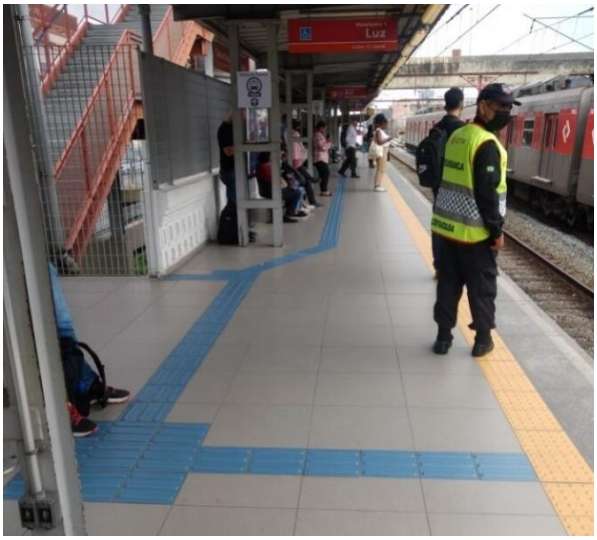
Source: TYLIN-Egis Consortium, 2023.

Figure 67 – View from the side platform of the station



Source: TYLIN-Egis Consortium, 2023.

Figure 68 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

Figure 69 – Listed building located on the central platform



Source: TYLIN-Egis Consortium, 2023.

Figure 70 – View of the listed building located on the central platform



Source: TYLIN-Egis Consortium, 2023.

3.13 SUZANO STATION

Suzano station is located in the central region of the homonymous municipality. It is located between the Calmon Viana and Jundiapeba stations of LINE 11. It has a bicycle rack with 576 spaces, an attached technical and operational building and a walkway to transpose the railway in a non-paid area, open 24 hours, which are part of the EXISTING INFRASTRUCTURE.

Table 20 - General characteristics of Suzano station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
39.0k	LINE 11 LINE 12 (future)	No	Yes. Expires: 06/03/26	576 (bike rack)	Radial Transport (municipal) EMTU (intermunicipal)
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
4	Platforms 1 and 2	LINE 12 [1]	190	8,4	Central
	Platforms 3 and 4	LINE 11	190	8,4	Central

[1] Currently, platforms 1 and 2 serve LINE 11.

[2] Currently, platforms 3 and 4 do not serve any services.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

To the north of the railroad, the station connects with the Suzano Municipal Bus Terminal, which is not part of the EXISTING INFRASTRUCTURE.

Figure 71 - Suzano Station Location



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 72 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 73 – Station lobby



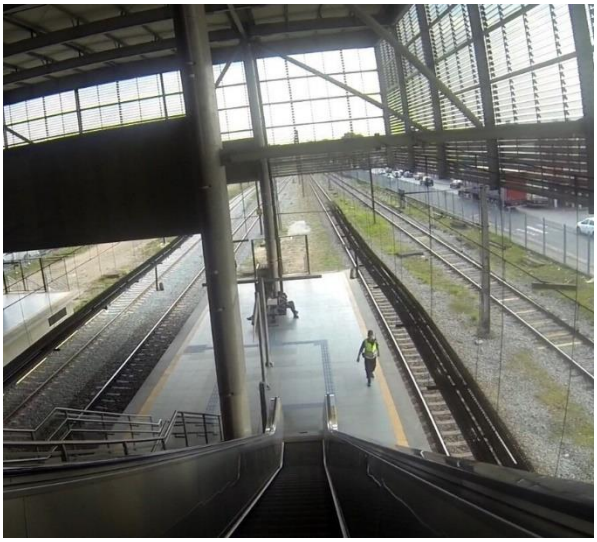
Source: TYLIN-Egis Consortium, 2023.

Figure 74 – Line of station locks



Source: TYLIN-Egis Consortium, 2023.

Figure 75 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.14 JUNDIAPEBA STATION

The Jundiapeba station is located in the homonymous neighborhood in the municipality of Mogi das Cruzes, near the border with the municipality of Suzano. It is the only station of the old network of the Central Railroad of Brazil that preserves its original building.

Table 21 - General characteristics of Jundiapeba station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
7.5k	LINE 11	No	It does not have	It does not have	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platform 1	LINE 11	239	3,8	Lateral
	Platform 2	LINE 11	238	3.6 [1]	Lateral

[1] An extension of approximately 40 meters has a width of only 1.8 meters.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

On land adjacent to the station and to the north of it is located the Jundiapeba washer, an area dedicated to both washing and parking trains (5 spots), which is part of the EXISTING INFRASTRUCTURE.

Figure 76 - Location of Jundiapeba station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 77 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 78 – Line of locks



Source: TYLIN-Egis Consortium, 2023.

Figure 79 – View from the station platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 80 – Level crossing



Source: TYLIN-Egis Consortium, 2023.

3.15 BRAZ CUBAS STATION

The Braz Cubas station is located in the homonymous neighborhood in the municipality of Mogi das Cruzes, between the Jundiapeba and Mogi das Cruzes stations of LINE 11.

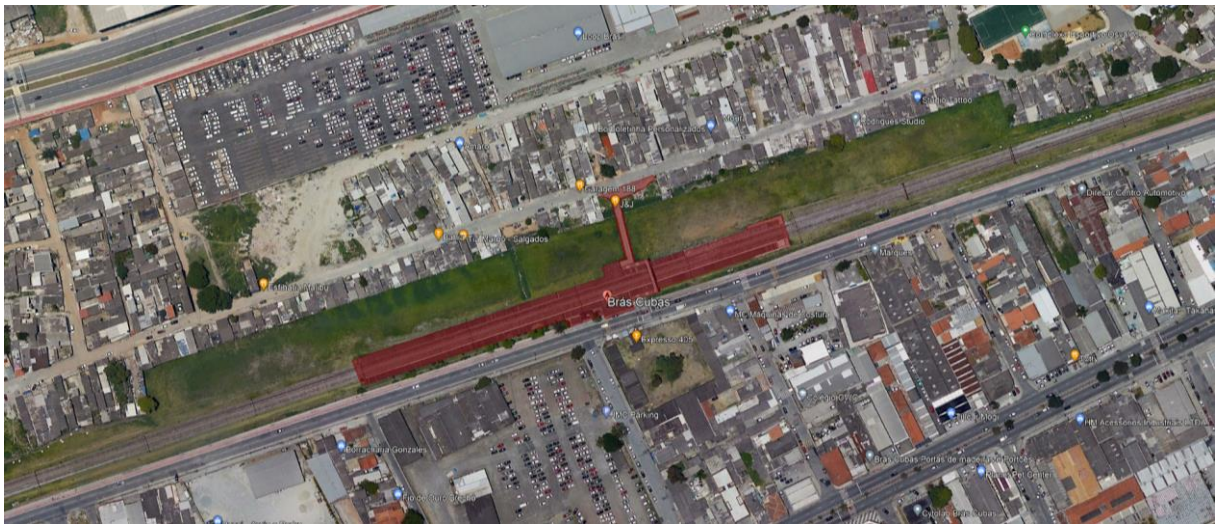
Table 22 - General characteristics of the Braz Cubas station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
7.9k	LINE 11	No	It does not have	It does not have	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platform 1	LINE 11	260	4.6 [1]	Lateral
	Platform 2	LINE 11	260	3,6	Lateral

[1] An extension of approximately 110 meters has a width of 3.9 meters.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 81 - Location of Braz Cubas station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 82 – Station façade



Source: TYLIN-Egis Consortium, 2023.

Figure 83 – Line of locks



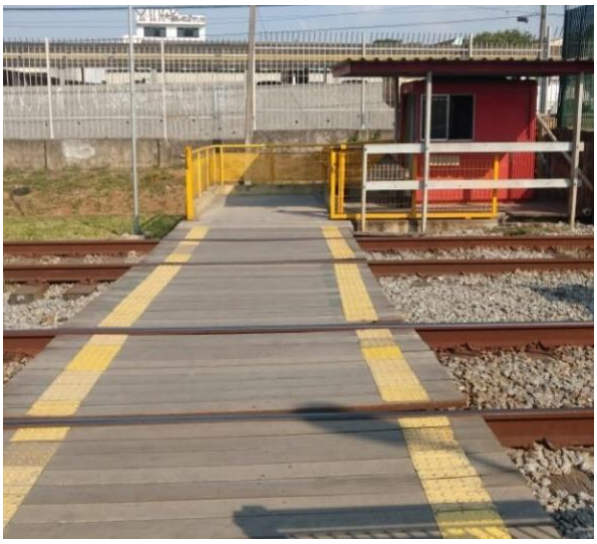
Source: TYLIN-Egis Consortium, 2023.

Figure 84 – View from the station platform



Source: TYLIN-Egis Consortium, 2023.

Figure 85 – Level crossing



Source: TYLIN-Egis Consortium, 2023.

3.16 MOGI DAS CRUZES STATION

The Mogi das Cruzes station is located in the center of the homonymous municipality, located in the extreme east of the RMSP.

Table 23 - General characteristics of Mogi das Cruzes station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
11.8k	LINE 11	No	It does not have	10 (Paracycles)	Mogi Mob / Princesa do Norte (municipal)
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
5	Platform A	TOURIST EXPRESS	230	4,5	Lateral
	Platform B	TOURIST EXPRESS	250	5,5	Lateral
	Platform 1	LINE 11	269	4,7	Lateral
	Platforms 2 and 3	LINE 11	250	3,5	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Platforms A and B function as train parking lots and serve the TOURIST EXPRESS. Although the CONCESSIONAIRE is not responsible for the operation of the TOURIST EXPRESS, platforms A and B are part of the EXISTING INFRASTRUCTURE.

Additionally, there is a small maintenance base attached to this station and a set of auxiliary roads to the north of those mentioned above, as well as a building subject to listing by the City Hall, Figure 88, which are part of the EXISTING INFRASTRUCTURE.

The engineering works indicated in the table below are installed at this station, which will be transferred to the CONCESSIONAIRE and must be returned at the end of the CONCESSION, observing the provisions of EXHIBIT III.G.

Table 24 – Works of art at Mogi das Cruzes station

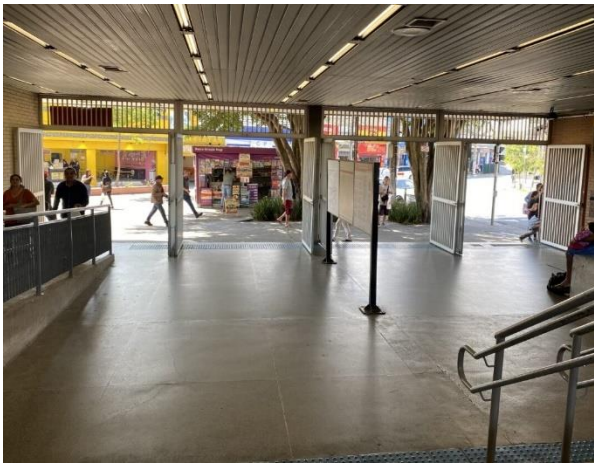
Artwork	Artist	Title	Location
Bronze plaque	Unknown	Plaque with bust of the Baron of Mauá and Dr. Pedro Ernesto Baptista	Station entrance hall
Graffiti panel	Claudio Ise	Japanese Culture	Lobby - Paid area (near the locks)

Figure 86 - Location of Mogi das Cruzes station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 87 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 88 – Listed building



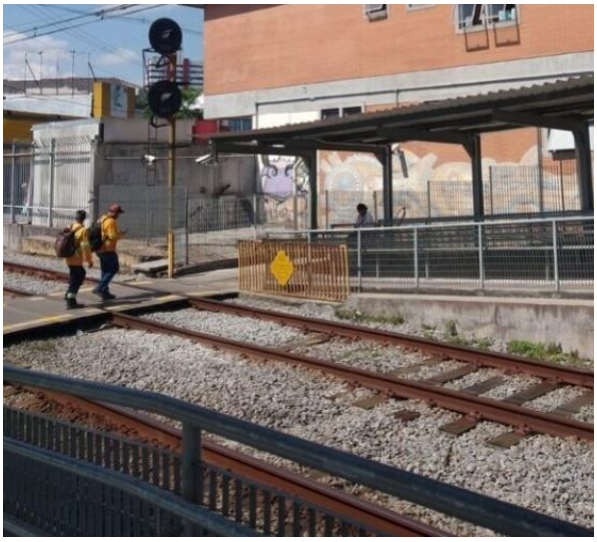
Source: TYLIN-Egis Consortium, 2023.

Figure 89 – View from the platform and walkway



Source: TYLIN-Egis Consortium, 2023.

Figure 90 – Level crossing



Source: TYLIN-Egis Consortium, 2023.

3.17 ESTUDANTES STATION

The Estudantes station has a connection with the Estudantes Terminal, the Geraldo Scavone Bus Terminal and Mogi Shopping, which are not part of the EXISTING INFRASTRUCTURE. In addition, there is a public walkway immediately over the station, which connects its two accesses and serves as a transposition for the public that transits between the terminals, the mall and the nearby universities. This walkway is part of the EXISTING INFRASTRUCTURE.

Table 25 - General characteristics of the estudantes station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
14.5k	LINE 11	No	It does not have	It does not have	Mogi Mob / Princesa do Norte (municipal) EMTU (intermunicipal) Artesp (highway)
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
5	Platform 1	LINE 11	240	5	Lateral
	Platforms 2 and 3	LINE 11	240	5	Central
	Platform 4	LINE 11	240	5	Lateral

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 91 - Location of the Estudantes station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 92 – Turnstile and line of station locks



Source: TYLIN-Egis Consortium, 2023.

Figure 93 –Box office



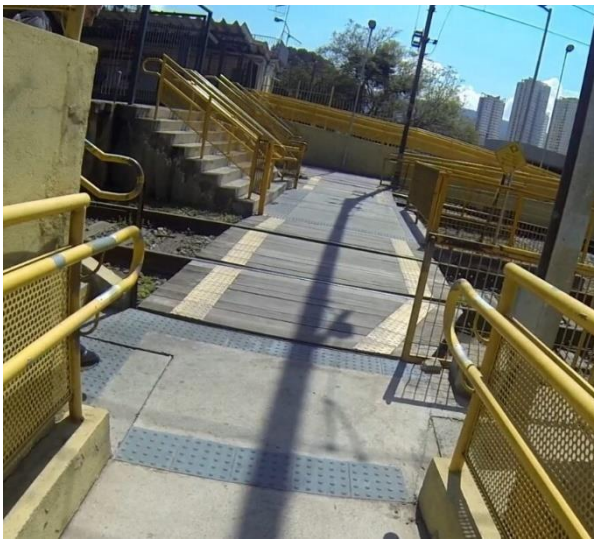
Source: TYLIN-Egis Consortium, 2023.

Figure 94 – View from the central platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 95 – Level crossing



Source: TYLIN-Egis Consortium, 2023.

3.18 ENGENHEIRO GOULART STATION

The Engenheiro Goulart station is located on Avenida Dr. Assis Ribeiro, in the neighborhood of Cangaíba, in the municipality of São Paulo. This station serves LINE 12 and LINE 13. To the north of it is located the Engenheiro Goulart yard, with two spaces available for parking, which is part of the EXISTING INFRASTRUCTURE.

Table 26 - General characteristics of the Engenheiro Goulart station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
7.6k	LINE 12 LINE 13	No	Yes. Expiry: 20/09/24	274 (2 bike racks)	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
4	Platforms 1 and 2	LINE 12	190	10,0	Central
	Platforms 3 and 4	LINE 13	190	10,0	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

To the north of the railroad, the station is accessed from the Tietê Ecological Park, which is not part of the EXISTING INFRASTRUCTURE.

Figure 96 - Location of Engenheiro Goulart station



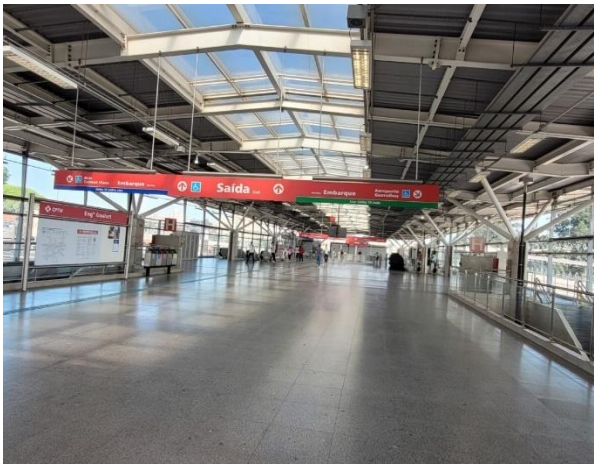
Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 97 – View of the walkway to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 98 – Station lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 99 – Internal view of the walkway



Source: TYLIN-Egis Consortium, 2023.

Figure 100 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.19 USP LESTE STATION

The USP Leste station is located on Avenida Dr. Assis Ribeiro, in Ermelino Matarazzo, in the municipality of São Paulo. It is located between the Engenheiro Goulart and Comendador Ermelino stations. The body of the station is located parallel to Avenida Dr. Assis Ribeiro to the south and adjacent to the *campus* of USP Leste, to the north.

Table 27 - General characteristics of the USP Leste station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
6.4k	LINE 12	No	16/01/26	270 (bike rack)	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 12	170	8,5	Central

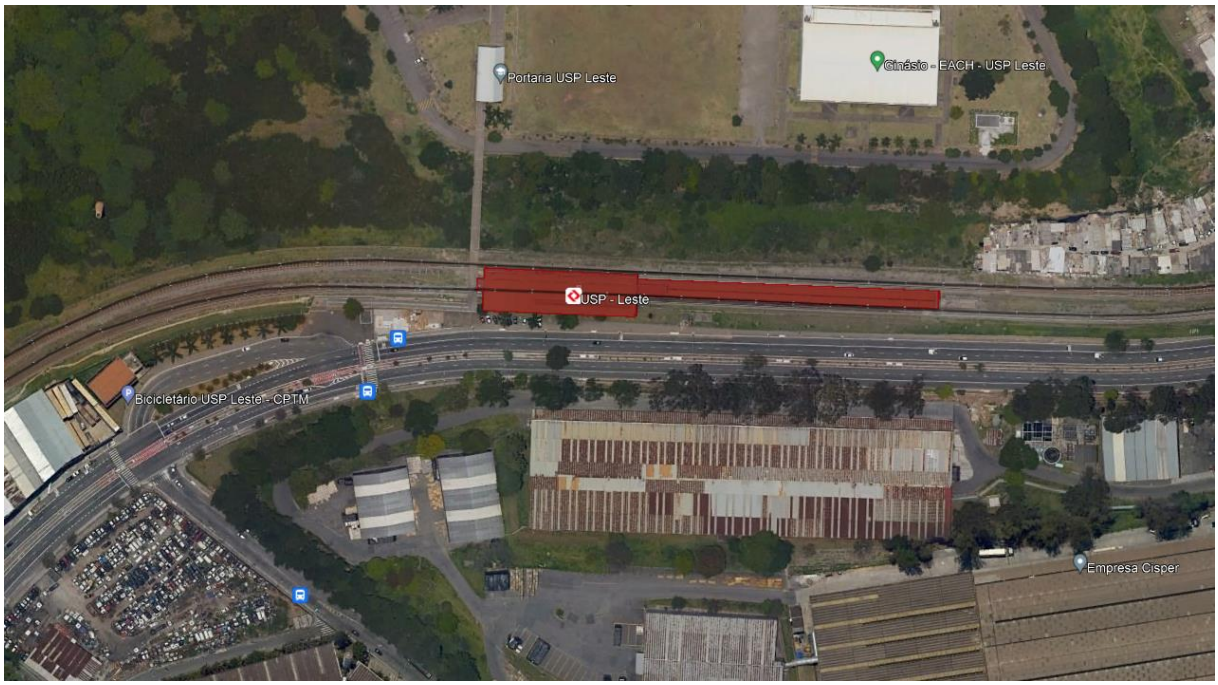
Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

The access to the North through a walkway, which is not part of the EXISTING INFRASTRUCTURE and is therefore not the responsibility of the CONCESSIONAIRE, is located within the campus of USP Leste. However, the section of this footbridge that connects the entrance to the USP Leste station to Avenida Dr. Assis Ribeiro is the responsibility of CPTM, and this operation, maintenance and surveillance is responsible. For this division and sharing, an Agreement was signed between CPTM and USP (Appendix 2), with USP being responsible for the operation, maintenance and surveillance of the section of the walkway that connects the entrance to the USP Leste station to entrance No. 3 of the USP Capital Campus of the East Area, including the access stairs and the elevator. The obligations of CPTM contained in the aforementioned agreement will be assigned to the CONCESSIONAIRE as of the COMMERCIAL OPERATION, and for this purpose the treatment contained in item 10 of this EXHIBIT. In this station, the work of art indicated in the table below is installed, which will be transferred to the CONCESSIONAIRE and must be returned at the end of the CONCESSION, observing the provisions of EXHIBIT III.G.

Table 28 – Work of art at USP Leste station

Artwork	Artist	Title	Location
Tile painting	Young people participants in the Azu project	-	Lobby - Paid area (near the locks)

Figure 101 - Location of USP Leste station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 102 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 103 – Station lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 104 – View of the platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 105 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.20 COMENDADOR ERMELINO STATION

The Comendador Ermelino station is located on Avenida Dr. Assis Ribeiro, in Ermelino Matarazzo, in the municipality of São Paulo. It is located between USP Leste and São Miguel Paulista stations.

Table 29 - General characteristics of Comendador Ermelino station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
8.5k	LINE 12	No	Has. Expires: 08/30/25	196 (bike rack)	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 12	170	8,5	Central

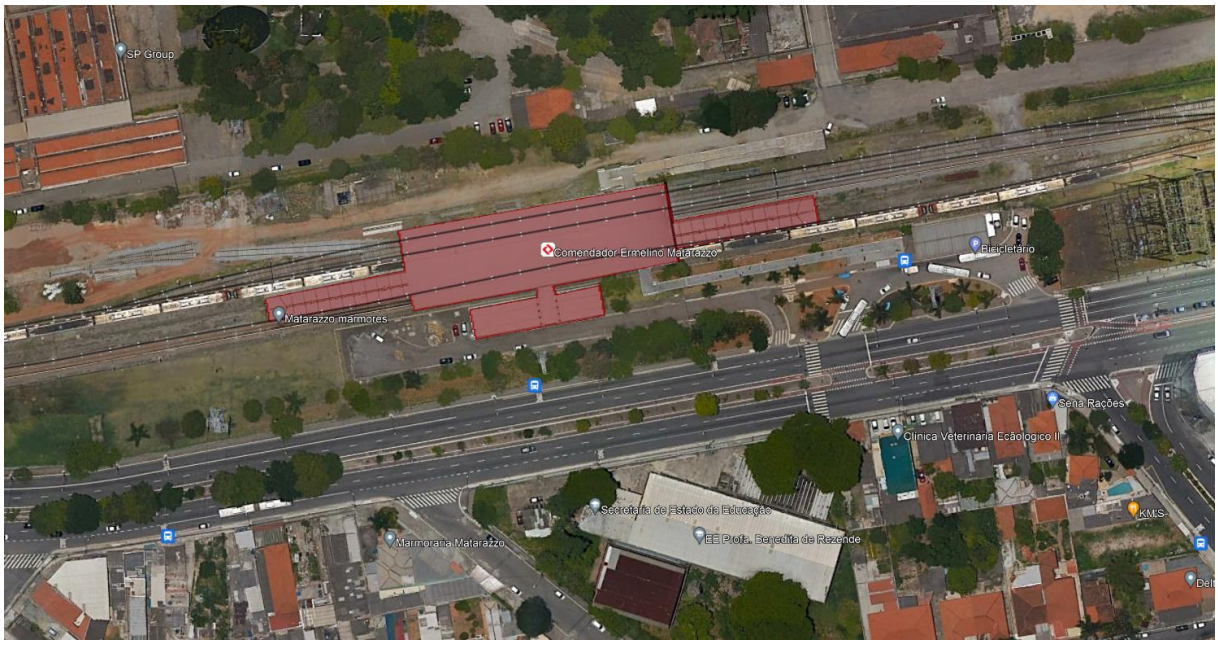
Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

In this station, the work of art indicated in the table below is installed, which will be transferred to the CONCESSIONAIRE and must be returned at the end of the CONCESSION, observing the provisions of EXHIBIT III.G.

Table 30 – Work of art at Comendador Ermelino station

Artwork	Artist	Title	Location
Tile painting	Young participants in the Azu project	-	Lobby - Paid area (near the locks)

Figure 106 - Location of Comendador Ermelino station



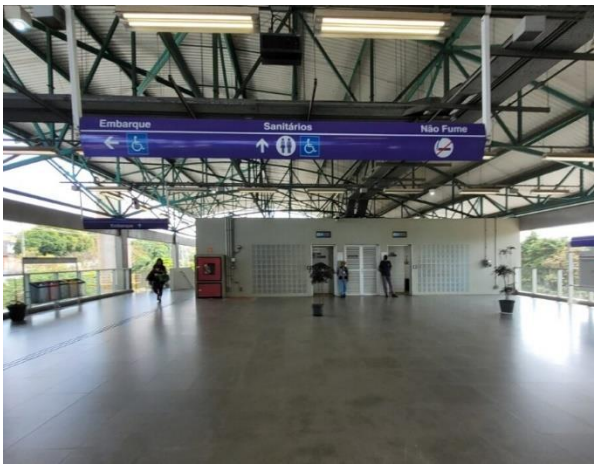
Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 107 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 108 – Lobby and access to public toilets



Source: TYLIN-Egis Consortium, 2023.

Figure 109 – View of the platforms

Figure 110 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.



Source: TYLIN-Egis Consortium, 2023.

3.21 SÃO MIGUEL PAULISTA STATION

The São Miguel Paulista station is located on Rua Beraldo Marcondes, in the neighborhood of the same name as the station, in the municipality of São Paulo. It is located between the Comendador Ermelino and Jardim Helena-Vila Mara stations.

Table 31 - General characteristics of São Miguel Paulista station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
17.6k	LINE 12	No	Has. Expires: 06/03/26	208 (bike rack)	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 12	190	10	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 111 - Location of São Miguel Paulista station



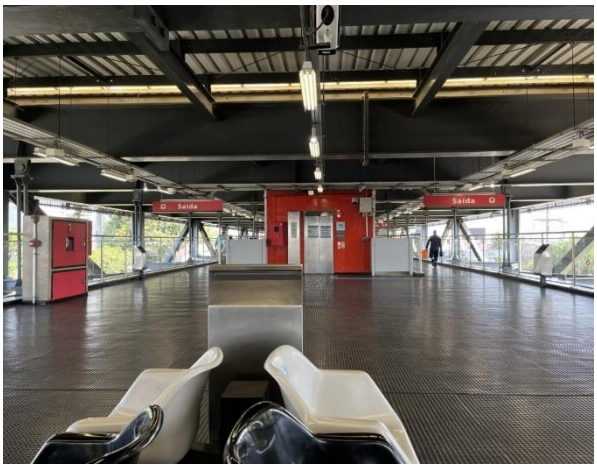
Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 112 – Station bike rack



Source: TYLIN-Egis Consortium, 2023.

Figure 113 –Lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 114 – View of the platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 115 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.22 JARDIM HELENA-VILA MARA STATION

The Jardim Helena-Vila Mara station is located on Rua São Gonçalo do Rio das Pedras, in the municipality of São Paulo. It is located between São Miguel Paulista and Itaim Paulista stations.

Table 32 - General characteristics of the Jardim Helena-Vila Mara station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
15.7k	LINE 12	No	Has. Expiry: 30/10/25	256 (bike rack)	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 12	170	8	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 116 - Location of Jardim Helena-Vila Mara station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 117 – Walkway to access the station



Source: TYLIN-Egis Consortium, 2023.

Figure 118 –Lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 119 – View of the platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 120 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.23 ITAIM PAULISTA STATION

The Itaim Paulista station is located in the homonymous district in the city of São Paulo. It is located between the Jardim Helena-Vila Mara and Jardim Romano stations.

Table 33 - General characteristics of Itaim Paulista station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
29.9k	LINE 12	No	Has. Expiry: 20/06/26	256 (bike rack)	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 12	180	8,5	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

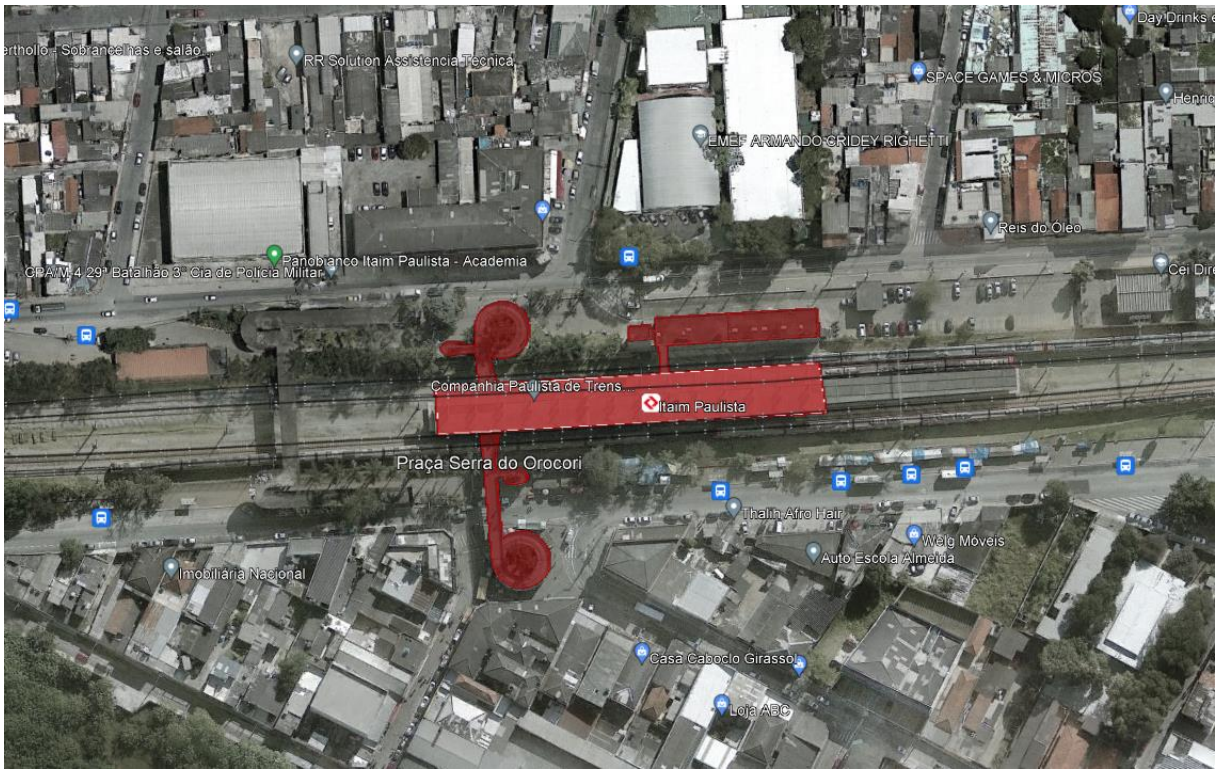
The station has four surface tracks, two main and two auxiliary for train parking, with the availability of four spaces, which are part of the EXISTING INFRASTRUCTURE.

In this station, the work of art indicated in the table below is installed, which will be transferred to the CONCESSIONAIRE and must be returned at the end of the CONCESSION, observing the provisions of EXHIBIT III.G.

Table 34 – Work of art at Itaim Paulista station

Artwork	Artist	Title	Location
Oil on canvas	Adneia Batatinha dos Santos	Artistic Mural Chapel of St. Michael the Archangel	-

Figure 121 - Location of Itaim Paulista station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 122 – Walkway to access the station



Source: TYLIN-Egis Consortium, 2023.

Figure 123 –Lobby



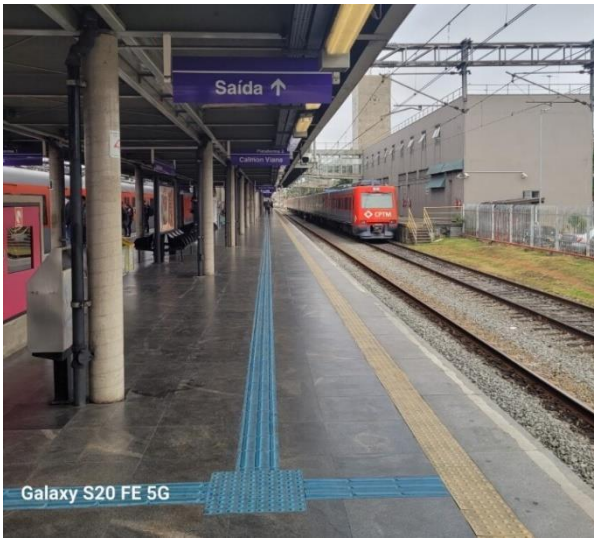
Source: TYLIN-Egis Consortium, 2023.

Figure 124 – Platform view



Source: TYLIN-Egis Consortium, 2023.

Figure 125 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.24 JARDIM ROMANO STATION

The Jardim Romano station is located on Rua José Alvares Moreira in the municipality of São Paulo, in the district of Jardim Helena. It is located between the Itaim Paulista and Engenheiro Manoel Feio stations.

Table 35 - General characteristics of the Jardim Romano station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
19.2k	LINE 12	No	Has. Expiry: 07/07/25	240 (bike rack)	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 12	162	8,4	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 126 - Location of Jardim Romano station



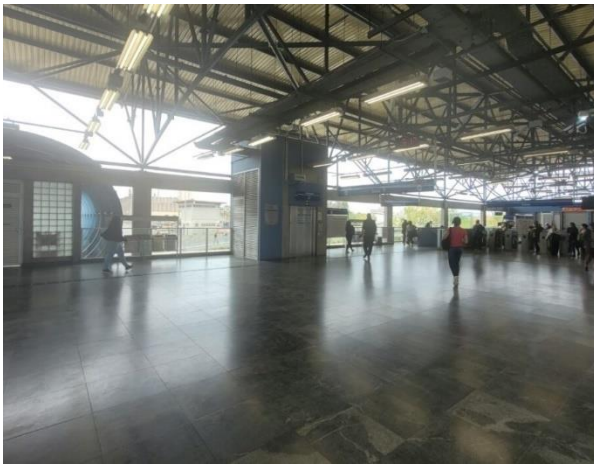
Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 127 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 128 –Lobby



Source: TYLIN-Egis Consortium, 2023.

Figure 129 – Platform view



Source: TYLIN-Egis Consortium, 2023.

Figure 130 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.25 ENGENHEIRO MANOEL FEIO STATION

The Engenheiro Manoel Feio station is located near the Vila Gepina and Jardim da Estação neighborhoods, in the municipality of Itaquaquecetuba, next to the southern floodplain of the Tietê River and about 2 km west of the center of the municipality. It is located between the Jardim Romano and Itaquaquecetuba stations of LINE 12. Next to the station is located the Engenheiro Manoel Feio yard, which has 9 (nine) parking spaces for passenger trains and is part of the EXISTING INFRASTRUCTURE.

Table 36 - General characteristics of the Engenheiro Manoel Feio station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
8.4k	LINE 12	No	It does not have	260 (bike rack)	Planalto Express (municipal) EMTU (intermunicipal)
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
3	Platform 1	LINE 12	282	4,0	Lateral
	Platforms 2 and 3	LINE 12	189	4,5	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

The body of the station is located next to Eldorado Avenue, in front of Juscelino Kubitschek Square and the Engenheiro Manoel Feio urban terminal, which are not part of the EXISTING INFRASTRUCTURE.
To the north of the station there is an MRS freight rail yard interconnected to an important logistics rail junction, which is not part of the EXISTING INFRASTRUCTURE. MRS, in order to access a steel shed,

located southwest of this station on the opposite side of the aforementioned freight rail yard, needs to cross the operational tracks of LINE 12.

Figure 131 - Location of Engenheiro Manoel Feio station

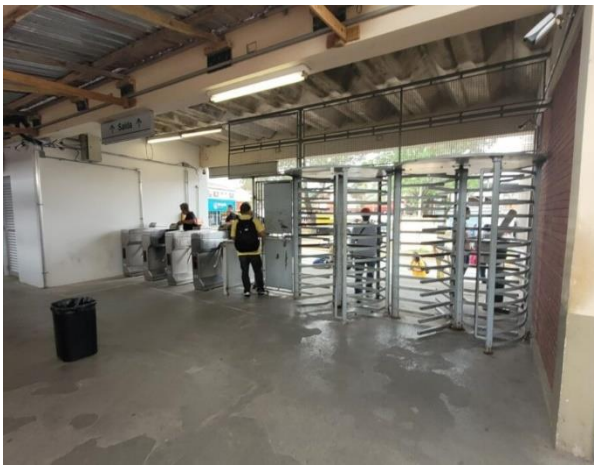


Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 132 – Access to the station



Figure 133 – Line of locks and turnstiles



Source: TYLIN-Egis Consortium, 2023.

Figure 134 – View of the platform (under construction)



Source: TYLIN-Egis Consortium, 2023.

Figure 135 – View from the central platforms



Source: TYLIN-Egis Consortium, 2023.

3.26 ITAQUAQUECETUBA STATION

The Itaquaquecetuba station is located in the homonymous municipality, located east of the RMSP, between the Engenheiro Manoel Feio and Aracaré stations.

Table 37 - General characteristics of the Itaquaquecetuba station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
19.4k	LINE 12	No	It does not have	It does not have	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 12	208	8,0	Central

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 136 - Location of Itaquaquecetuba station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 137 – View of the walkway to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 138 – Line of locks



Source: TYLIN-Egis Consortium, 2023.

Figure 139 – View from the platform (towards Brás)



Source: TYLIN-Egis Consortium, 2023.

Figure 140 – View from the platform (towards Calmon Viana)



Source: TYLIN-Egis Consortium, 2023.

3.27 ARACARÉ STATION

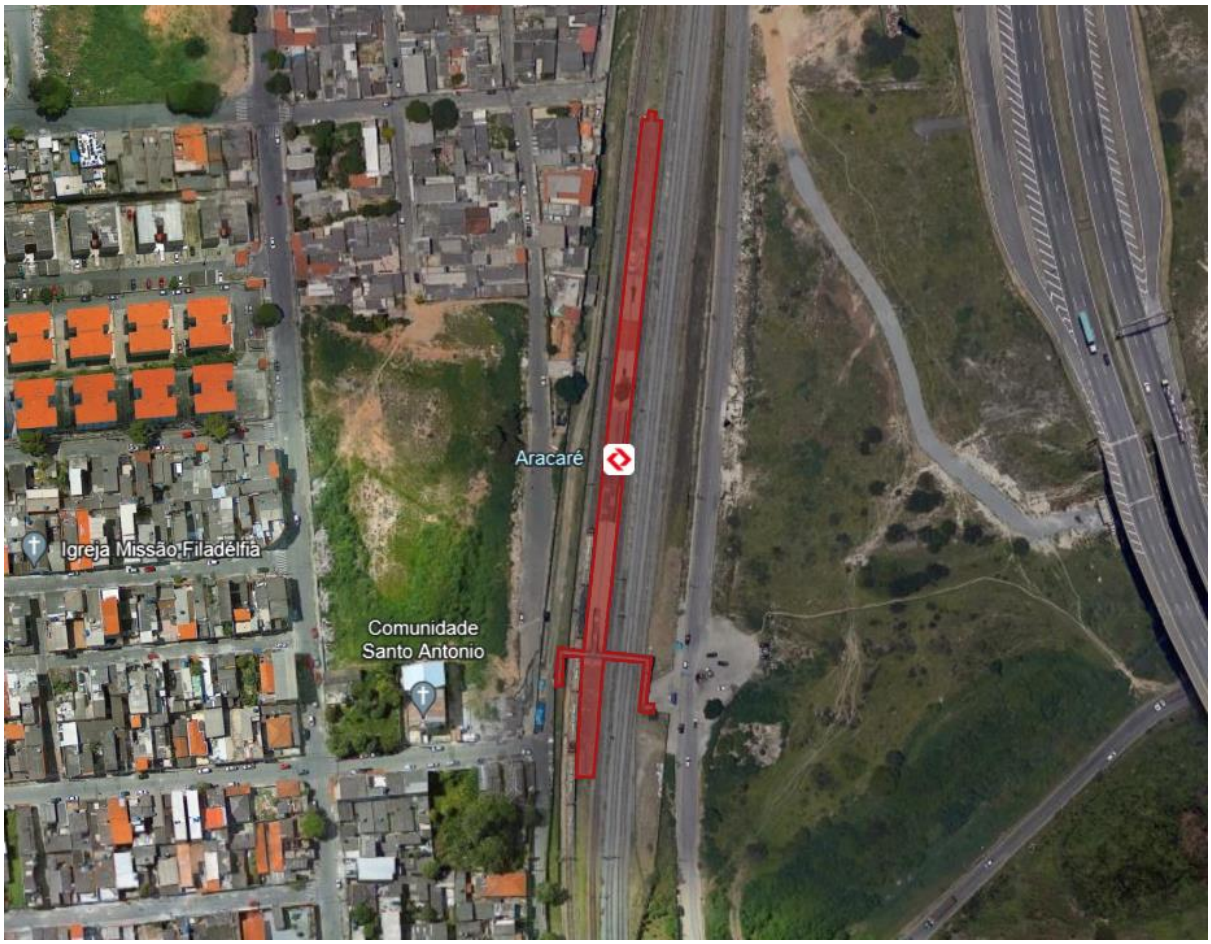
The Aracaré station is located in the municipality of Itaquaquecetuba, in the Jardim Santo Antônio subdistrict, next to the floodplain of the Tietê River and about 3.5 km south of the center of the municipality. It is located between the Itaquaquecetuba and Calmon Viana stations of LINE 12.

Table 38 - General characteristics of the Aracaré station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
6.7k	LINE 12	No	It does not have	It does not have	No adjacent terminal
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 12	255	8,0	Central

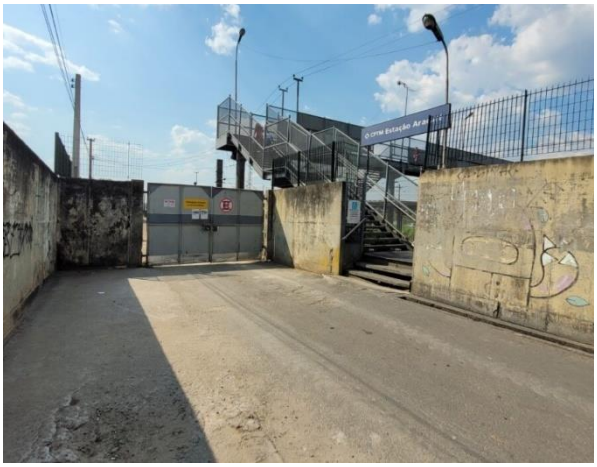
Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 141 - Location of Aracaré station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 142 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 143 – Ticket office and self-service totem



Source: TYLIN-Egis Consortium, 2023.

Figure 144 – View from the platform (towards Brás)



Source: TYLIN-Egis Consortium, 2023.

Figure 145 – View from the platform (towards Calmon Viana)



Source: TYLIN-Egis Consortium, 2023.

3.28 GUARULHOS CECAP STATION

The Guarulhos Cecap station is located on Avenida Natália Zarif, in the Parque Cecap neighborhood, in the municipality of Guarulhos. It is located between the Engenheiro Goulart and Aeroporto-Guarulhos stations. It serves both LINE 13 and the AIRPORT EXPRESS SERVICE.

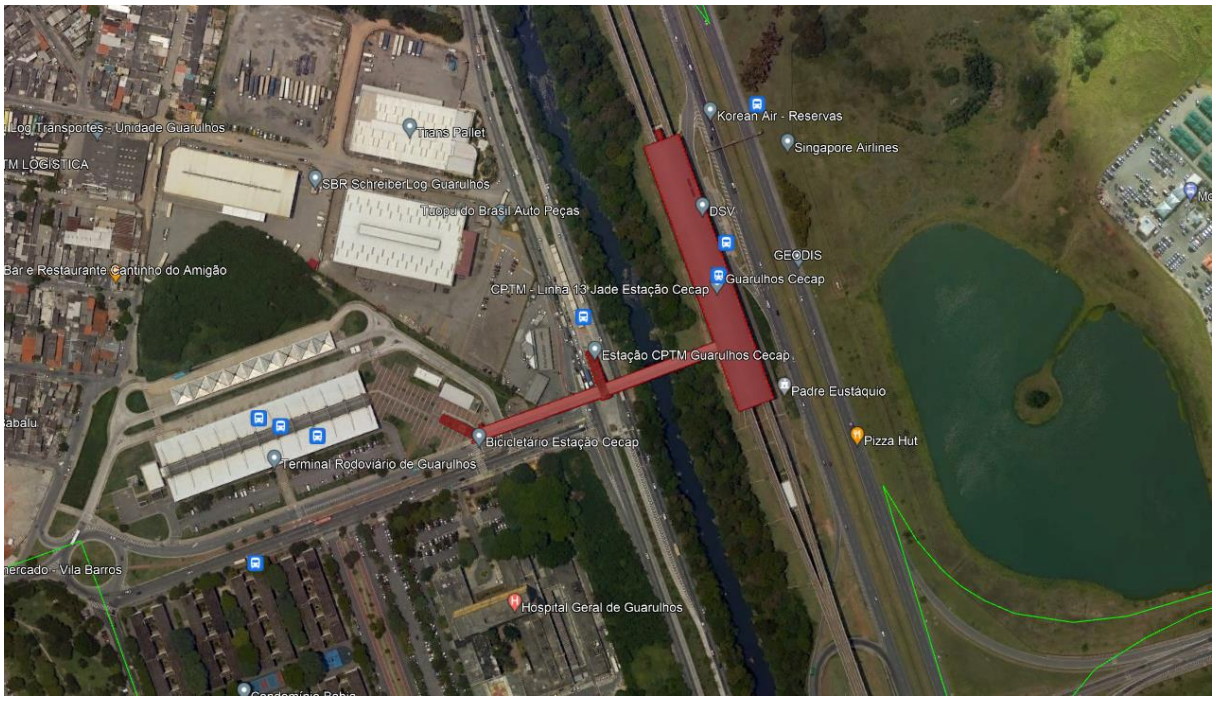
Table 39 - General characteristics of the Guarulhos-Cecap station

Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
5.3k	LINE 13 AIRPORT EXPRESS	No	Yes. Expiry: 18/11/24	192 (bike rack)	STT [1] (municipal) EMTU (intermunicipal) ARTESP (interestadual)
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platforms 1 and 2	LINE 13 / AIRPORT EXPRESS	190	10,1	Central

[1] STT: Guarulhos Department of Transportation and Traffic.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

Figure 146 - Location of Guarulhos-Cecap station



Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 147 – Access to the station



Source: TYLIN-Egis Consortium, 2023.

Figure 148 – Ticket office and self-service totem



Source: TYLIN-Egis Consortium, 2023.

Figure 149 – Platform view



Source: TYLIN-Egis Consortium, 2023.

Figure 150 – Tactile route and signage on the platform



Source: TYLIN-Egis Consortium, 2023.

3.29 AEROPORTO-GUARULHOS STATION

The Aeroporto-Guarulhos station is located on Avenida Marginal do Rio Baquirivú, in the municipality of Guarulhos. This station serves both the parador service and the AIRPORT EXPRESS SERVICE of LINE 13.

Table 40 - General characteristics of the Aeroporto-Guarulhos station

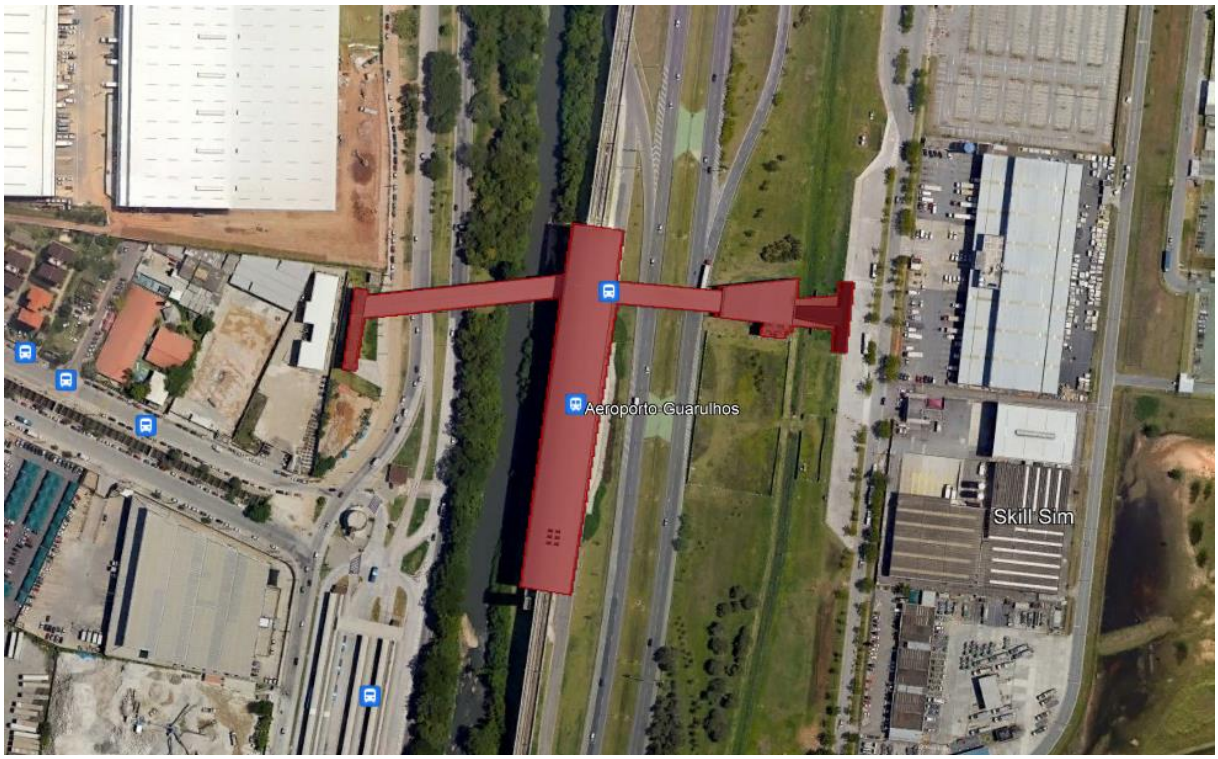
Average passengers on weekdays - MDU (Aug/2024)	Utility line/service at the station	Integrations with the metro rail network (trem = T / metrô = M)	AVCB	Bike Loops	Bus services at adjacent terminals
11.3k	LINE 13 AIRPORT EXPRESS	No	Yes. Expiry: 01/31/25	100 (bike rack)	STT [1] (municipal) EMTU (intermunicipal)
Number of platforms	**Identifier**	**Line/service (planned configuration for the concession)**	**Span (m)**	**Width (m)**	**Type**
2	Platform 1	LINE 13	193	7,3	Lateral
	Platform 2	LINE 13	193	7,3	Lateral

[1] STT: Guarulhos Department of Transportation and Traffic.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

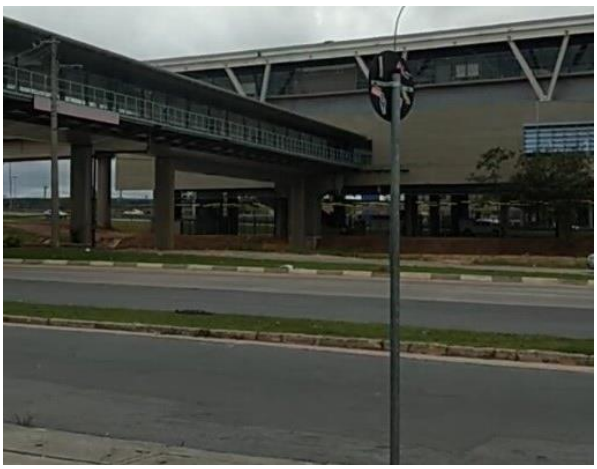
The east access to the station is installed next to Guarulhos airport and gives access to the airport facilities, cargo terminals and passenger terminals. Currently, next to this access, the *People Mover is being built*, which will connect the station to the airport and is not part of the EXISTING INFRASTRUCTURE.

Figure 151 - Location of the Aeroporto-Guarulhos station



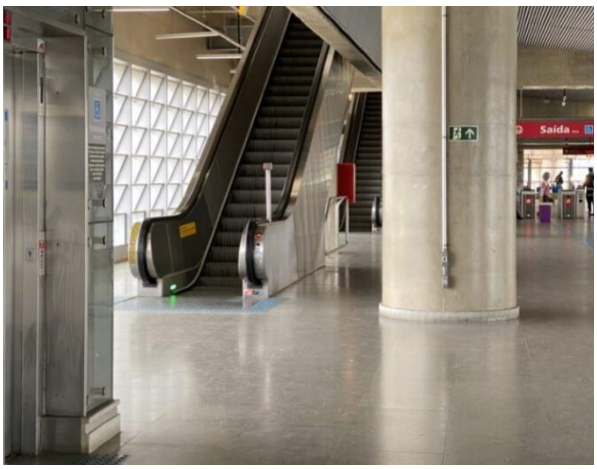
Source: Google Earth, 2023. Elaborated by: TYLIN-Egis Consortium.

Figure 152 – View of the access walkway to the Aeroporto-Guarulhos station



Source: TYLIN-Egis Consortium, 2023.

Figure 153 – Elevator and escalator for access to the platforms



Source: TYLIN-Egis Consortium, 2023.

Figure 154 – Platform view



Source: TYLIN-Egis Consortium, 2023.

Figure 155 – Tactile route and signage on the platform



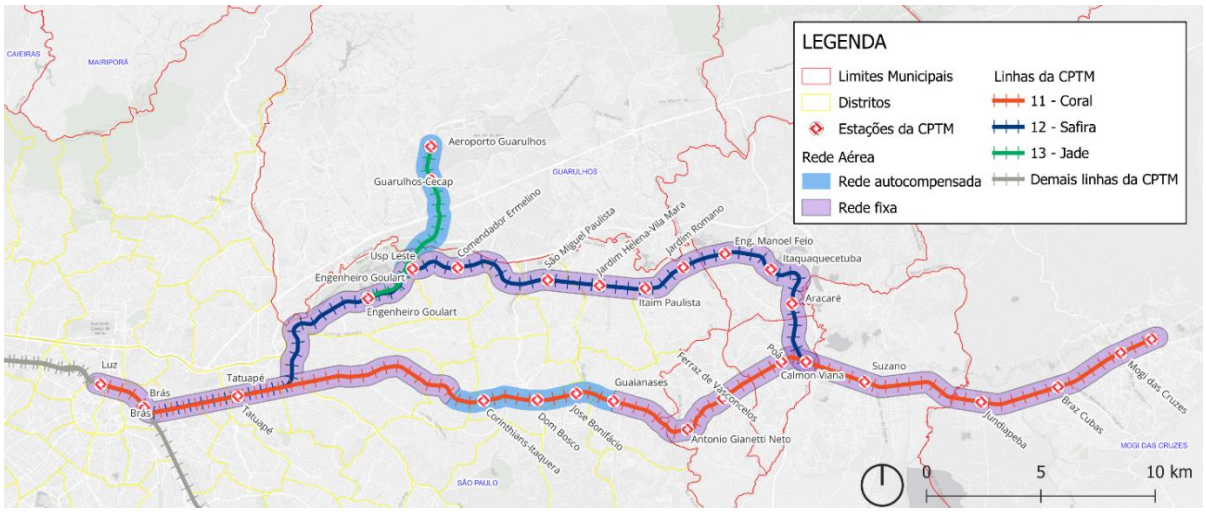
Source: TYLIN-Egis Consortium, 2023.

4 ENERGY, ELECTRIFICATION AND LIGHTING SYSTEMS

4.1 ENERGY AND ELECTRIFICATION

CPTM has approximately 221 km of aerial traction network installed on the LINES, on its main and auxiliary roads, detours, crossings and yards. On LINE 11, the stretches between Luz and Artur Alvim stations (belonging to Line 3-Red of the subway) and between Guaianases and Estudantes stations have a fixed aerial network, while the stretch between Artur Alvim and Guaianases, a self-compensated aerial network. All LINE 12 (Brás to Calmon Viana) has a fixed air network and all LINE 13 (Engenheiro Goulart to Aeroporto-Guarulhos), self-compensated. Finally, the stretch between the Palmeiras-Barra Funda and Luz stations, where the AIRPORT EXPRESS SERVICE operates and LINE 11 will operate, has a self-compensated aerial network.

Figure 156 – Sections with self-compensated and fixed overhead network (catenary) on the LINES



Source: TYLIN-Egis Consortium.

LINE 11 has 1,296 suspensions of the overhead network installed along its length; LINE 12 has 1,098; and LINE 13, 274. As for the number of spans per kilometer, for LINE 11, the minimum number is 14 and the maximum is 60; for LINE 12, the minimum is 8 and the maximum is 36; and for LINE 13, the minimum is 19 and the maximum is 32.

In order to complement the information presented in the Figure 156 in Table 41 The length of the overhead network for each line and by segment is displayed. The messenger cable for all cases is 253 mm².

Table 41 - 3kVdc overhead traction network (overhead contact line)

STRETCH	LINE	SYSTEM	MAIN ROADS (KM)	AUXILIARY ROADS AND YARDS (KM)	MESSENGER CABLE (mm2)	FIO DE CONTATO (mm2)
BFU - LUZ	11 - 13	SELF-COMPENSATED	8	0,8	253	2x107
LUZ – ART	11	FIXED	34	7,5	253	2x107
ART - GUA	11	SELF-COMPENSATED	14	3	253	2x107
GUA - EST	11	FIXED	54	6,5	253	2x107

STRETCH	LINE	SYSTEM	MAIN ROADS (KM)	AUXILIARY ROADS AND YARDS (KM)	MESSENGER CABLE (mm2)	FIO DE CONTATO (mm2)
BRÁS - CVN	12	FIXED	78	8	253	2x107
EGO - AGU	13	SELF-COMPENSATED	26	-	253	2x107

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

On Table 42, the transmission line inside the railway track for each of the lines is characterized.

Table 42 - Transmission lines within the railway track

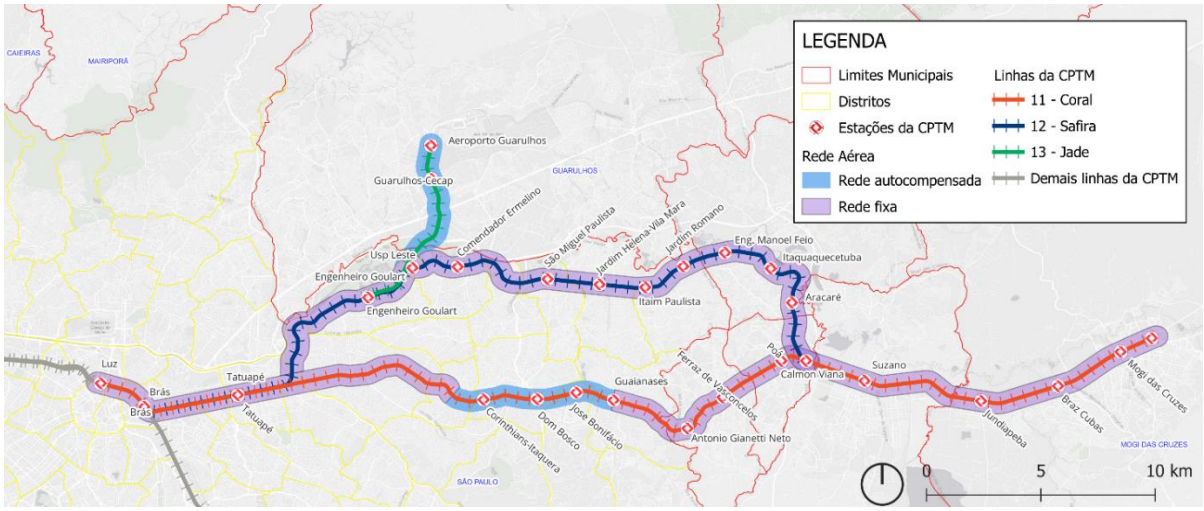
LINE	VOLTAGE (kVca)	LENGTH (KM)	TOTAL (KM)	NOTE
11	34,5	21	21	THREE-PHASE SUPPLY OF THE SECONDARY SUBSTATIONS BETWEEN THE PATRIARCA AND CALMON VIANA SUBSTATIONS ALONG THIS STRETCH, WITH 2 FEEDER CIRCUITS, 1 ON STANDBY.
12	-	-	-	IT DOES NOT HAVE A THREE-PHASE POWER CIRCUIT BETWEEN THE SUBSTATIONS. HOWEVER, IT IS CONNECTED TO THE 3KCC OVERHEAD VOLTAGE NETWORK
13	34,5	8,6	8,6	THREE-PHASE SUPPLY OF THE SECONDARY SUBSTATIONS BETWEEN THE ENGENHEIRO GOULART AND AIRPORT SUBSTATIONS ALONG THIS STRETCH, WITH 2 FEEDER CIRCUITS, 1 ON STANDBY.

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

The power system of the LINES consists of 12 rectifier substations, of which 7 receive energy at a voltage of 88 kVac and are fed directly by the energy concessionaires EDP (Energias de Portugal) and Enel (National Electricity Entity). These 7 substations feed the other 5 substations by 34.5 kVac circuits.

In addition, the system operates with 11 sectioning and paralleling cabins installed along the tracks, connected to the overhead traction networks; of these, 7 belong to LINE 11, 3 to LINE 12 and 1 to LINE 13. The Figure 157 and the Table 43 present the location of the substations and switching cabins, and their respective powers.

Figure 157 - Location of electrical substations and disconnecting cabinets and parallelism



Source: TYLIN-Egis Consortium.

Table 43 - Substations and power booths

LOCAL (KM FROM LUZ STATION)	LINE	CABIN / SUBSTATION	NAME	POWER
km 02+579	11	Sectioning cabin / parallelism	Brás	N/A
km 03+140		Electrical substation	Engenheiro São Paulo	4 x 3MW
km 10+474		Sectioning cabin / parallelism	Vila Matilde	N/A
km 13+200		Electrical substation	Patriarca	3 x 3MW
km 16+998		Sectioning cabin / parallelism	Artur Alvim	N/A
km 20+400		Electrical substation	Don Bosco	2 x 4MW
km 22+500		Sectioning cabin / parallelism	José Bonifácio	N/A
km 24+600		Electrical substation	Guaianases	2 x 4MW
km 29+500		Sectioning cabin / parallelism	Ferraz de Vasconcelos	N/A
km 33+931		Electrical substation	Calmon Viana	3 x 3MW
km 42+074		Sectioning cabin / parallelism	Jundiapeba	N/A
km 47+379		Electrical substation	Braz Cubas	2 x 3MW
km 50+741		Sectioning cabin / parallelism	Estudantes	N/A
km 08+360	12	Electrical substation	Eng. Sebastião Gualberto	2 x 3MW
km 15+526		Sectioning cabin / parallelism	Eng. Goulart	N/A
km 20+103		Electrical substation	Commander Ermelino	3 x 3MW
km 28+863		Sectioning cabin / parallelism	Itaim Paulista	N/A
km 33+600		Electrical substation	Manoel Feio	2 x 4MW
km 35+500		Sectioning cabin / parallelism	Itaquaquecetuba	N/A
km 15+720	13	Electrical substation	Engenheiro Goulart	4 x 4MW
km 20+015		Electrical substation	Ayrton Senna	3 x 4MW
km 22+400		Sectioning cabin / parallelism	Guarulhos CECAP	N/A
km 24+240		Electrical substation	Aeroporto-Guarulhos	2 x 4MW

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

All parallelism and sectioning cabins for the interconnection of the 3 kVdc catenaries have low voltage power, through exclusive connections from the energy concessionaires, with the exception of the Itaim and CECAP cabins, whose power comes from the homonymous stations. These connections allow the power supply of the command and control system, without contributing to traction.

Table 44 - Voltage per line

LINE	DESCRIPTION	FEEDING	SECONDARY VOLTAGE	VOLTAGE AUXILIARY SYSTEMS		VOLTAGE SIGNALING	TRILEE STRESS	POWER SUPPLY	TRACTION RECTIFIER GROUP
		88 kVca	34,5 kVca	13,8 kVca	220/110 Vca	4.4 kVca	3 kVca		
11	Eng. São Paulo (ISP)		X	X	X	X	X	SE PARI / SEE SCT	4 x 3MW
	Patriarca (PTR)	X	X	X	X		X	ENEL BRAZIL	3 x 3MW
	Dom Bosco (DBO)		X	X	X	X	X	SE PTR	2 x 4MW
	Guaianases (GUA)		X	X			X	SE CVN / SE PTR	2 x 4MW
	Calmon Viana (CVN)	X	X				X	EDP BRAZIL	3 x 3MW
	Braz Cubas (BCB)	X		X	X	X	X	EDP BRAZIL	2 x 3MW
12	Engº Gualberto (SGU)	X					X	ENEL BRAZIL	2 x 3MW
	Ermelino Matarazzo (ERM)	X		X	X	X	X	ENEL BRAZIL	3 x 3MW
	Eng. Manoel Feio (EMF)	X		X	X		X	EDP BRAZIL	2 x 4MW
13	Engº Goulart (EGO)		X	X	X		X	SE AYS	4 x 4MW
	Ayrton Senna (AYS)	X		X	X		X	EDP BRAZIL	3 x 4MW
	Airport (AGU)		X	X	X		X	SE AYS	2 x 4MW

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

It should be noted that most of the Substations and Sectioning Cabins belonging to the LINES do not have a Fire Department Inspection Certificate – AVCB.

Table 45 – AVCB in Electrical Substations and Sectioning Cabins

LINE	CABIN / SUBSTATION	NAME	VALIDITY
11	Sectioning cabin / parallelism	Brás	-
	Electrical substation	Engenheiro São Paulo	-
	Sectioning cabin / parallelism	Vila Matilde	-
	Electrical substation	Patriarca	29/11/2026
	Sectioning cabin / parallelism	Artur Alvim	-
	Electrical substation	Don Bosco	01/04/2025
	Sectioning cabin / parallelism	José Bonifácio	13/12/2025
	Electrical substation	Guaianases	04/09/2026
	Sectioning cabin / parallelism	Ferraz de Vasconcelos	14/12/2025
	Electrical substation	Calmon Viana	-
	Sectioning cabin / parallelism	Jundiapeba	-
	Electrical substation	Braz Cubas	-
	Sectioning cabin / parallelism	Estudantes	-
12	Electrical substation	Eng. Sebastião Gualberto	-
	Sectioning cabin / parallelism	Eng. Goulart	-
	Electrical substation	Comandador Ermelino	-
	Sectioning cabin / parallelism	Itaim Paulista	12/11/2024
	Electrical substation	Manoel Feio	21/12/2024
	Sectioning cabin / parallelism	Itaquaquecetuba	14/12/2025
13	Electrical substation	Engenheiro Goulart	28/11/2026
	Electrical substation	Ayrton Senna	21/08/2026
	Sectioning cabin / parallelism	Guarulhos CECAP	27/06/2026
	Electrical substation	Aeroporto-Guarulhos	29/06/2025

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

The existing equipment in the substations and disconnecting cabins of each of the lines (situation in December/2023) are listed below.

4.1.1 LINE 11

4.1.1.1 Disconnector cabin – Brás (with operators)

Table 46 - Equipment of the Brás sectioning cabin

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	1	ENERSYS
AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (BATTERY DISCONNECTS)	2	CTRLTECH
CC SECTIONING SHELLS	18	SIEMENS (SAIDA) / MERLIN GERIN (PARALLELS)

EQUIPMENT	QUANTITY	MAKER
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	12	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	12	SÉCHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	12	SIEMENS
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS
DC SURGE ARRESTER	12	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	TELVENT

Fonte: CPTM, 2023.

Table 47 - Equipment of the Brás sectioning cabin (34.5 kv station)

EQUIPMENT	QUANTITY	MAKER
CHAVES THREE-PHASE MOTORIZED AC PANEL SAWS (34.5KV)	6	TELBRA / SIGPER COMMAND
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	12	ARTECHE

Fonte: CPTM, 2023.

4.1.1.2 Electrical substation – Engenheiro São Paulo (with operators)

Table 48 - Equipment of the Engenheiro São Paulo substation

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	1	ENERSYS
AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (BATTERY DISCONNECTS)	2	CTRLTECH
CHAVES THREE-PHASE MOTORIZED AC PANEL SAWS (34.5KV)	3	SPIG
MANUAL AC DISCONNECT SWITCHES (34.5KV)	10	SPIG
MANUAL AC TWO-PHASE DISCONNECTORS [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (13.8KV CUBICLES)	6	SIGLA
MOTORIZED AC TWO-PHASE DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (13.8KV)	6	SIEMENS
CHAVES MOTORIZED DC PANEL SAWS	18	MERLIN GERIN / SOULE FRANCE
DC MANUAL DISCONNECT SWITCHES	8	ALSTHON 015b
AC SHIELDED CUBICLES (13.8KV)	8	SIGLA
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	9	SIEMENS
THREE-PHASE AC CIRCUIT BREAKERS 34.5KV (GAS INSULATION)	6	SIEMENS
THREE-PHASE AC DISJUNCTORS 13.8KV – PVO	7	SACE(ABB)
ULTRA-FAST DISJOINTERS 3KVCC	11	Sécheron
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	8	SIEMENS
PROTECTION AND/OR CONTROL PANELS	6	SIEMENS
AC SURGE ARRESTER	8	ALSTHON 015b
DC SURGE ARRESTER	9	SIEMENS
3KVCC RETIFIERS	4	ALSTHON
BALLASTS AND HARMONIC FILTERS	1	ALSTHON 015b

EQUIPMENT	QUANTITY	MAKER
POWER TRANSFORMERS (34.5KV - 1225KV)	4	ASLSTHON
POWER TRANSFORMERS (34.5KV - 13.8KV)	2	ITEL
POWER TRANSFORMERS (13.8KV - 220V)	2	ITEL
POWER TRANSFORMERS (13.8KV - 4.4KV)	2	ITAIPU
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	28	ALSTHON 015b
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	28	ALSTHON 015b
REMOTE CONTROL SYSTEM PANEL	2	TELVENT /SCHINEIDER

Fonte: CPTM, 2023.

4.1.1.3 Sectioning cabin – Vila Matilde (active remote control, no operators)

Table 49 - Equipment of the Vila Matilde sectioning cabin

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	1	ENERSYS
AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (BATTERY DISCONNECTS)	2	CTRLTECH
CC SECTIONING SHELLS	6	MERLIN GERIN
CHAVES DISCONNECTORS AC 13.8/4.4KV	2	*
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	4	SÉCHRON /SITRAS
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS
DC SURGE ARRESTER	4	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	TELVENT/SCHINIDER

Fonte: CPTM, 2023.

4.1.1.4 Electrical substation – Patriarca (with operators)

Table 50 - Equipment of the Patriarca substation

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	ALPHA
BATTERY BANK	2	POWER SAFE
AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (BATTERY DISCONNECTS)	2	ALPHA
CHAVES MOTORIZED AC THREE-PHASE PANEL SAWS 88KV	8	CAMARGO CORREA BROWN BOVERI
MANUAL THREE PHASE AC DISCONNECT SWITCHES 88KV	5	CAMARGO CORREA BROWN BOVERI
CHAVES THREE-PHASE MOTORIZED AC DISCONNECTORS 34.5KV	6	TCEL
THREE-PHASE AC MANUAL DISCONNECT SWITCHES 34.5KV	2	BCE
CHAVES MOTORIZED AC TWO-PHASE PANEL SAWS 13.8KV (SAIDA CTC)	6	SIEMENS
MANUAL AC TWO-PHASE DISCONNECT SWITCHES 13.8KV	14	SIGLA
MOTORIZED DC PANEL SAWS	3	MERLIN GERIN
MANUAL DC DISCONNECT SWITCHES	3	ALSTHON 015b
AC SHIELDED CUBICLES (13.8KV)	7	SIGLA

EQUIPMENT	QUANTITY	MAKER
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SIEMENS
88KV AC CIRCUIT BREAKERS (SF6 INSULATION)	7	ABB
AC 34.5KV CIRCUIT BREAKERS (VACUUM INSULATION)	4	SIEMENS
13.8KV AC CIRCUIT BREAKERS (PVO INSULATION)	4	ABB
ULTRA-FAST DISJOINTERS 3KVCC	4	SÉCHRON /SITRAS
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	3	SIEMENS
AC SURGE ARRESTER	18	SURGE COUTERS C12 POLIMÉRICO
DC SURGE ARRESTER	4	SIEMENS
3KVCC RETIFIERS	3	ALSTHON
BALLASTS AND HARMONIC FILTERS	1	ALSTHON 015b
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	50	SCAC
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	45	SCAC
POWER TRANSFORMERS 88KV-1,225KV	3	ALSTHON
88KV-34.5KV POWER TRANSFORMERS	2	SIEMENS
88KV-13.8KV POWER TRANSFORMERS	2	ITEL
POWER TRANSFORMERS 13.8KV-220V	2	TRAFO
REMOTE CONTROL SYSTEM PANEL	2	SIEMENS

Fonte: CPTM, 2023.

4.1.1.5 Disconnector cabin – Artur Alvim (active remote control without operators)

Table 51 - Equipment of the sectioning cabin Artur Alvim

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	1	ENERSYS
AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (BATTERY DISCONNECTS)	2	CTRLTECH
CC SECTIONING SHELLS	6	MERLIN GERIN
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	4	SÉCHRON /SITRAS
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS
DC SURGE ARRESTER	4	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	TELVENT/SCHINIDER

Fonte: CPTM, 2023.

4.1.1.6 Electrical substation – Dom Bosco (with operators)

Table 52 - Equipment of the Dom Bosco substation

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	ALPHA
BATTERY BANK	2	ENERSYS

EQUIPMENT	QUANTITY	MAKER
LOW VOLTAGE AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS]	2	ALPHA
CHAVES THREE-PHASE MOTORIZED AC PANEL SAWS (34.5KV)	6	SIEMENS
MANUAL THREE PHASE AC DISCONNECT SWITCHES (34.5KV)	4	SIEMENS
MOTORIZED AC TWO-PHASE DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (13.8KV)	6	TCEL
CHAVES MOTORIZED DC PANEL SAWS	18	SIEMENS
DC MANUAL DISCONNECT SWITCHES	12	SIEMENS- OUTLETS / MERSEN - LIGHTNING KNIVES
AC SHIELDED CUBICLES (34.5KV)	15	SIEMENS
AC SHIELDED CUBICLES (13.8KV)	11	SIEMENS
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	6	SIEMENS
THREE-PHASE AC CIRCUIT BREAKERS 34.5KV (VACUUM INSULATION)	7	SIEMENS
TWO-PHASE AC CIRCUIT BREAKERS 13.8KV (VACUUM INSULATION)	9	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	6	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	6	SECPANEL
AC SURGE ARRESTER	6	MERSEN
DC SURGE ARRESTER	4	MERSEN
3KVCC RETIFIERS	2	SIEMENS
BALLASTS AND HARMONIC FILTERS	2	SIEMENS
POWER TRANSFORMERS (34.5KV - 1225KV)	2	SIEMENS
POWER TRANSFORMERS (34.5KV - 13.8KV)	2	SIEMENS
POWER TRANSFORMERS (13.8KV - 220V)	2	SIEMENS
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	14	ALCE
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	28	ORTENG
REMOTE CONTROL SYSTEM PANEL	2	SIEMENS

Fonte: CPTM, 2023.

4.1.1.7 Disconnector cabin – José Bonifácio (active remote control without operators)

Table 53 - José Bonifácio sectioning cabin equipment

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	2	ENERSYS
CC SECTIONING SHELLS	6	SIEMENS
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	4	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS
DC SURGE ARRESTER	5	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	SIEMENS

Fonte: CPTM, 2023.

4.1.1.8 Electrical substation – Guaianases (with operators)

Table 54 - Guaianases Substation Equipment

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	FSE
BATTERY BANK	2	FULGURIS
MANUAL THREE PHASE AC DISCONNECT SWITCHES (34.5KV)	6	DELMAR
MANUAL AC TWO-PHASE DISCONNECTORS [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (13.8KV)	6	ABB
THREE-PHASE MOTORIZED AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS] (13.8KV)	2	ABB/SIEMENS
CHAVES THREE-PHASE MOTORIZED AC PANEL SAWS (34.5KV)	12	DELMAR
CHAVES MOTORIZED DC PANEL SAWS	9	MAURIZIO/COMECEL
DC MANUAL DISCONNECT SWITCHES	4	SECHERON
AC SHIELDED CUBICLES (13.8KV)	11	ABB
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	6	SECHERON
THREE PHASE AC CIRCUIT BREAKERS 34.5KV (SF6 GAS INSULATION)	6	ABB
TWO-PHASE AC CIRCUIT BREAKERS 13.8KV (VACUUM INSULATION)	5	ABB
ULTRA-FAST DISJOINTERS 3KVCC	5	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	SECHERON
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	5	SECHERON
PROTECTION AND/OR CONTROL PANELS	6	ABB
AC SURGE ARRESTER	12	BALESTRO
DC SURGE ARRESTER	5	POLIMI
3KVCC RETIFIERS	2	ABB
BALLASTS AND HARMONIC FILTERS	2	ABB
POWER TRANSFORMERS (34.5KV - 1225KV)	2	TRAFO
POWER TRANSFORMERS (34.5KV - 13.8KV)	2	ABB
POWER TRANSFORMERS (13.8KV - 220V)	2	ABB
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	18	ABB
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	18	ISOLET
REMOTE CONTROL SYSTEM PANEL	2	TELVENT

Fonte: CPTM, 2023.

4.1.1.9 Disconnector cabin – Ferraz de Vasconcelos (active remote control without operators)

Table 55 - Equipment of the Ferraz de Vasconcelos sectioning cabin

EQUIPMENT	AS	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	2	ENERSYS
CC SECTIONING SHELLS	6	SIEMENS
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	4	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS

EQUIPMENT	AS	MAKER
DC SURGE ARRESTER	5	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	SIEMENS

Fonte: CPTM, 2023.

4.1.1.10 Electrical substation – Calmon Viana (with operators)

Table 56 - Equipment of the Calmon Viana Substation

EQUIPMENT	QUANTIDAE	MAKER
BATTERY CHARGERS	1	NIFE
BATTERY BANK	1	FULGURIS
CHAVES MOTORIZED AC THREE-PHASE PANEL SAWS 88KV	2	DELMAR
MANUAL THREE PHASE AC DISCONNECT SWITCHES 88KV	12	BROWN BOVERI
CHAVES THREE-PHASE MOTORIZED AC DISCONNECTORS 34.5KV	2	DELMAR
THREE-PHASE AC MANUAL DISCONNECT SWITCHES 34.5KV	12	DELMAR
MOTORIZED DC PANEL SAWS	12	MAURIZIO/COMECEL
MANUAL DC DISCONNECT SWITCHES	9	SECHERON
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	8	SECHERON
88KV AC CIRCUIT BREAKERS (SF6 INSULATION)	5	ABB / ALSTHOM
34.5KV AC CIRCUIT BREAKERS (SF6 INSULATION)	4	ABB
ULTRA-FAST DISJOINTERS 3KVCC	8	SECHERON
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	8	SECHERON
PROTECTION AND/OR CONTROL PANELS	3	HUSK/EFACEC/ABB
AC SURGE ARRESTER	6	BALESTRO
DC SURGE ARRESTER	8	POLIMI
3KVCC RETIFIERS	3	JEUMONT SECHNEIDER/SIEMENS
BALLASTS AND HARMONIC FILTERS	3	JEUMONT SECHNEIDER/SIEMENS
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	6	ABB/RITZ/ALSTOM
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	18	BROWN BOVERI/ABB
POWER TRANSFORMERS 88KV-2.245KV	3	BROWN BOVERI
88KV-34.5KV POWER TRANSFORMERS	2	ABB

Fonte: CPTM, 2023.

4.1.1.11 Disconnector cabin – Jundiapeba (with operators)

Table 57 - Equipment of the Jundiapeba Sectioning Cabin

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	1	ENERSYS
LOW VOLTAGE AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS]	2	CTRLTECH
CC SECTIONING SHELLS	8	SIEMENS
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	5	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	5	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	5	SIEMENS

EQUIPMENT	QUANTITY	MAKER
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS
DC SURGE ARRESTER	5	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	TELVENT

Fonte: CPTM, 2023.

4.1.1.12 Electrical substation – Braz Cubas (with operators)

Table 58 - Braz Cubas Substation Equipment

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	1	ENERSYS
CHAVES MOTORIZED AC THREE-PHASE PANEL SAWS 88KV	4	CAMARGO CORREA BROWN BOVERI
MANUAL THREE PHASE AC DISCONNECT SWITCHES 88KV	4	CAMARGO CORREA BROWN BOVERI
CHAVES MOTORIZED AC TWO-PHASE PANEL SAWS 13.8KV	6	SIEMENS
MANUAL AC TWO-PHASE DISCONNECT SWITCHES 13.8KV	14	SIGLA
MOTORIZED DC PANEL SAWS	8	MERLIN GERIN
MANUAL DC DISCONNECT SWITCHES	2	ALSTHOM
AC SHIELDED CUBICLES (13.8KV)	8	SIGLA
AC (13.8KV) PVO CIRCUIT BREAKERS	7	SACE
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	5	SIEMENS
88KV AC CIRCUIT BREAKERS (SF6 INSULATION)	4	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	5	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	3	SIEMENS
AC SURGE ARRESTER	18	SURGE COUTERS C12 POLIMÉRICO
DC SURGE ARRESTER	4	SIEMENS
3KVCC RETIFIERS	2	ALSTHOM
BALLASTS AND HARMONIC FILTERS	1	ALSTHOM
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	24	SCAC
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	30	SCAC
POWER TRANSFORMERS 88KV-1,225KV	2	ALSTHOM
88KV-13.8KV POWER TRANSFORMERS	2	ITEL
POWER TRANSFORMERS 13.8KV-220V	2	TRAFO
REMOTE CONTROL SYSTEM PANEL	2	TELVENT

Fonte: CPTM, 2023.

4.1.1.13 Panel cabin – Estudantes (active remote control without operators)

Table 59 - Sectioning Cabinet Equipment Estudantes

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	1	ENERSYS

EQUIPMENT	QUANTITY	MAKER
LOW VOLTAGE AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS]	2	CTRLTECH
CC SECTIONING SHELLS	6	SIEMENS
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	2	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	2	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	2	SIEMENS
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS
DC SURGE ARRESTER	4	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	TELVENT

Fonte: CPTM, 2023.

4.1.2 LINE 12

4.1.2.1 Electrical substation – Engenheiro Sebastião Gualberto (with operators)

Table 60 - Equipment of the Engenheiro Sebastião Gualberto substation

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	VERTEL / NIFE
BATTERY BANK	2	MOURA /FULGURIS
88KV MANUAL AC THREE-PHASE DISCONNECT SWITCHES (INCLUDING FUSES)	8	GEC ALSTHOM
THREE-PHASE MANUAL AC DISCONNECT SWITCHES 25KV	13	BROWN BOVERI
MOTORIZED DC PANEL SAWS	12	ARTECHE/SIEMENS (3KV SAÍDAS) / MERLIN GERIN (PARALLELS)
MANUAL DC DISCONNECT SWITCHES	22	BROWN BOVERI
AC SHIELDED CUBICLES (13.8KV)	8	ENGELCO
88KV AC CIRCUIT BREAKERS (SF6 INSULATION)	2	ALSTHOM
25KV AC CIRCUIT BREAKERS (SF6 INSULATION)	2	BROWN BOVERI
EXTRA-FAST DISJOINTERS 3KVCC	8	GE / ALSTHOM
PROTECTION AND/OR CONTROL PANELS	5	HUSK/BTM/ENGELCO
AC SURGE ARRESTER	6	TRIDELTA
DC SURGE ARRESTER	8	SIEMENS
3KVCC RETIFIERS	3	JEUMONT SCHNEIDER
BALLASTS AND HARMONIC FILTERS	1	ABB/BROWN BOVERI
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	12	BROWN BOVERI
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	20	BROWN BOVERI
POWER TRANSFORMERS 88KV-1,225KV	3	GE
SINGLE PHASE POWER TRANSFORMERS 88KV-25KV	6	BROWN BOVERI
POWER TRANSFORMERS 25KV-6.6KV	2	GE
POWER TRANSFORMERS 25KV-38-0	1	ABB

Fonte: CPTM, 2023.

4.1.2.2 Disconnector cabin – Engenheiro Goulart (active remote control without operators)

Table 61 - Engenheiro Goulart sectioning cabin equipment

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	ALPHA
BATTERY BANK	1	ENERSYS
LOW VOLTAGE AC DISCONNECT SWITCHES [INCLUDING FUSE SWITCHES / FUSE DISCONNECTS]	2	ALPHA
CC SECTIONING SHELLS	6	SIEMENS
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC	4	SÉCHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	2	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS
DC SURGE ARRESTER	4	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	TELVENT

Fonte: CPTM, 2023.

4.1.2.3 Electrical substation – Comendador Ermelino (with operators)

Table 62 - Equipment of the Comendador Ermelino Substation

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	1	CTRLTECH
BATTERY BANK	1	FULGURIS
CHAVES MOTORIZED AC THREE-PHASE PANEL SAWS 88KV	8	ALCACE
88KV MANUAL AC THREE-PHASE DISCONNECT SWITCHES (INCLUDING FUSES)	8	ALCACE
CHAVES MOTORIZED AC THREE-PHASE PANEL SAWS 13.8KV	6	SIEMENS
THREE-PHASE MANUAL AC DISCONNECT SWITCHES 13.8KV (INCLUDING FUSE SWITCH)	4	SIEMENS
MOTORIZED DC PANEL SAWS	15	ARTECHE
MANUAL DC DISCONNECT SWITCHES	9	SIEMENS
AC SHIELDED CUBICLES (13.8KV)	7	SIEMENS
88KV AC CIRCUIT BREAKERS (SF6 INSULATION)	5	SIEMENS
13.8KV AC CIRCUIT BREAKERS (PVO INSULATION)	7	SIEMENS
EXTRA-FAST DISJOINTERS 3KVCC	4	ALSTHOM
POTENTIAL EQUALIZATION CUBICLE – CEP	1	SIEMENS
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	TRANSISTROL
PROTECTION AND/OR CONTROL PANELS	5	SIEMENS
AC SURGE ARRESTER	6	SIEMENS
DC SURGE ARRESTER	4	SIEMENS
3KVCC RETIFIERS	3	SIEMENS
BALLASTS AND HARMONIC FILTERS	3	SIEMENS
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	6	SIEMENS
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	6	SIEMENS
POWER TRANSFORMERS 88KV-1,225KV	3	TRAFO/UNIÃO
POWER TRANSFORMERS 88KV-13.8KV/220V	2	ZILMER INELTECH
POWER TRANSFORMERS 13.8KV-4.4KV	2	ZILMER INELTECH

Fonte: CPTM, 2023.

4.1.2.4 Disconnector cabin – Itaim Paulista (active remote control without operators)

Table 63 - Itaim Paulista sectioning cabin equipment

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	EFACEC
BATTERY BANK	1	FULGURIS
CC SECTIONING SHELLS	6	MAURIZIO COMECEL / SIEMENS
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SÉCHERON
ULTRA-FAST DISJOINTERS 3KVCC	4	SÉCHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	SÉCHERON
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SÉCHERON
PROTECTION AND/OR CONTROL PANELS	2	EFACEC
DC SURGE ARRESTER	4	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	TELVENT

Fonte: CPTM, 2023.

4.1.2.5 Electrical substation – Manoel Feio (with operators)

Table 64 - Manoel Feio substation equipment

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	EFACEC
BATTERY BANK	2	FULGURIS
CHAVES MOTORIZED AC THREE-PHASE PANEL SAWS 88KV	9	AREVA / TRANS-RUPTER II (88KV FUSES)
CHAVES MOTORIZED AC THREE-PHASE PANEL SAWS 13.8KV	6	ISPAR
THREE-PHASE MANUAL AC DISCONNECT SWITCHES 13.8KV (INCLUDING FUSE SWITCH)	6	EFACEC (ARMORED CUBICLES)
MOTORIZED DC PANEL SAWS	10	MAURIZIO COMECEL/SIEMENS
MANUAL DC DISCONNECT SWITCHES	2	SECHERON
AC SHIELDED CUBICLES (13.8KV)	10	EFACEC
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	6	SECHERON
88KV AC CIRCUIT BREAKERS (SF6 INSULATION)	4	AREVA (GE/ALSTHOM)
13.8KV AC CIRCUIT BREAKERS (VACUUM INSULATION)	6	EFACEC
ULTRA-FAST DISJOINTERS 3KVCC	4	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	SECHERON
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SECHERON
PROTECTION AND/OR CONTROL PANELS	5	EFACEC
AC SURGE ARRESTER	8	ITA
DC SURGE ARRESTER	4	NOT INFORMED
3KVCC RETIFIERS	2	EFACEC
BALLASTS AND HARMONIC FILTERS	2	EFACEC
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	6	NOT INFORMED
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	6	NOT INFORMED
POWER TRANSFORMERS 88KV-1,250KV	2	NOT INFORMED
88KV-13.8KV POWER TRANSFORMERS	2	NOT INFORMED

EQUIPMENT	QUANTITY	MAKER
POWER TRANSFORMERS 13.8KV-220V	2	NOT INFORMED

Fonte: CPTM, 2023.

4.1.2.6 Disconnector cabin – Itaquaquecetuba (active remote control without operators)

Table 65 - Equipment of the Itaquaquecetuba sectioning cabin

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	2	ENERSYS
CC SECTIONING SHELLS	6	SIEMENS
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SIEMENS
ULTRA-FAST DISJOINTERS 3KVCC (SÉCHERON)	4	SECHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	COET
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SIEMENS
PROTECTION AND/OR CONTROL PANELS	2	SIEMENS
DC SURGE ARRESTER	5	SIEMENS
REMOTE CONTROL SYSTEM PANEL	1	SIEMENS

Fonte: CPTM, 2023.

4.1.3 LINE 13

4.1.3.1 Electrical substation – Engenheiro Goulart (with operators)

Table 66 - Equipment of the Engenheiro Goulart Substation

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	2	FULGURIS
CHAVES THREE-PHASE MOTORIZED AC DISCONNECTORS 34.5KV	6	ABB
THREE-PHASE AC MANUAL DISCONNECT SWITCHES 34.5KV	2	ACTEMIUM
MOTORIZED DC PANEL SAWS	14	COET
MANUAL DC DISCONNECT SWITCHES	12	SÉCHERON
AC SHIELDED CUBICLES (34.5KV)	13	ACTEMIUM
AC SHIELDED CUBICLES (13.8KV)	13	ACTEMIUM
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	20	SÉCHERON
AC 34.5KV CIRCUIT BREAKERS (VACUUM INSULATION)	9	ABB
13.8KV AC CIRCUIT BREAKERS (VACUUM INSULATION)	9	ABB
ULTRA-FAST DISJOINTERS 3KVCC	15	SÉCHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	2	SÉCHERON
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	15	SÉCHERON
PROTECTION AND/OR CONTROL PANELS	4	POWER FLEX
AC SURGE ARRESTER	12	BALESTRO
DC SURGE ARRESTER	9	COET
3KVCC RETIFIERS	4	SÉCHERON
BALLASTS AND HARMONIC FILTERS	4	SÉCHERON
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S) - SHIELDED CUBICLES	36	BALTEAU

EQUIPMENT	QUANTITY	MAKER
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S) - SHIELDED CUBICLES	66	BALTEAU
POWER TRANSFORMERS 34.5KV-1.245KV	4	BLUTRAFOS
POWER TRANSFORMERS 34.5KV-13.8KV	2	BLUTRAFOS
POWER TRANSFORMERS 13.8KV-220V	2	BLUTRAFOS
REMOTE CONTROL SYSTEM PANEL	4	CAESA

Fonte: CPTM, 2023

4.1.3.2 Electrical substation – Ayrton Senna (with operators)

Table 67 - Ayrton Senna Substation Equipment

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	FULGURIS
BATTERY BANK	2	CTRLTECH
CHAVES MOTORIZED AC THREE-PHASE PANEL SAWS 88KV	8	GE/ALSTHOM
THREE-PHASE AC MANUAL DISCONNECT SWITCHES 34.5KV	4	ACTEMIUM
MOTORIZED DC PANEL SAWS	6	COET
MANUAL DC DISCONNECT SWITCHES	6	SÉCHERON
AC SHIELDED CUBICLES (34.5KV)	14	ACTEMIUM
AC SHIELDED CUBICLES (13.8KV)	11	ACTEMIUM
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	10	SÉCHERON
88KV AC CIRCUIT BREAKERS (SF6 INSULATION)	2	AREVA (GE/ALSTHOM)
AC 34.5KV CIRCUIT BREAKERS (VACUUM INSULATION)	12	ABB
13.8KV AC CIRCUIT BREAKERS (VACUUM INSULATION)	9	ABB
ULTRA-FAST DISJOINTERS 3KVCC	4	SÉCHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	SÉCHERON
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SÉCHERON
PROTECTION AND/OR CONTROL PANELS	4	ACTEMIUM
AC SURGE ARRESTER	16	BALESTRO (13,8Kv) // TE CONNECTIVITY (88kV)
DC SURGE ARRESTER	4	COET
3KVCC RETIFIERS	3	SÉCHERON
BALLASTS AND HARMONIC FILTERS	3	SÉCHERON
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S)	6	ALSTOM
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S) (SHIELDED CUBICLES)	28	BALTEAU
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S)	6	ALSTOM
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S) - SHIELDED CUBICLES	66	BALTEAU
88KV-34.5KV POWER TRANSFORMERS	2	TOSHIBA
POWER TRANSFORMERS 34.5KV-13.8KV	2	BLUTRAFOS
POWER TRANSFORMERS 13.8KV-220V	2	BLUTRAFOS
34KV-1,245KV POWER TRANSFORMERS	3	BLUTRAFOS
REMOTE CONTROL SYSTEM PANEL	2	TOSHIBA

Fonte: CPTM, 2023.

4.1.3.3 Disconnector cabin – Guarulhos CECAP (active remote control without operators)

Table 68 - Guarulhos CECAP Sectioning Cabin Equipment

EQUIPMENT	QUANTITY	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	2	FULGURIS
CC SECTIONING SHELLS	6	COET
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	4	SÉCHERON
ULTRA-FAST DISJOINTERS 3KVCC	4	SÉCHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	SÉCHERON
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SÉCHERON
PROTECTION AND/OR CONTROL PANELS	2	CAESA
DC SURGE ARRESTER	4	COET
REMOTE CONTROL SYSTEM PANEL	1	CAESA

Fonte: CPTM, 2023.

4.1.3.4 Electrical substation – Aeroporto-Guarulhos (with operators)

Table 69 - Equipment of the Aeroporto-Guarulhos Substation

EQUIPMENT	AS	MAKER
BATTERY CHARGERS	2	CTRLTECH
BATTERY BANK	2	FULGURIS
CHAVES THREE-PHASE MOTORIZED AC DISCONNECTORS 34.5KV	6	ABB
THREE-PHASE AC MANUAL DISCONNECT SWITCHES 13.8KV (GROUNDING)	2	ABB
THREE-PHASE AC MANUAL DISCONNECT SWITCHES 34.5KV (GROUNDING)	2	ABB
MOTORIZED DC PANEL SAWS	6	COET
MANUAL DC DISCONNECT SWITCHES	4	SÉCHERON
AC SHIELDED CUBICLES (34.5KV)	13	ACTEMIUM
AC SHIELDED CUBICLES (13.8KV)	13	ACTEMIUM
DC SHIELDED CUBICLES [EXCEPT GROUNDING CUBICLES]	10	SÉCHERON
AC 34.5KV CIRCUIT BREAKERS (VACUUM INSULATION)	9	ABB
13.8KV AC CIRCUIT BREAKERS (VACUUM INSULATION)	9	ABB
ULTRA-FAST DISJOINTERS 3KVCC	6	SÉCHERON
POTENTIAL EQUALIZATION CUBICLE – CEP	1	SÉCHERON
TRACK TEST DEVICES AND RELIG. AUTOM. 3KVCC	4	SÉCHERON
PROTECTION AND/OR CONTROL PANELS	4	POWER FLEX
AC SURGE ARRESTER	12	BALESTRO
DC SURGE ARRESTER	4	COET
3KVCC RETIFIERS	2	SÉCHERON
BALLASTS AND HARMONIC FILTERS	2	SÉCHERON
PROTECTION AND MEASUREMENT TRANSFORMERS (TP'S) - SHIELDED CUBICLES	36	BALTEAU
PROTECTION AND MEASUREMENT TRANSFORMERS (CT'S) - SHIELDED CUBICLES	66	BALTEAU
POWER TRANSFORMERS 34.5KV-1.245KV	2	BLUTRAFOS
POWER TRANSFORMERS 34.5KV-13.8KV	2	BLUTRAFOS
POWER TRANSFORMERS 13.8KV-220V	2	BLUTRAFOS

EQUIPMENT	AS	MAKER
REMOTE CONTROL SYSTEM PANEL	4	CAESA

Fonte: CPTM, 2023.

4.2 LIGHTING

The following is information regarding lighting systems in stations.

Table 70 - Lighting in stations

LINE/SERVICE	SEASON	LAMP TYPE	POWER	QUANTITY
11-CORAL AIRPORT EXP.	BFU	LED TUBULAR	9 watts	96
			18 watts	3.686
		LED HIGHBAY STREET LIGHT FIXTURE	190 watts	36
			200 watts	74
		SUBTOTAL		**3.892**
11-CORAL AIRPORT EXP.	LIGHT	LED TUBULAR	60 watts	45
		METALLIC STEAM	150 W / E40	12
			150 W / RX7S-24	42
			250 W / E40	39
		FLUORESCENTE TUBULAR	16 watts	192
			20 watts	90
			32 watts	771
			110 watts	363
			8 W/E27	1.416
		FLUORESCENTE COMPACTA	26 W / 4 PINOS	119
		INCANDESCENT	100 W/E27	118
			150 W/E27	160
			160 W/E27	25
		ELLIPSOIDAL SODIUM VAPOR	70 W / RX7S	88
		HALOGEN	50 W / E27	20
		SUBTOTAL		**3.500**
11-CORAL 12-SAFIRA AIRPORT EXP.	LOW	LED TUBULAR	9 watts	30
			18 watts	807
		LED HIGHBAY STREET LIGHT FIXTURE	190 watts	420
			200 watts	92
			200 watts	121
		MIXED STEAM	250 W/E27	6
		TUBULAR SODIUM VAPOR	250 watts	3
		METALLIC STEAM	70 W/G12	24
			400 W / E40	28
		SUBTOTAL		**1.531**
11-CORAL 12-SAFIRA	DEED	LED TUBULAR	9 watts	16
			18 watts	124
			36 watts	738
		BULBOLED	60 W/E27	73
		MERCURY VAPOR	400 W / E40	67
		SUBTOTAL		**1.018**
11-CORAL	ITQ	LED TUBULAR	18 watts	824
			36 watts	193

LINE/SERVICE	SEASON	LAMP TYPE	POWER	QUANTITY
		SUBTOTAL		**1.017**
11-CORAL	DBO	LED TUBULAR	18 watts	1.627
		BULBOLED	60 W/E27	111
		MIXED STEAM	160 W/E27	58
		TUBULAR SODIUM VAPOR	400 watts	36
		SUBTOTAL		**1.832**
11-CORAL	JBO	LED TUBULAR	18 watts	1.840
		BULBOLED	60 W/E27	117
		MERCURY VAPOR	250 W / E40	31
		SUBTOTAL		**1.988**
11-CORAL	CAVE	LED TUBULAR	18 watts	2.048
		LED HIGHBAY STREET LIGHT	200 watts	31
		FIXTURE	200 watts	30
		TUBULAR SODIUM VAPOR	250 watts	48
		METALLIC STEAM	400 W / E40	50
		SUBTOTAL		**2.207**
11-CORAL	AGN	LED TUBULAR	18 watts	499
		MERCURY VAPOR	250 W / E40	12
		SUBTOTAL		**511**
11-CORAL	FVC	LED TUBULAR	9 watts	56
			18 watts	1.084
		BULBOLED	60 W/E27	878
		MERCURY VAPOR	250 W / E40	5
		TUBULAR SODIUM VAPOR	150 watts	7
		SUBTOTAL		**2.030**
11-CORAL	POA	LED TUBULAR	9 watts	48
			18 watts	800
		TUBULAR SODIUM VAPOR	150 watts	24
		SUBTOTAL		**872**
11-CORAL 12-SAFIRA	CVN	LED TUBULAR	9 watts	6
			18 watts	1.060
		BULBOLED	60 W/E27	8
		MIXED STEAM	160 W/E27	2
		SUBTOTAL		**1.076**
11-CORAL	SUZ	LED TUBULAR	9 watts	49
			18 watts	332
		FLUORESCENT	28 watts	568
		SUBTOTAL		**949**
11-CORAL	JPB	LED TUBULAR	18 watts	229
		MERCURY VAPOR	250 W / E40	5
		SUBTOTAL		**234**
11-CORAL	BCB	LED TUBULAR	9 watts	2
			18 watts	237
		MERCURY VAPOR	250 W / E40	5
		TUBULAR SODIUM VAPOR	150 watts	10
		SUBTOTAL		**254**
11-CORAL	MDC	LED TUBULAR	18 watts	580
		BULBOLED	60 W/E27	1
		TUBULAR SODIUM VAPOR	400 watts	16
		SUBTOTAL		**597**

LINE/SERVICE	SEASON	LAMP TYPE	POWER	QUANTITY
11-CORAL	EAST	LED TUBULAR	18 watts	432
		MERCURY VAPOR	250 W / E40	30
		TUBULAR SODIUM VAPOR	150 watts	5
		METALLIC STEAM	400 W / E40	1
		SUBTOTAL		**468**
12-Safira 13-Jade	EGO	LED TUBULAR	9 watts	14
			18 watts	924
		BULBOLED	60 W/E27	477
		TUBULAR SODIUM VAPOR	250 watts	19
		METALLIC STEAM	73 W/E27	7
		SUBTOTAL		**1.441**
12-SAFIRA	USL	LED TUBULAR	9 watts	228
			18 watts	762
		BULBOLED	60 W/E27	104
		MERCURY VAPOR	250 W / E40	24
		METALLIC STEAM	250 W / E40	24
		SUBTOTAL		**1.142**
12-SAFIRA	ERM	LED TUBULAR	9 watts	194
			18 watts	650
		BULBOLED	60 W/E27	93
		TUBULAR SODIUM VAPOR	400 watts	23
		SUBTOTAL		**960**
12-SAFIRA	SMP	LED TUBULAR	9 watts	48
			18 watts	670
		BULBOLED	60 W/E27	138
		METALLIC STEAM	250 W / E40	51
		SUBTOTAL		**907**
12-SAFIRA	JHE	LED TUBULAR	9 watts	240
			18 watts	616
		BULBOLED	60 W/E27	123
		METALLIC STEAM	250 W / E40	24
		SUBTOTAL		**1.003**
12-SAFIRA	ITI	LED TUBULAR	9 watts	536
			18 watts	700
		BULBOLED	60 W/E27	157
		METALLIC STEAM	400 W / E40	78
		SUBTOTAL		**1.471**
12-SAFIRA	JRO	LED TUBULAR	9 watts	32
			18 watts	756
		BULBOLED	60 W/E27	81
		MIXED STEAM	160 W/E27	16
		METALLIC STEAM	250 W / E40	14
		SUBTOTAL		**899**
12-SAFIRA	EMF	LED TUBULAR	18 watts	182
		MERCURY VAPOR	400 W / E40	5
		METALLIC STEAM	400 W / E40	7
		SUBTOTAL		**194**
12-SAFIRA	IQC	LED TUBULAR	18 watts	272
		MERCURY VAPOR	400 W / E40	17
		TUBULAR SODIUM VAPOR	400 watts	1

LINE/SERVICE	SEASON	LAMP TYPE	POWER	QUANTITY
		SUBTOTAL		**290**
12-SAFIRA	ARC	LED TUBULAR	18 watts	228
			36 watts	2
		MIXED STEAM	160 W/E27	3
		MERCURY VAPOR	250 W / E40	10
		SUBTOTAL		**243**
13-JADE AIRPORT EXP.	GCE	LED TUBULAR	9 watts	10
			18 watts	1.072
		BULBOLED	60 W/E27	196
		FLUORESCENT	9 W/G23	18
		TUBULAR SODIUM VAPOR	250 watts	14
		METALLIC STEAM	73 W/E27	7
		SUBTOTAL		**1.317**
13-JADE	AGU	LED TUBULAR	9 watts	58
			18 watts	12
			36 watts	628
		BULBOLED	60 W/E27	129
		FLUORESCENT	28 watts	714
		METALLIC STEAM	50 W / E27	85
		SUBTOTAL		**1.626**
GRAND TOTAL				**35.469**

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

Table 71 - Lighting in yards and workshops

LINE/SERVICE	LOCAL	LAMP TYPE	POWER	QUANTITY
11-CORAL AIRPORT EXP.	Washer Barra Funda	LED TUBULAR	9 watts	0
			18 watts	56
		Projectors	400W	26
		Projectors (Towers)	2.000W	4
		LED HIGHBAY STREET LIGHT FIXTURE	190 watts	0
			200 watts	0
		SUBTOTAL	**19.908W**	**88**
11-CORAL 12-SAFIRA AIRPORT EXP.	New Yard (between Roosevelt and Engenheiro São Paulo)	LED TUBULAR	9 watts	0
			18 watts	02
		LED HIGHBAY STREET LIGHT FIXTURE	190 watts	0
			200 watts	0
			200 watts	0
		LED STREET LIGHT FIXTURE	100 watts	06
		TUBULAR SODIUM VAPOR	250 watts	14
		METALLIC STEAM	70 W/G12	0
			400 W / E40	02
		SUBTOTAL	**4.936W**	**24**
11-CORAL 12-SAFIRA	Workshop and Yard Engenheiro São Paulo	LED TUBULAR	9 watts	0
			18 watts	1494
			36 watts	0
		BULBOLED	12W	82
		MIXED STEAM	160W	80
		MIXED STEAM	250W	10
		MERCURY STEAM	125W	300
		LED PUBLIC LUMINAIRE	50W	04

LINE/SERVICE	LOCAL	LAMP TYPE	POWER	QUANTITY
		LED HIGH BAY (REDONDA)	150W	100
		MERCURY/SODIUM VAPOR	400 W / E40	310
		SUBTOTAL	**219.876 watts**	**2.380**
11-CORAL	Belém Yard	LED TUBULAR	18 watts	2
			36 watts	0
		LED PUBLIC LUMINAIRE	50W	34
		SODIUM VAPOR	250W	34
		SUBTOTAL	**10.236W**	**70**
	Artur Alvim Yard	SODIUM VAPOR	250W	30
		SUBTOTAL	**7.500W**	30
	Manoel Feio Yard	METALLIC STEAM	400W	50
		SUBTOTAL	**20.000W**	50
11-CORAL	Calmon Viana Yard	LED TUBULAR	09W	15
			18W	442
		LED BULBO E27	12W	22
		METALLIC STEAM	250W	32
		SODIUM VAPOR	250W	04
			400W	42
		LED REFLECTOR	300W	06
		SUBTOTAL	**35.955W**	**563**
11-CORAL	Washer Jundiapeba	METALLIC STEAM	250W	20
		SODIUM VAPOR	400W	10
		MERCURY VAPOR	250W	02
		LED TUBULAR	18W	76
		LED BULBO E27	12W	03
		LED SPOTLIGHT	100W	06
		LED SPOTLIGHT	300W	04
		MIXED STEAM	160W	10
			250W	23
		SUBTOTAL	**20.054W**	**154**
11-CORAL	Mogi das Cruzes Yard	LED TUBULAR	09W	08
			18W	54
		LED BULBO E27	12W	04
		METALLIC STEAM	400W	26
		MIXED STEAM	160W	02
			250W	03
		SUBTOTAL	**12.562W**	**97**
11-CORAL	Guaianases Yard	PUBLIC LED	100W	04
			50W	128
		LED SPOTLIGHT	100W	46
		SODIUM VAPOR	250W	34
		LED TUBULAR	18W	100
		LED BULBO E27	12W	23
		MIXED STEAM	250W	02
		SUBTOTAL	**22.476W**	**337**
12-SAFIRA	Engenheiro Goulart Yard	LED BULBO E27	12W	44
		SUBTOTAL	**528W**	**44**
12-SAFIRA	Itaim Paulista Yard	SODIUM VAPOR	400W	15
		LED STREET LIGHT FIXTURE	100W	26

LINE/SERVICE	LOCAL	LAMP TYPE	POWER	QUANTITY
		LED BULBO E27	12W	08
		SUBTOTAL	**8.696W**	**49**
		TOTAL	**556.289W**	**5.193**

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

5 ROLLING STOCK

5.1 TECHNICAL CHARACTERISTICS AND GENERAL INFORMATION

5.1.1 Operational Train Fleet

A total fleet of 107 (one hundred and seven) OPERATIONAL TRAINS will be transferred to the CONCESSIONAIRE, according to the schedule indicated below, for the operation of the LINES. The fleet consists of OPERATIONAL TRAINS formed by 8 (eight) cars each, from 5 (five) different series:

- 08 trains of the 2500 series;
- 36 8000 series trains;
- 35 8500 series trains;
- 09 trains of the 9000 series; and
- 19 trains of the 7000 series.

The situation of the OPERATIONAL TRAINS, containing their mileage and revisions, is listed in Appendix 7 of this EXHIBIT.

The OPERATIONAL TRAINS will be transferred to the CONCESSIONAIRE with the appropriate revisions according to the mileage traveled. If the GRANTING AUTHORITY delivers one or more trains to the CONCESSIONAIRE without the proper review concluded, which is the responsibility of the CONCESSIONAIRE, there will be a recomposition of the economic and financial balance of the AGREEMENT, except in the case of the OPERATIONAL TRAINS indicated in item ii Infrastructure.

The transfer schedule of the OPERATIONAL TRAINS will be as follows:

i. Before the start of the COMMERCIAL OPERATION: 88 (eighty-eight) OPERATIONAL TRAINS, fully covering the 2500, 8000, 8500 and 9000 series;

ii. Before the start of the COMMERCIAL OPERATION: 4 (four) OPERATIONAL TRAINS of the 7000 series;

iii. By the first semester of the 6th. GRANT YEAR, 8 (eight) OPERATIONAL TRAINS of the 7000 series;

iv. By the first semester of the 7th. GRANT YEAR, 7 (seven) 7000 series OPERATIONAL TRAINS.

The OPERATIONAL TRAINS indicated in item ii above must have the general revisions carried out by the CONCESSIONAIRE, according to the MAINTENANCE PLAN to be presented by the CONCESSIONAIRE, pursuant to EXHIBIT II.F

The OPERATIONAL TRAINS indicated in the items i, iii and iv must be received with all maintenance up to date, as provided for in the manual. It is mandatory that general inspections (RGs) have been carried out on the OPERATIONAL TRAINS indicated in the items iii and iv before its transfer to the CONCESSIONAIRE.

With the transfer, the trains will be considered operational only upon validation of their conditions by the INDEPENDENT AUDITOR.

If it is found that any of the 15 (fifteen) trains of the 7000 series, indicated in the items iii and iv above, has been delivered without the performance of the RG or any other maintenance provided for in the manual and in APPENDIX 8 of this EXHIBIT, the CONCESSIONAIRE shall be entitled to postpone the reduction of the intervals between trips without prejudice to its performance evaluation, upon presentation of:

i. Demonstration that it is not possible to carry out the pending RGs on the trains received until the end of the 8th GRANT YEAR;

ii. Review of the SEAT OFFER PLAN, proposing an offer compatible with the available operational fleet; and

iii. Review of the MAINTENANCE PLAN with indication of when pending maintenance will be carried out on the 7000 series trains received without up-to-date maintenance.

The CONCESSIONAIRE must carry out the pending maintenance, with the right to economic and financial rebalancing.

ARTESP, after receiving the revised SEAT OFFER PLAN, will proceed with the revision of the deadlines contained in EXHIBIT III.D for the PERFORMANCE INDICATORS affected by the postponement of the reduction of the breaks.

5.1.2 Fleet Characteristics

On Table 72 the main information and technical characteristics of the series of OPERATIONAL TRAINS that make up the EXISTING INFRASTRUCTURE of ROLLING STOCK are presented.

Table 72 - Technical characteristics and information of the trains by series (2500, 7000, 8000, 8500 and 9000)

TRENS SERIES	2500	7000	8000	8500	9000
Manufacturer	SIFANG	CAF	CAF	CAF	ALSTOM
Year of manufacture	2018 / 2019	2009	2011 / 2012	2015 / 2019	2012 / 2013

TRENS SERIES	2500	7000	8000	8500	9000
Year of operation	2020	2010	2012	2016	2014
Existing Quantities					
Trains - Heritage Units	8	19	36	35	9
Motor Cars	16	76	72	70	18
Cars Trailers	48	76	216	210	60
Operating Unit	170,05m	170,06m	170,06m	170,06m	167,7 m
Commercial unit	170,05m	170,06m	170,06m	170,06m	167,7 m
Height					
Carriage with pantograph raised (max)	6.455 mm	4.555 mm	6.335 mm	6.500 mm	6.500 mm
Car with pantograph lowered	4.415 mm	1.335 mm	4.555 mm	4.555 mm	4.390 mm
Car floor to rail billet	1.335 mm	1.335 mm	1.335 mm	1.335 mm	1.335 mm
Width					
Trolley with running board	3.300 mm	3.300 mm	3.300 mm	3.300 mm	3.300 mm
Doors	1.600 mm	1.600 mm	1.600 mm	1.600 mm	1.600 mm
Number of doors per car	8	8	8	8	8
Passenger Capacity (6 passengers/m²)	1924	1978	2108	2036	2024
Trolley with cab	235	240	238	238	244
Car without cab	251	262	258	258	254
Weight					
Motor car	47,0 t (CM) e 49,0 t (CMC)	45,7 t	43,6 t (CM) e 46,3 t (CMC)	45,1 t (CM) e 47,8 t (CMC)	from 43.2 to 45.5 t
Car Trailer	42,0 t (R1 e R2)	39,4 a 40,5 t	36,0 t a 40,5 t (R3; R2 e R1)	41,5 t (R1) e 39,6 t (R2)	from 38.6 to 39.1 t
Performance					
Maximum commercial speed	90 km/h	90 km/h	90 km/h	90 km/h	90 km/h
Acceleration	0.90 m/s² (0 to 50 km/h)	0.90 m/s² (0 to 50 km/h)	0.90 m/s² (0 to 50 km/h)	0.90 m/s² (0 to 50 km/h)	0.90 m/s² (0 to 50 km/h)
Maximum Deceleration					
Service	1,10 m/s²	1,10 m/s²	1,10 m/s²	1,10 m/s²	1,10 m/s²
Emergency	1,20 m/s²	1,20 m/s²	1,20 m/s²	1,20 m/s²	1,20 m/s²
Feeding					
Type	Catenary	Catenary	Catenary	Catenary	Catenary
Rated voltage	3.000 Vcc	3.000 Vcc	3.000 Vcc	3.000 Vcc	3.000 Vcc
Control Supply Voltage	72 Vcc	72 Vcc	72 Vcc	72 Vcc	72 Vcc
Minimum Enrollment Radius					
In the yards	80 m	80 m	80 m	80 m	80 m
In the lines	180 m	180 m	180 m	180 m	180 m
Brake					
Braking	Disc	Disc	Disc	Disc	Disc
Traction Motor					
Quantity per train (*)	16	16	16	16	16
Maximum power	280 kW	260 kW	260 kW	270 kW	275 kW
Auxiliary Inverter					
Power	180 kVA	180 kVA	180 kVA	180 kVA	180 kVA
Entrance	3.000 Vcc	3.000 Vcc	3.000 Vcc	3.000 Vcc	3.000 Vcc
Output	3Ø 380 Vca / 72 Vcc	220 / 380 Vca and 72 Vcc	220 / 380 Vca and 72 Vcc	220 / 380 Vca and 72 Vcc	220 / 380 Vca and 72 Vcc
Ar-Conditioned					
Supply voltage	380 Vca / 60 Hz	380 Vca / 60 Hz	380 Vca / 60 Hz	380 Vca / 60 Hz	380 Vca / 60 Hz
Control voltage	72 Vcc	72 Vcc	72 Vcc	72 Vcc	72 Vcc
Quantity per lounge/cabin	2 / 1	2 / 1	2 / 1	2 / 1	2 / 1

TRENS SERIES	2500	7000	8000	8500	9000
Refrigeration power in the passenger lounge	75.600 kcal/h	74.700 kcal/h	74.700 kcal/h	74.700 kcal/h	74.700 kcal/h
Cab cooling power	3.440 kcal/h	1.200 kcal/h	1.200 kcal/h	1.200 kcal/h	1.200 kcal/h
Hitch					
Model	Qingdao SRI (CRRC Sifang)	SCHARFENBERG	SCHARFENBERG	SCHARFENBERG	SCHARFENBERG
Type (headboard)	Automatic	Automatic	Automatic	Automatic	Automatic
Type (between trolleys)	Semi-permanent	Semi-permanent	Semi-permanent	Semi-permanent	Semi-permanent
Suspension					
Primary	Molas Helicoidais	Elastomer	Elastomer	Elastomer	Elastomer
Secondary	Air Bag	Air Bag	Air Bag	Air Bag	Air Bag
Trick					
Rigid Base	2,450 mm	2,300 mm	2,300 mm	2,300 mm	2,300 mm
Wheel diameter	915 mm	915 mm	915 mm	915 mm	915 mm
Main Compressor					
Air production (at 10 bar)	1300 l/min	1100 l/min	720 l/min	1300 l/min	720 l/min
Batteries					
Type	Alkaline	Alkaline	Alkaline	Lead Acid	Alkaline
Tension	72 Vcc	72 Vcc	72 Vcc	72 Vcc	72 Vcc
Ability	220 Ah	180 Ah	180 Ah	122 Ah	180 Ah
On-Board Signaling	ATCU / ATO	ATCU / ATO	ATCU / CBTC	ATCU / ATO / CBTC	ATCU

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

5.2 MAINTENANCE AGREEMENTS

CPTM maintains agreements with third parties regarding the provision of continuous and specific services associated with the operation and maintenance of trains, preventive and corrective, for the 8000, 8500 and 9000 series. The CONCESSIONAIRE may request its subrogation in these AGREEMENTs, provided that it does so within the first four (4) months of the PRE-OPERATIONAL PHASE and that there is consent from the agreement third parties.

Table 73 - Summary of current AGREEMENTs

SERIES	AGREEMENT NUMBER	ENTERPRISE	QTY OF TRAINS	OBJECT	REVIEWS	BEGINNING	END TERM	VALUE (R$)
8000	876.408.301.100	CTRENS [1] (PPP)	36 8-Car Trains	Preventive and Corrective Maintenance of Trains with supply of materials and inputs + Lending of Equipment and Areas of CPTM	RA to RG in 36 8-Car Trains	14/06/2010	14/06/2030	769.619.452,14 (data base 27/11/2009)
8500	1.822.300.100	CAF	35 8-Car Trains	Preventive and Corrective Maintenance of Trains with supply of materials and inputs + Lending of Equipment and Areas of CPTM	RA to RF in 35 8-Car Trains	01/06/2023	05/31/2028 (AGREEMENTual Amendme	245.858.500,50 (data base 01/10/2022)

SERIES	AGREEMENT NUMBER	ENTERPRISE	QTY OF TRAINS	OBJECT	REVIEWS	BEGINNING	END TERM	VALUE (R$)
							nt in force)	
9000	LC00424-01	CAF	09 8 Car Trains	Preventive and Corrective Maintenance of Trains with supply of materials and inputs	RA to RE in 09 8-Car Trains	11/09/2024	11/03/2027	42.304.367,56

[1] This administrative concession AGREEMENT may not be subrogated.

Source: CPTM, 2024. Elaborated by: TYLIN-Egis Consortium.

It should be noted that the useful life of the fleet, for any and all series of CPTM OPERATIONAL TRAINS, was defined by CPTM at 40 years, according to CPTM document AT8303-6. Rev G, Appendix 8 of this EXHIBIT .

5.3 TRAINS SERIES

5.3.1 2500 Series

The 8 trains of the 2500 series were delivered from 2019, consisting of 8 cars, featuring free passage between cars (*gangway*), air conditioning, alternating current traction motors, disc brakes, monitoring cameras and a multimedia system for the passenger. Its main differential from the rest of the fleet is that the trains are equipped with luggage racks to accommodate the luggage of passengers using the air terminal (Guarulhos International Airport/São Paulo), and with buttons on the outside of the passenger lounge, for the individual opening of the doors when requested by the passenger on the platform, who, at first, are not operational by CPTM.

The trains started operating on LINE 13 from 2020 to 2021 and are operating on the AIRPORT EXPRESS SERVICE, on the stretch between Palmeiras-Barra Funda and Aeroporto-Guarulhos stations.

The trains do not have structural problems and in general, both the internal part (passenger lounge) and the external part of the box, the driving cabins and other equipment under the platform, are in a good state of conservation and cleanliness.

The trains have low mileage (around 300 thousand km), and maintenance is carried out by CPTM with some support from Temoinsa-Sifang, according to Table 73.

Figure 158 – 2500 Series Train



Source: TYLIN-Egis Consortium, 2023.

Figure 159 – Train Side - 2500 Series



Source: TYLIN-Egis Consortium, 2023.

Figure 160 - View of the passenger and luggage compartment lounge - 2500 Series



Source: TYLIN-Egis Consortium, 2023.

Figure 161 – Flight Deck - 2500 Series



Source: TYLIN-Egis Consortium, 2023.

Table 74 - Revision Map – 2500 Series

PERIOD	TYPE OF REVIEW	GRAND TOTAL		
		PLANNED	PERFORMED	%
SET/2017 A JUL/2023	RA	117	117	100%
	RB	47	47	100%
	RC	8	8	100%
	RD	1	1	100%
	RE	0	0	0%
	RF	0	0	0%
ANNUAL SUM		**173**	**173**	**100%**

Fonte: CPTM, 2023.

5.3.2 7000 Series

The 7000 series trains were delivered in 2009, consisting of 4 cars with driving cabins on both sides, with a stainless steel box structure, air conditioning, alternating current traction motors, disc brakes and monitoring cameras.

The trains do not have structural problems and in general, both the internal part (passenger lounge) and the external part of the box, the driving cabins and other equipment under the platform, are in a good state of conservation and cleanliness.

The trains have mileage above 2.3 million km.

Currently, this fleet of trains is loaned to VIAMOBILIDADE, which will return to CPTM to be assigned to the CONCESSIONAIRE, 19 trains of 8 cars, and any inadequacies in the condition of the trains must be dealt with in accordance with the provisions of Clause 34 of the AGREEMENT.

The scheduled preventive maintenance plan for periodic revisions from the RA Type level to the RF Type level (1,200,000 Km), is being executed by VIAMOBILIDADE.

5.3.3 8000 Series

The 36 trains of the 8000 series were delivered between 2011 and 2013, consisting of 8 cars, with free passage between cars (*gangway*), air conditioning, alternating current traction motors, disc brakes, monitoring cameras and a multimedia system for passengers

The trains do not have structural problems and in general, both the internal part (passenger lounge) and the external part of the box, the driving cabins and other equipment under the platform, are in a good state of conservation and cleanliness.

The trains currently have mileage between 1.1 and 1.5 million km.

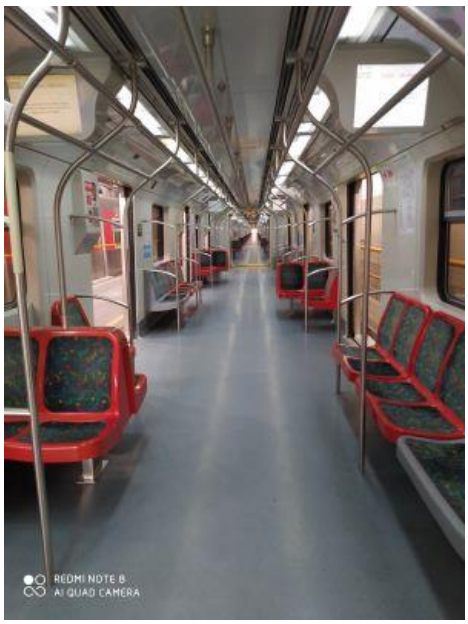
Currently, the 8000 series trains are maintained through AGREEMENT No. 876408301100, signed on 06/14/2010 between CPTM and the Concessionaire CTRENS Companhia de Manutenção with expiration on 06/14/2030, provides for an administrative concession for the provision of preventive and corrective maintenance services, general overhaul of 36 (thirty-six) trains of 8 (eight) cars of the CPTM 8000 series, with the supply of materials and inputs, measured by pre-defined standards of quality, reliability, availability and repair time, according to Table 73.

Figure 162 – 8000 Series Train



Source: TYLIN-Egis Consortium, 2023.

Figure 163 - View of the passenger lounge - 8000 Series



Source: TYLIN-Egis Consortium, 2023.

Figure 164 – Train Side - 8000 Series



Source: TYLIN-Egis Consortium, 2023.

Figure 165 – Flight deck - 8000 Series



Source: TYLIN-Egis Consortium, 2023.

Table 75 - Review Map – 8000 Series

PERIOD	TYPE OF REVIEW	GRAND TOTAL		
		PLANNED	PERFORMED	%
ABRI/2017 TO JUL/2023	RI (FROM NOV/22)	185	185	100%
	RA	1.553	1.553	100%
	RB	741	741	100%

PERIOD	TYPE OF REVIEW	GRAND TOTAL		
		PLANNED	PERFORMED	%
	RC	181	181	100%
	RD	64	64	100%
	RE	12	12	100%
	RF	23	23	100%
ANNUAL SUM		**2.574**	**2.574**	**100%**

Fonte: CPTM, 2023.

5.3.4 8500 Series

The 35 trains of the 8500 series were delivered between 2015 and 2019, consisting of 8 (eight) cars, featuring free passage between cars (*gangway*), air conditioning, alternating current traction motors, disc brakes, monitoring cameras and a multimedia system for passengers

The trains do not have structural problems and in general, both the internal part (passenger lounge) and the external part of the box, the driving cabins and other equipment under the platform, are in a good state of conservation and cleanliness.

The trains currently have mileage around 1 million km.

Currently, the 8500 series trains are maintained through AGREEMENT No. 001822300100, signed on 03/23/2023 (Service Order issued on 06/01/2023) between CPTM and the company CAF Brasil Indústria e Comercio S.A. for a period of 60 (sixty) months, provides for the provision of specialized technical engineering services for preventive and corrective maintenance of 35 (thirty-five) trains of 8 (eight) cars of the CPTM 8500 Series, with the supply of materials and inputs, measured by pre-defined standards of quality, reliability and availability, according to Table 73.

Figure 166 – 8500 Series Train



Source: TYLIN-Egis Consortium, 2023.

Figure 167 - View of the passenger lounge - 8500 Series



Source: TYLIN-Egis Consortium, 2023.

Figure 168 – Train Side - 8500 Series



Source: TYLIN-Egis Consortium, 2023.

Figure 169 – Flight Deck - Series 8500



Source: TYLIN-Egis Consortium, 2023.

Table 76 - Revision Map – 8500 Series

PERIOD	TYPE OF REVIEW	GRAND TOTAL		
		PLANNED	PERFORMED	%
JAN/2017 A JUL/2023	RA	1.504	1.504	100%
	RB	563	563	100%
	RC	93	93	100%
	RD	54	54	100%
	RE	27	27	100%
	RF	0	0	0%
ANNUAL SUM		**2.241**	**2.241**	**100%**

Fonte: CPTM, 2023.

5.3.5 9000 Series

The 09 trains of the 9000 series were delivered between 2015 and 2019, consisting of 8 cars, featuring free passage between cars (*gangway*), air conditioning, alternating current traction motors, disc brakes, monitoring cameras and a multimedia system for passengers.

The trains do not have structural problems and in general, both the internal part (passenger lounge) and the external part of the box, the driving cabins and other equipment under the platform, are in a good state of conservation and cleanliness.

The trains currently have mileage above 1.3 million km.

Currently, the 9000 series trains are maintained by a third-party company through AGREEMENT No. LC00424-01 for preventive and corrective maintenance of 9 trains of 8 (eight) cars of the CPTM 9000 series, with the supply of materials and inputs, entered into between CPTM and CAF Brasil Indústria e Comércio S/A, on 09/11/2024, for a period of 30 months (until 03/11/2027), according to Table 73.

Table 77 - Revision Map – 9000 Series

PERIOD	TYPE OF REVIEW	GRAND TOTAL		
		PLANNED	PERFORMED	%
JAN/17 A JUL/2023	INSP	243	243	100%
	R1	242	242	100%
	R2	126	126	100%
	R3	62	62	100%
	R4	34	34	100%
	R5	11	11	100%
	R6	9	9	100%
	RE	**7**	**7**	100%
ANNUAL SUM		**734**	**734**	**100%**

Fonte: CPTM, 2023.

5.4 Fleet mileage

Performance-related information is presented below, such as the Mean *Kilometer Between Failures* indicator, as well as the mileage traveled by the 2500, 7000, 8000, 8500 and 9000 series train fleet between the years 2018 and 2022. It is noteworthy that the MKBF values presented correspond to the ratio between the mileage traveled by the fleet and the sum of systemic failures that occurred in the measured period, without distinction between urgent and non-urgent occurrences. The following table presents the arithmetic mean of the MKBF of the three years with complete records presented (2020, 2021, and 2022).

Table 78 – Average mileage driven between MKBF fleet failures

FLEET	QTY OF TRAINS	YEARS IN OPERATION	2018	2019	2020	2021	2022	MKBF AVERAGE TOTAL (2020, 2021 and 2022)
2500 Series	8	4	-	-	4.655	16.846	35.339	18.947
7000 Series	40	14	4.900	2.903	4.552	4.610	3.634	4.265
8000 Series	36	14	5.125	5.415	6.374	7.809	10.584	8.256
8500 Series	35	8	4.519	3.479	9.525	12.883	18.036	13.481
9000 Series	9	11	3.355	4.958	5.008	6.696	5.931	5.878

Source: Performance Indicators - Report DO – CPTM, 2023.

Already in the Table 79 The total annual mileage traveled by a train made up of 4 cars is presented. It should be noted that on the LINES the trains are formed by 8 cars.

Table 79 - Total fleet mileage traveled per year

FLEET	2018	2019	2020	2021	2022	AVERAGE ANNUAL KM
2500 Series	0	0	181.184	1.400.154	1.738.668	664.001
7000 Series*	-	-	-	-	-	-
8000 Series	7.949.226	9.692.072	10.225.672	11.832.354	13.192.836	10.578.432
8500 Series	10.197.374	11.889.238	12.474.888	12.129.796	10.383.588	11.414.977
9000 Series	2.269.858	1.723.446	2.705.611	3.642.814	3.408.793	2.750.104

*Information not passed on by CPTM.

Source: CPTM, 2023. Elaborated by: TYLIN-Egis.

5.5 Guidelines for fleet maintenance

The guidelines for the maintenance of the fleet of 2500, 7000, 8000, 8500 and 9000 series trains are set out in EXHIBIT II.F.

6 SIGNALLING SYSTEMS, TELECOMMUNICATIONS AND EQUIPMENT IN STATIONS

6.1 SIGNAGE

The signaling and control systems are responsible for ensuring the safe movement of trains at operational speed.

The current signaling systems in use on the LINES are described in the Table 80. All installed systems are operated by detection of occupation by fixed blocks, whose extension varies from 250 meters to 1,200 meters.

Table 80 - Characterization of the signaling system of each LINE – Systems

LINE	SYSTEM	MAKER		INSTALLATION DATE
		FIELD	SUPERVISION AND CONTROL	
11	ATS / ATC / ATP	U&S UNION SWITCH / ALSTOM/ BOMBARDIER / SIEMENS	ALSTOM	60'S AND 70'S / 90'S And 2000'S
12	ATS / ATC	WABCO BRAZIL	ALSTOM	THE 60'S AND 70'S/ 90/2000
13	ATP + ATO ("CBTC")	SIEMENS	SIEMENS	2018

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

The main equipment of the signaling system of the LINES are presented in the Table 81.

Table 81 - Main field equipment of the signaling system

EQUIPMENT LIST	LINE 11	LINE 12	LINE 13	TOTAL
BUNGALOW / RENTAL / HOUSE / RENTAL BOX	208	97	42	347
TRACK CIRCUIT	277	163	64	504
SUPERVISED LEVEL CROSSINGS	7	0	0	7
SIGNALMEN	187	149	24	360
KEY MACHINES	121	73	22	216
IMPEDANCE COILS	554	326	128	1.008
TOTAL EQUIPMENT	**1.354**	**808**	**280**	**2.442**

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

It should be noted that LINE 11, in terms of technological platform, is the most complex, having 4 different patterns or models of interlocks (EBILOCK, WABCO, CMT and ROUTE CABIN). There is a AGREEMENT for the supply and installation of the CBTC signaling system for lines 10-Turquoise and 11-Coral (AGREEMENT No. 812709011100 – Turquoise Consortium), which has been paralyzed since February 2024, and whose scope involves Signaling, Telecommunications (STO and Digital Radio on line 10-Turquoise and LINE 11, and Telephony on Line 10-Turquoise). In the execution of this AGREEMENT for signaling, most of the Key Machines have already been replaced by MD2000 and signalmen by new ones, according to the quantities indicated in the table below, and the execution of the remaining scope by the Contractor should not be considered by the CONCESSIONAIRE. They were built *Houses,* where the signaling equipment is already assembled, and infrastructure and the laying of cables and fibers were partially done. There is also Telecommunications in the scope that will be dealt with in item 6.3.

Table 82 - Characterization of the signaling system of each LINE – Field equipment

LINE	KEY MACHINE		IMPEDANCE TUBE		TRACK CIRCUIT					SIGNS	
	MODEL	QTY	MODEL	QTY	STRETCH	*DESIGN HEADWAY* (MIN)	MODEL	QTY	AVERAGE LENGTH (M)	MAKER	QTY
11	M23-A	20	COBRASMA/ FRESINBRA	554	LUZ - WATER	3	AC e AF	277	400	BOMBARDIER FRESINBRA ALSTOM	187
	HT-20	7			GUA - EAST	5 a 8	AC		1.200		
	MD2000	94									
12	UNISTAR HR	11	GRS	326	BRA - CVN	3	AC	163	530	BOMBARDIER FRESINBRA ORBE SINAL PONTO	149
	HT-20	6									
	M23-A	43									
	M3	7									
	M3-A	6									
13	UNISTAR HR	22	GRS	128	EGO - AGU	3	OF	64	350	SIEMENS	24

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

Table 83 - Characterization of the signaling system of each LINE – Interlocks

LINE	STRETCH	INTERLOCKING	SYSTEM	MAKER	INSTALLATION DATE	CCO CONTROL
11	LUZ – BRÁS	MICROPROCESSED	EBILOCK	BOMBARDIER	2010 DECADA	ALSTOM
	BRÁS – TATUAPÉ	ELECTROMECHANICAL	RELÉ	GRS	1970 DECADA	ALSTOM
	SEBASTIÃO GUALBERTO - ARTUR ALVIM	ELECTROMECHANICAL	RELÉ	WESTINGHOUSE	1980 DECADA	ALSTOM
	ITAQUERA - GUAIANASES	MICROPROCESSED	CMT	ALSTOM	2000 DECADA	ALSTOM
	ANTÔNIO GIANETTI - ESTUDANTES	ELECTROMECHANICAL	RELÉ	WESTINGHOUSE	1980 DECADA	ALSTOM
12	BRÁS	MICROPROCESSED	EBILOCK	BOMBARDIER	2010 DECADA	ALSTOM
	BRÁS – TATUAPÉ	ELECTROMECHANICAL	RELÉ	GRS	1970 DECADA	ALSTOM
	SEBASTIÃO GUALBERTO - CALMON VIANA	ELECTROMECHANICAL	RELÉ	WESTINGHOUSE	1980 DECADA	ALSTOM
13	ENG GOULART - AEROPORTO-GUARULHOS	MICROPROCESSED	WESTRACE	SIEMENS	2010 DECADA	SIEMENS

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

With reference to LINE 12, in terms of technological platform, it has 1 single interlocking standard, based on relays.

LINE 13, in terms of automation, meets the criteria of GoA2 (level 2 automation). However, because the trains of LINE 13 continue their route on LINE 11 and LINE 12, the presence of a driver on the train is mandatory.

In Table 84 the electronics equipment that makes up the EXISTING INFRASTRUCTURE are listed.

Table 84 - Electronics equipment

DESCRIPTION	QTY	MAKER	MODEL	YEAR MANUFACTURE	VENUE / LINE
EQUIPMENT IN THE ELECTRONICS LABORATORY – LAPA					
ATCU TEST GIGA (ON-BOARD ATC)	2	ALSTOM	NOT APPLICABLE	2005	LAPA/ ELECTRONICS LABORATORY SERVES ALL LINES
EQUIPMENT IN THE SIGNALING LABORATORY – LAPA					
TEST GIGA "CMT" ALSTOM	1	ALSTOM	NOT APPLICABLE	2008	SIGNALING LABORATORY / ATTENDS LINE 11-CORAL

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

6.2 Control and Operation Center

Currently, the Centralized Control Systems of the LINES are located in the CCO of Brás, and the SCC of LINE 11 and LINE 12 are integrated into a single SCC and are supplied by Alstom in the 2000s. It is worth mentioning that there is a agreement (No. 084721009-100) in progress with Alstom to separate the SCC from LINE 12 and make it independent, which is effective on 03/01/2025. In addition, the supply of a new SCC for LINE 11 is provided for in the Signaling AGREEMENT No. 812709011100, previously mentioned, in item 6.1. Both agreements have been paralyzed since February 2024 and the execution of the remaining scope by the contractor should not be considered by the CONCESSIONAIRE.

The SCC of LINE 13 is independent, supplied by Siemens and is in operation.

Since 2002, CPTM's CCO has had the Integrated Operation and Maintenance Control System – SICOM, which allows the registration of operational occurrences on the lines, the registration/control of failures (corrective maintenance) and, finally, the registration of maintenance actions (service order).

6.3 TELECOMMUNICATIONS

6.3.1 Optical Transmission System (STO)

The structured cabling system promotes the physical medium for data transmission between all stations, terminals, power substations, yards and administrative and operational areas, necessary for the operation of the LINES.

Each LINE has its own cabling and there is no sharing with any government or private agencies, and the main characteristics of each LINE are presented below:

- LINE 11: 12-pair single-mode fiber optic cable, with more than 20 years installed, thrown in envelopes and profiled along the tracks.

- LINE 12: 36-pair single-mode fiber optic cable, more than 14 years old, thrown in envelopes and profiled along the tracks.

- LINE 13: 2x72 pair single-mode fiber optic cable (two 72-pair cables), with 9 years installed, launched in trays and profiled along the tracks.

The transmission system is 100% operational.

It is worth mentioning that there is currently a agreement for the supply and installation of the signaling system for line 10-Turquoise and LINE 11 (agreement No. 812709011100 – Turquoise Consortium), which has been paralyzed since February 2024 and whose scope also involves Telecommunications (STO and Digital Radio on line 10-Turquoise and LINE 11, and Telephony on Line 10-Turquoise). In the execution of this agreement, an STO was provided on LINE 11, which is assembled in the technical rooms as well as the infrastructure and laying of cables and fibers on the stretch to Suzano, but the systems were not tested or commissioned. The digital radio has not yet been supplied and the execution of the remaining scope by the contractor should not be considered by the CONCESSIONAIRE.

Table 85 - Optical transmission system

LINE	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
11-CORAL	NEC TECHNICAL ROOM - BRÁS STATION	STO NEC SERIES 6000; 240 CHANNELS; 20 SITES; 58 KM SINGLE MODE FIBER OPTIC CABLES 8 F.O.
12-SAFIRA	NEC TECHNICAL ROOM - BRÁS STATION	STO ABB FOX 515; 2XSTM 4 CHANNELS (155M) (*); 17 SITES; 47KM SINGLE MODE FIBER OPTIC CABLES 36 F.O
13-JADE	TECHNICAL ROOM - ENG. GOULART STATION	STO NOKIA; 7210 SAS R6; CANAIS10 GIGA MPLS; 6 SITES; 57 KM SINGLE MODE FIBER OPTIC CABLES 72 F.O

Fonte: CPTM, 2023.

6.3.2 Radio Communication System

In room 114 (CCO) and room 05/06 NEC (technical room of Brás station), the mobile communication system (radiocommunication) is operational and the agreemented modernization (agreement No. 0061223061-00 – ALCON and agreement No. 0167223061-00 – SEAL Telecom) for the system has been carried out - modernization of communication links, served by digital microwave radios, based on an open standard radiocommunication solution for critical missions, supplying medium and low capacity transmissions, supporting different capacities of E1 tributary and Ethernet data transmission. Newly installed microwave network.

Table 86 -Radio communications

ITEM	LOCATION	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
NEC REDUNDANT RADIO OPTICAL SYSTEM - LINE 11	ESTUDANTES STATION	LINE 11 - ESTUDANTES STATION	COMPOSED OF 02 DIGITAL RADIO TRANSMITTER / RECEIVER, 1 BRANCH, 2 BASE BAND AND 1 ANTENNA
NEC REDUNDANT RADIO OPTICAL SYSTEM - LINE 11	BRÁS STATION	LINE 11 - NEC ROOM	COMPOSED OF 02 DIGITAL RADIO TRANSMITTER / RECEIVER, 1 BRANCH, 2 BASE BAND AND 1 ANTENNA
EFACEC REDUNDANT OPTICAL SYSTEM RADIO - LINE 07	BRÁS STATION	LINE 11 - NEC ROOM	ALCATEL BRAND, COMPOSED OF 1 USCC 2 XPS UR10A, 2 RAC 30V3, 1 AUX, 1 NPC, 1NCC, 1 DAC 1X1550 AND 1 FAN
NERA REDUNDANT OPTICAL SYSTEM RADIO - LINE 12	ESTUDANTES STATION	LINE 11 - ESTUDANTES STATION	COMPOSED OF 1 IFU, 1 SU, 2 LIU, 2 RIU, 1 FAN, 2 ODU AND 1 ANTENNA
NERA REDUNDANT OPTICAL SYSTEM RADIO - LINE 12	BRÁS STATION	LINE 11 - NEC ROOM	COMPOSED OF 1 IFU, 1 SU, 2 LIU, 2 RIU, 1 FAN, 2 ODU AND 1 ANTENNA
ATLAS RADIO SYSTEM/TRAIN LINE 13	CECAP STATION	LINE 13 - TELECOM ROOM	COMPOSED OF 08 ATLAS 1200 P25 STATION RADIO, 2 SAMLEX SOURCES, 2 DELTA UPS, 2 DUPLEXER, 2 MULTICOUPLER, 6 HYBRID, 2 TELESCOPIC TRAYS, 1 ERB EFJ ATLAS 1200 REPEATER, 1 SWITCH, 1 PATCH PANEL, 1 SERVER AND 2 ANTENNAS
RADIO/TRAIN SYSTEM LINES 11 AND 12	REPEATER GUAIANASES1	LINE 11 - GUAIANASES REPEATER	COMPOSED OF 6 TB 9100 - TAIT, 1 AMDII MUX, 1 SUPERSTAR MICROWAVE, 2 ODU, 2 MICROWAVE ANTENNAS AND 1 SWITCH
RADIO/TRAIN SYSTEM LINES 11 AND 13	BRÁS STATION	LINE 11 - NEC ROOM	CONSISTING OF 7 TB 9100 - TAIT, 1 MUX AMDII, 2 SUPERSTAR MICROWAVES, 4 ODU, 4 MICROWAVE ANTENNAS AND 2 SWITCHES

1Located outside the right-of-way at Rua Marambainha 37, Guaianases, São Paulo-SP.

Fonte: CPTM, 2023.

6.3.3 Telephone System – Telephone Exchanges

The system is operational and preventive and corrective maintenance is being carried out by CPTM's own teams.

The equipment of LINE 11 and LINE 12 have been in operation for more than 10 years and there is a diversity of plants/equipment, such as Panasonic, NEC, Philips and Meridian.

The equipment of LINE 11 and LINE 12 are properly conditioned and installed. The equipment of LINE 13 has been in continuous operation for approximately 5 (five) years and well conditioned.

Table 87 - Telephony – Telephone exchanges

LOCATION	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
PALMEIRAS-BARRA FUNDA STATION	BARRA FUNDA STATION TECHNICAL ROOM	HYBRID TELEPHONE EXCHANGE, PANASONIC D1232, 04 DIGITAL EXTENSIONS; 08 ANALOG
LUZ STATION	TELECOM SECTOR. LUZ - LUZ TELEPHONE EXCHANGE ROOM (GATE 7)	HYBRID TELEPHONE EXCHANGE, ALCATEL, OMNI PCX CRYSTAL, 32 DIGITAL EXTENSIONS; 498 ANALOG
LUZ STATION	PLATARFORMA TECHNICAL ROOM 4	HYBRID TELEPHONE EXCHANGE, PHILIPS MODEL IS3030, 15 DIGITAL EXTENSIONS; 80 ANALOG
BRÁS STATION	TELECOM TECHNICAL ROOM BRÁS STATION	HYBRID TELEPHONE EXCHANGE, ALCATEL, OMNI PCX CRYSTAL, 224 DIGITAL AND 820 ANALOG EXTENSIONS
BRAS STATION	LINE 11 - TECHNICAL ROOM 5 AND 6 BRÁS STATION	HYBRID TELEPHONE EXCHANGE, PHILIPS MODEL IS3030, 32 DIGITAL EXTENSIONS; 96 ANALOG
BRÁS STATION	LINE 11 - TECHNICAL ROOM 5 AND 6 BRÁS STATION	HYBRID TELEPHONE EXCHANGE, PANASONIC KXTD; 32 DIGITAL EXTENSIONS; 32 ANALOG
ITAQUERA STATION	LINE 11 - TECHNICAL ROOM ITAQUERA STATION	HYBRID TELEPHONE EXCHANGE, PHILIPS MODEL IS3030, 16 DIGITAL EXTENSIONS; 32 ANALOG
DOM BOSCO STATION	LINE 11 - TECHNICAL ROOM DOM BOSCO STATION	HYBRID TELEPHONE EXCHANGE, PHILIPS MODEL IS3030, 16 DIGITAL EXTENSIONS; 32 ANALOG
GUAIANASES STATION	LINE 11 - TECHNICAL ROOM GUAIANASES STATION	HYBRID TELEPHONE EXCHANGE, PHILIPS MODEL IS3030, 16 DIGITAL EXTENSIONS; 32 ANALOG
JOSÉ BONIFÁCIO STATION	LINE 11 - TECHNICAL ROOM JOSÉ BONIFÁCIO STATION	HYBRID TELEPHONE EXCHANGE, PHILIPS MODEL IS3030, 16 DIGITAL EXTENSIONS; 32 ANALOG
POÁ STATION	LINE 11 - TECHNICAL ROOM POÁ STATION	HYBRID TELEPHONE EXCHANGE, IMPACTING 220, 4 DIGITAL EXTENSIONS; 68 ANALOG
SUZANO STATION	LINE 11 - TECHNICAL ROOM SUZANO STATION	HYBRID TELEPHONE EXCHANGE, KXTDE 600, 16 DIGITAL EXTENSIONS; 96 ANALOG
USP LESTE STATION	LINE 12 - TECHNICAL ROOM USP LESTE STATION	HYBRID TELEPHONE EXCHANGE, ALCATEL, COMMON OMNI PCX, 8 DIGITAL EXTENSIONS; 48 ANALOG
COMENDADOR ERMELINO STATION	LINE 12 - TECHNICAL ROOM COMENDADOR ERMELINO STATION	HYBRID TELEPHONE EXCHANGE, ALCATEL, COMMON OMNI PCX, 8 DIGITAL EXTENSIONS; 48 ANALOG
JARDIM HELENA STATION	LINE 12 - TECHNICAL ROOM JD HELENA STATION	HYBRID TELEPHONE EXCHANGE, ALCATEL, COMMON OMNI PCX, 8 DIGITAL EXTENSIONS; 48 ANALOG
ITAIM PAULISTA STATION	LINE 12 - ITAIM PAULISTA STATION TECHNICAL ROOM	HYBRID TELEPHONE EXCHANGE, ALCATEL, COMMON OMNI PCX, 8 DIGITAL EXTENSIONS; 48 ANALOG
JARDIM ROMANO STATION	LINE 12 - TECHNICAL ROOM JD ROMANO STATION	HYBRID TELEPHONE EXCHANGE, ALCATEL, COMMON OMNI PCX, 8 DIGITAL EXTENSIONS; 48 ANALOG
SÃO MIGUEL PAULISTA STATION	LINE 12 - TECHNICAL ROOM SÃO MIGUEL PAULISTA STATION	HYBRID TELEPHONE EXCHANGE, SIEMENS, HIPATH3800, 16 DIGITAL EXTENSIONS; 64 ANALOG
CALMON VIANA STATION	LINE 12 - TECHNICAL ROOM CALMON VIANA STATION	HYBRID TELEPHONE EXCHANGE, ALCATEL, OMNI PCX CRYSTAL, 32 DIGITAL EXTENSIONS; 224 ANALOG

LOCATION	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
PALMEIRAS-BARRA FUNDA STATION	BARRA FUNDA STATION TECHNICAL ROOM	HYBRID TELEPHONE EXCHANGE, PANASONIC D1232, 04 DIGITAL EXTENSIONS; 08 ANALOG
LUZ STATION	TELECOM SECTOR. LUZ - LUZ TELEPHONE EXCHANGE ROOM (GATE 7)	HYBRID TELEPHONE EXCHANGE, ALCATEL, OMNI PCX CRYSTAL, 32 DIGITAL EXTENSIONS; 498 ANALOG
LUZ STATION	PLATARFORMA TECHNICAL ROOM 4	HYBRID TELEPHONE EXCHANGE, PHILIPS MODEL IS3030, 15 DIGITAL EXTENSIONS; 80 ANALOG
ENG. GOULART STATION	LINE 13 - TECHNICAL ROOM ENG. GOULART STATION	HYBRID TELEPHONE EXCHANGE, PANASONIC KX NS500,10 DIGITAL EXTENSIONS; 32 ANALOGUE; 32VOIP
CECAP STATION	LINE 13 - TECHNICAL ROOM CECAP STATION	HYBRID TELEPHONE EXCHANGE, PANASONIC KX NS500,10 DIGITAL EXTENSIONS; 16 ANALOGUE; 16VOIP
AEROPORTO-GUARULHOS STATION	LINE 13 - TECHNICAL ROOM GUARULHOS AIRPORT STATION	HYBRID TELEPHONE EXCHANGE, PANASONIC KX NS500,10 DIGITAL EXTENSIONS; 16 ANALOGUE; 16VOIP

Fonte: CPTM, 2023.

6.3.4 Multimedia Systems (SMM)

The systems are operational and maintained by CPTM's technical staff.

Table 88 -Chronometry

LOCATION	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
BRÁS STATION	LINE 11 - BRÁS STATION	GEORGY TIMING BRAND, RD 1200, 01 CENTRAL, 50 WATCHES
USP LESTE STATION	LINE 12 - USP LESTE STATION	APEL BRAND, CHG 01, 01 CENTRAL AND 18 WATCHES
COMENDADOR ERMELINO STATION	LINE 12 - COMENDADOR ERMELINO STATION	APEL BRAND, CHG 01, 01 CENTRAL AND 18 WATCHES
SÃO MIGUEL STATION	LINE 12 - SÃO MIGUEL STATION	SPIDER BRAND, 01 CENTRAL AND 18 WATCHES
JARDIM HELENA STATION	LINE 12 - JARDIM HELENA STATION	APEL BRAND, CHG 01, 01 CENTRAL AND 18 WATCHES
ITAIM STATION	LINE 12 - ITAIM STATION	APEL BRAND, CHG 01, 01 CENTRAL AND 18 WATCHES
JARDIM ROMANO STATION	LINE 12 - JARDIM ROMANO STATION	DIMEP BRAND, 01 CENTRAL AND 05 WATCHES
MANOEL FEIO STATION	LINE 12 - MANOEL FEIO STATION	DIMEP BRAND, 01 CENTRAL AND 05 WATCHES
ITAQUAQUECETUBA STATION	LINE 12 - ITAQUAQUECETUBA STATION	DIMEP BRAND, 01 CENTRAL AND 07 WATCHES
ARACARÉ STATION	LINE 12 - ARACARÉ STATION	DIMEP BRAND, 01 CENTRAL AND 04 WATCHES
ITAQUERA STATION	LINE 11 - ITAQUERA STATION	BRAND GEORGY TIMING, RD 1000, 01 TIME CENTER, 20 WATCHES
DOM DOSCO STATION	LINE 11 - DOM DOSCO STATION	GEORGY TIMING BRAND, RD 1000, 01 TIME CENTER, 15 WATCHES

LOCATION	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
JOSÉ BONIFÁCIO STATION	LINE 11 - JOSÉ BONIFÁCIO STATION	GEORGY TIMING BRAND, RD 1000, 01 TIME CENTER, 15 WATCHES
GUAIANASES STATION	LINE 11 - GUAIANASES STATION	GEORGY TIMING BRAND, RD 1000, 01 TIME EXCHANGE, 24 WATCHES
GIANETTI STATION	LINE 11 - GIANETTI STATION	DIMEP BRAND, 01 CENTRAL AND 05 WATCHES
FERRAZ DE VASCONCELOS STATION	LINE 11 - FERRAZ DE VASCONCELOS STATION	SISTEMATCH BRAND, 01 CENTRAL AND 06 CLOCKS
POÁ STATION	LINE 11 - POÁ STATION	APEL BRAND, 01 CENTRAL AND 13 WATCHES
CALMON VIANA STATION	LINE 11 - CALMON VIANA STATION	DIMEP BRAND, 01 CENTRAL AND 05 WATCHES
SUZANO STATION	LINE 11 - SUZANO STATION	APEL BRAND, 01 CENTRAL AND 27 WATCHES
JUNDIAPEBA AIRPORT	LINE 11 - JUNDIAPEBA STATION	DIMEP BRAND, 01 CENTRAL AND 05 WATCHES
BRÁS CUBAS STATION	LINE 11 - BRÁS CUBAS STATION	DIMEP BRAND, 01 CENTRAL AND 05 WATCHES
MOGI DAS CRUZES STATION	LINE 11 - MOGI DAS CRUZES STATION	DIMEP BRAND, 01 CENTRAL AND 08 WATCHES
ESTUDANTES STATION	LINE 11 - ESTUDANTES STATION	DIMEP BRAND, 01 CENTRAL AND 07 WATCHES
ENGº GOULART STATION	LINE 13 - ENGº GOULART STATION	APEL BRAND, CHG 03, 01 CENTRAL, 02 CONVERTERS, 30 CLOCKS, 06 PDT AND 07 SWITCH
CECAP STATION	LINE 13 - CECAP STATION	APEL BRAND, CHG 03, 01 CENTRAL, 02 CONVERTERS, 40 CLOCKS, 06 PDT AND 07 SWITCH
AIRPORT STATION	LINE 13 - AIRPORT STATION	APEL BRAND, CHG 03, 01 CENTRAL, 02 CONVERTERS, 35 CLOCKS, 06 PDT AND 07 SWITCH

Fonte: CPTM, 2023.

Table 89 -Sound

LOCATION	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
BRÁS STATION	LINE 11 - BRÁS STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 06 AP-PRÉ03 PREAMPLIFIER, 03 AP-SUP01 SUPERVISION, 24 AP-240 AMPLIFIERS, 03 CYCLOTON EQUALIZER, 01 AP-PNL01 CONTROL PANEL 50 SPEAKERS, 01 MICROPHONE AND 176 HORNS
TATUAPÉ STATION	LINE 11 - TATUAPÉ STATION	APEL BRANDS, 01 AP-MAT01 MATRIX, 02 AP-PRÉ03 PREAMPLIFIER, 01 AP SUP01 SUPERVISION, 08 AP-240C AMPLIFIERS, 01 MICROPHONE AND 50 HORNS
USP LESTE STATION	LINE 12 - USP LESTE STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 02 AP-PRÉ03 PREAMPLIFIER, 01 AP-SUP01 SUPERVISION, 09 AP-240X AMPLIFIERS, 02 CYCLOTON EQUALIZER, 01 AP-PNL01 CONTROL PANEL, 01 MICROPHONE AND 148 SPEAKERS
COMENDADOR ERMELINO STATION	LINE 12 - COMENDADOR ERMELINO STATION	APEL BRAND,01 AP-MAT01 MATRIX, 02 AP-PRE AMPLIFIER 03, 01 AP-SUP SUPERVISION 01, 09 AP-240X AMPLIFIERS, 02 CYCLOTRON EQUALIZER, 01 AP-PNL01 CONTROL PANEL, 01 MICROPHONE AND 122 SPEAKERS.
SÃO MIGUEL STATION	LINE 12 - SÃO MIGUEL STATION	BOSCH BRAND, PRASIDEO 3.3, 2 CPU, 01 PRS-NCO-B60 NETWORK CONTROLLER, 03 LBB-4424/10

LOCATION	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
		AMPLIFIERS, 01 LBB-4430/00 CALL CONSOLE AND LBB4432/00 SECTORIZATION KEYBOARD, 60 SPEAKERS AND 16 HORNS
JARDIM HELENA STATION	LINE 12 - JARDIM HELENA STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 02 AP-PRÉ03 PREAMPLIFIER, 01 AP-SUP01 SUPERVISION, 09 AP 240X AMPLIFIERS, 02 CYCLOTRON EQUALIZER, 01 AP-PNL01 CONTROL PANEL, 01 MICROPHONE AND 148 SPEAKERS
ITAIM STATION	LINE 12 - ITAIM STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 02 AP-PRÉ03 PREAMPLIFIER, 01 AP-SUP01 SUPERVISION, 09 AP-240X AMPLIFIERS, 02 CYCLOTRON EQUALIZER, 01 AP-PNL01 CONTROL PANEL, 01 MICROPHONE AND 160 SPEAKERS
JARDIM ROMANO STATION	LINE 12 - JARDIM ROMANO STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 02 AP-PRÉ03 PREAMPLIFIER, 01 SUP01 SUPERVISION, 09 AP-240X AMPLIFIERS, 02 CYCLOTRON EQUALIZER, 01 AP-PNL01 CONTROL PANEL AND 148 BOXES
MANOEL FEIO STATION	LINE 12 - MANOEL FEIO STATION	APEL BRAND, 01 PA-01 PREAMPLIFIER, 02 APEL RTL 400 AMPLIFIERS, 01 MICROPHONE AND 19 HORNS
ITAQUAQUECETUBA STATION	LINE 12 - ITAQUAQUECETUBA STATION	APEL BRAND , 01 PA-01 PRE AMPLIFIER, 02 APEL RTL 400 AMPLIFIERS, 01 MICROPHONE, 1 BOX AND 10 HORNS
ARACARÉ STATION	LINE 12 - ARACARÉ STATION	APEL BRAND, 01 PA-01 PRE AMPLIFIER, 02 DELTA AMPLIFIERS, 01 MICROPHONE, 02 BOX AND 10 HORNS
ITAQUERA STATION	LINE 11 - ITAQUERA STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 02 AP-PRÉ03 PREAMPLIFIER, 02 AP-SUP01 SUPERVISION, 16 AP-240 AMPLIFIERS, 02 RANE EQUALIZER, 01 AP-PNL01 CONTROL PANEL, 01 6 SPEAKER MICROPHONE AND 56 HORNS
DOM DOSCO STATION	LINE 11 - DOM DOSCO STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 02 AP-PRÉ03 PREAMPLIFIER, 02 AP-SUP01 SUPERVISION, 14 AP-240 AMPLIFIERS, 02 RANE EQUALIZER, 01 AP-PNL01 CONTROL PANEL, 01 MICROPHONE, 162 SPEAKERS AND 16 HORNS
JOSÉ BONIFÁCIO STATION	LINE 11 - JOSÉ BONIFÁCIO STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 02 AP-PRE 03 PREAMPLIFIER, 02 AP-SUP01 SUPERVISION, 16 AP-240 AMPLIFIERS, 02 RANE EQUALIZER, 01 AP-PNL01 CONTROL PANEL, 01 MICROPHONE, 156 SPEAKERS AND 30 HORNS
GUAIANASES STATION	LINE 11 - GUAIANASES STATION	APEL BRAND, 01 AP-MAT01 MATRIX, 02 AP-PRÉ03 PREAMPLIFIER, 03 AP-SUP01 SUPERVISION, 19 AP-240 AMPLIFIERS, 02 CYCLOTRON EQUALIZER, 01 AP-PNL01 CONTROL PANEL, 01 MICROPHONE, 153 SPEAKERS AND 30 HORNS.
GIANETTI STATION	LINE 11 - GIANETTI STATION	APEL BRAND, 01 PA-01 PREAMPLIFIER, 02 RTL 400 AMPLIFIERS, 01 MICROPHONE AND 22 HORNS
FERRAZ DE VASCONCELOS STATION	LINE 11 - FERRAZ DE VASCONCELOS STATION	APEL BRAND, 01 PA-01 PREAMPLIFIER, 01 RTL 400 AMPLIFIER, 01 MICROPHONE, AND 13 HORNS

LOCATION	COMPLEMENT TO THE LOCATION OF THE PROPERTY	SYSTEM INFORMATION
POÁ STATION	LINE 11 - POÁ STATION	APEL BRAND, TOA 9000M2 SERIES, 01 SERIAL ETHERNET CONVERTER AP-CES03, 01 CONTROL PANEL, 01 MICROPHONE, 01 APSUP02 SUPERVISION, 03 AP-PRE05 PREAMPLIFIER, 02 CYCLOTRON EQUALIZER, 08 240D AMPLIFIERS, 125 BOXES AND 04 HORNS
CALMON VIANA STATION	LINE 11 - CALMON VIANA STATION	APEL BRAND, 01 PA-01 PRE AMPLIFIER, 01 MICROPHONE, 6 240C AMPLIFIERS, 40 SPEAKERS AND 35 HORNS
SUZANO STATION	LINE 11 - SUZANO STATION	APEL BRAND, TOA 9000M2 SERIES, 01 SERIAL ETHERNET CONVERTER AP-CES03.01 CONTROL PANEL, 01 MICROPHONE, 01 APSUP02 SUPERVISION, 03 AP-PRE05 PREAMPLIFIER, 02 CYCLOTRON EQUALIZER, 16 240D AMPLIFIERS, 125 BOXES AND 04 HORNS
JUNDIAPEBA STATION	LINE 11 - JUNDIAPEBA STATION	APEL BRAND, 01 PA-01 PREAMPLIFIER, 02 RTL 400 AMPLIFIERS, 01 MICROPHONE, 01 BOX AND 22 HORNS
BRÁS CUBAS STATION	LINE 11 - BRÁS CUBAS STATION	APEL BRAND, 01 PA-01 PREAMPLIFIER, 02 RTL 400 AMPLIFIERS, 01 MICROPHONE, 01 BOX AND 20 HORNS
MOGI DAS CRUZES STATION	LINE 11 - MOGI DAS CRUZES STATION	APEL BRAND, 01 PA-01 PRE-AMPLIFIER, 02 RTL 400 AMPLIFIERS, 01 MICROPHONE, 4 BOX 40 HORNS
ESTUDANTES STATION	LINE 11 - ESTUDANTES STATION	APEL BRAND, 01 PA-01 PRE AMPLIFIER, 01 RTL 400 AMPLIFIERS AND 01 DELTA AMPLIFIER, 01 MICROPHONE, 01 BOX AND 24 HORNS
ENGº GOULART STATION	LINE 13 - ENGº GOULART STATION	APEL BRAND, 2 COMPUTERS, 01 AP-RM9012A CONTROL PANEL, 01 MICROPHONE, 01 TOA 9000M2 SERIES,0 2 AP-SUP02E SUPERVISION, 01 SWITCH, 13 240D AMPLIFIERS AND 228 SPEAKERS
CECAP STATION	LINE 13 - CECAP STATION	APEL BRAND, 02 COMPUTERS, 01 AP-RM9012A CONTROL PANEL, 01 MICROPHONE, 01 TOA 9000M2 SERIES, 02 AP-SUP02E SUPERVISION, 01 SWITCH, 13 240D AMPLIFIERS AND 220 SPEAKERS
AIRPORT STATION	LINE 13 - AIRPORT STATION	APEL BRAND, 02 COMPUTERS, 01 AP-RM9012A CONTROL PANEL, 01 MICROPHONE, 01 TOA 9000M2 SERIES, 02 AP-SUP02E SUPERVISION, 01 SWITCH, 13 240D AMPLIFIERS, 200 SPEAKERS AND 10 HORNS

Fonte: CPTM, 2023.

The equipment of LINE 13, in continuous operation for only 5 years, is from the same manufacturer (APEL) as LINE 11 and LINE 12 (AP-240 amplifier), but one generation ahead (AP-240D amplifier). The equipment is well conditioned/installed. The sonofletors, horns and equipment are similar in all seasons.

Table 90 - Blockades at stations

LOCATION	LINE	SYSTEM INFORMATION
PALMEIRAS-BARRA FUNDA STATION	LINE 11	CGA BLOCK = 15; END SAFE = 1; ADVANCIS BLOCK = 10; END SAFE = 1.

LOCATION	LINE	SYSTEM INFORMATION
LUZ STATION	LINE 11	T'TRANS TMA BLOCK = 6; T'TRANS T22 BLOCK = 17; END SAFE = 1; WOLPAC BLOCK = 2; WOLPAC SLIDING DOOR LOCK = 1
BRÁS STATION	LINE 11	CGA BLOCK = 24; TELEMATIC BLOCK LINE C = 03; BLOCKADE; ADVANCIS BLOCK = 03; ADVANCIS END SAFE = 01 END SAFE = 01
TATUAPÉ STATION	LINE 11	TELEMATIC BLOCK LK8 = 08; ADVANCIS BLOCK = 05; SAFE END = 01
USP LESTE STATION	LINE 12	TECNODIG LOCK LINE 12 = 05; SAFE END = 01
COMENDADOR ERMELINO STATION	LINE 12	TECNODIG LOCK LINE 12 = 04; SAFE END = 01
SÃO MIGUEL STATION	LINE 12	TELMATIC BLOCK LK8 = 05; TECNODIG LOCK LINE 11 = 02; SAFE END = 01
JARDIM HELENA STATION	LINE 12	TECNODIG LOCK LINE 12 = 07; SAFE END = 01
ITAIM STATION	LINE 12	TECNODIG LOCK LINE 12 = 10; SAFE END = 01
JARDIM ROMANO STATION	LINE 12	TECNODIG LOCK LINE 12 = 07; SAFE END = 01
MANOEL FEIO STATION	LINE 12	TELEMATICS LOCK LINE C = 04
ITAQUAQUECETUBA STATION	LINE 12	TELEMATIC LOCK LINE C = 05; ADVANCIS LOCK 03
ARACARÉ STATION	LINE 12	TECNODIG LOCK LINE 11 = 04
ITAQUERA STATION	LINE 11	TELEMATIC BLOCK LINE C = 06; TELEMATIC BLOCK LK8 = 11; SAFE END = 02
DOM BOSCO STATION	LINE 11	TELEMATIC BLOCK LK8 = 04; ADVANCIS BLOCK = 02; SAFE END = 01
JOSÉ BONIFÁCIO STATION	LINE 11	TECNODIG LOCK LINE 11 = 08; SAFE END = 01
GUAIANASES STATION	LINE 11	TELEMATIC LOCK LK8 = 16
GIANETTI STATION	LINE 11	BLOAUEIO TECNODIG LINE 11 =03; ADVANCIS BLOCK = 05
FERRAZ DE VASCONCELOS STATION	LINE 11	TELEMATIC LOCK LINE C = 05; ADVANCIS BLOCK = 05; SAFE END = 01
POÁ STATION	LINE 11	TECNODIG LOCK 11 = 03; ADVANCIS BLOCK = 04; SAFE END = 01
CALMON VIANA STATION	LINE 11	TELMATIC BLOCK LINE C = 03;
SUZANO STATION	LINE 11	TELAMATIC BLOCK LINE C = 07; TECNODIG LOCK LINE 11 = 04; SAFE END = 01
JUNDIAPEBA STATION	LINE 11	TELEMATIC LOCK LINE C = 02
BRÁS CUBAS STATION	LINE 11	TECNODIG LOCK LINE 11 = 03

LOCATION	LINE	SYSTEM INFORMATION
MOGI DAS CRUZES STATION	LINE 11	TELEMATIC BLOCK LINE C = 03; ADAVANCIS LOCK = 02
ESTUDANTES STATION	LINE 11	TECNODIG LOCK LINE 11 = 07
ENGº GOULART STATION	LINE 13	THALMATIC BLOCK T22 = 11; SAFE END =1
CECAP STATION	LINE 13	TELEMATIC BLOCK T22 = 12; SAFE END =1
AIRPORT STATION	LINE 13	WOLPAC BLOCK = 13; LOCKING SLIDING DOOR WOLPAC = 02

Fonte: CPTM, 2023.

6.4 OTHER EQUIPMENT IN STATIONS

Table 91 - Motor-generator set in stations

LINE	SEASON	TANK (L)	TYPE	MOTOR-GENERATOR SET				ENGINE		GENERATOR			YEAR MANUFACTURE
				MAKER	KVA	I (A)	CONTROL	MAKER	MODEL	MAKER	MODEL	SERIAL NO.	
11-CORAL	PALMEIRAS-BARRA FUNDA	CPTM DOES NOT HAVE A GENERATOR AT THIS STATION. IT IS MAINTAINED BY THE METRÔ'S MOTOR-GENERATOR GROUP, WHEN NECESSARY.											
11-CORAL	LUZ	2.200	METALLIC	HEIMER	750	1.973	AMF25	DAEWOO	P222LE EAYOA400545 12CIL	HEIMER	ATEC	-	2004
11-CORAL 12-SAFIRA	BRÁS	250	METALLIC	CUMMINS	500	1.312	POWER COMMAND	CUMMINS	NTA-855-G5	CUMMINS	-	-	2001
11-CORAL 12-SAFIRA	BRÁS CCO	1.000	METALLIC	MAQUIGERAL	450	1.180	USCAMAQ	SCANIA	DC12	PATH	GTA	161126	2006
11-CORAL	DON BOSCO	550	METALLIC	STEMAC	250	658	SCA	CUMMINS	NT-855-G6	PATH	GTA	67357	1998
11-CORAL	JOSÉ BONIFÁCIO	550	METALLIC	STEMAC	250	658	SCA	CUMMINS	NT-855-G6	PATH	GTA	67358	1998
11-CORAL	GUAIANASES	550	METALLIC	STEMAC	250	658	BUT	CUMMINS	NT-855-G6 SO:32018	PATH	GTA	67356	1998
11-CORAL	FERRAZ DE VASCONCELOS	250	METALLIC	MAQUIGERAL	246	564	MAQ 18 14L	MWM	6.12T	PATH	GTA 251 AI27	-	2016
11-CORAL	POÁ	250	METALLIC	MAQUIGERAL	246	564	MAQ 18 14L	MWM	6.10T	PATH	GTA 251 AI27	-	2013
11-CORAL	SUZANO	150	METALLIC	CUMMINS	260	630	C200D6	CUMMINS	6CTAA 8.3 G1	STANFORD	UC274H	X18C113449	2018
11-CORAL	JUNDIAPEBA	50	METALLIC	TECMAX	25	65	TG25F	FAW	4DW91-38D	-	ATED	-	2022

LINE	SEASON	TANK (L)	TYPE	MOTOR-GENERATOR SET				ENGINE		GENERATOR			YEAR MANUFACTURE
				MAKER	KVA	I (A)	CONTROL	MAKER	MODEL	MAKER	MODEL	SERIAL NO.	
11-CORAL	ESTUDANTES	250	METALLIC	TRANSMILL	40	105	EL-2623-04	MERCEDES	OM314 343.919.001.163998	PATH	ATE	41	1986
12-SAFIRA	USP LESTE	300	METALLIC	OLYMPIAN	165	433	POWER WIZARD 2.0	PERKINS	2332/1800	LEROY SOMER	-	CL3F7135	2007
12-SAFIRA	COMMANDER ERMELINO	300	METALLIC	OLYMPIAN	165	433	POWER WIZARD 2.0	PERKINS	2332/1800	LEROY SOMER	-	CL3F7134	2007
12-SAFIRA	SÃO MIGUEL PAULISTA	250	METALLIC	MAQUIGERAL	246	564	MAQ 18 14L	MWM	6.10T	PATH	GTA 251 AI27	-	2014
12-SAFIRA	JARDIM HELENA-VILA MARA	300	METALLIC	OLYMPIAN	165	433	POWER WIZARD 2.0	PERKINS	2332/1800	LEROY SOMER	-	CL3F7187	2007
12-SAFIRA	JARDIM ROMANO	300	METALLIC	OLYMPIAN	165	433	POWER WIZARD 2.0	PERKINS	2332/1800	LEROY SOMER	-	CL3F7194	2007
12-SAFIRA	ITAIM PAULISTA	300	METALLIC	OLYMPIAN	165	433	POWER WIZARD 2.0	PERKINS	2332/1800	LEROY SOMER	-	CL3F7136	2007
12-SAFIRA	ITAQUAQUECETUBA	50	METALLIC	TECMAX	25	65	TG25F	FAW	4DW91-38D	-	ATED	-	2022
11-CORAL 12-SAFIRA	CALMON VIANA	250	METALLIC	STEMAC	75	179		MWM	MS3,9T	CRAMACO	G2R	-	2010
12-SAFIRA 13-JADE	ENGENHEIRO GOULART	250	METALLIC	MAQUIGERAL	246	564	MAQ 18 14L	MWM	6.10T	PATH	GTA 251 AI27	-	2017
13-JADE	GUARULHOS CECAP	250	METALLIC	MAQUIGERAL	246	564	MAQ 18 14L	MWM	6.10T	PATH	GTA 251 AI27	-	2017
13-JADE	AEROPORTO-GUARULHOS	200	METALLIC	NEMA	550	1.301		SCANIA	DC13 072nd	PATH	AG10280M140AIB35T	NS 104311657 3 04 18	2018

Fonte: CPTM, 2023.

Table 92 - Escalators in stations

LINE	SEASON	QUANTITY	DAY	MAKER	MODEL	GAP	MOTOR POWER	OBSERVATION
11-CORAL	PALMEIRAS-BARRA FUNDA	7	ER32BFU	OTIS	27BEC	6,72 m	15 kW	SERVICE BY THE METRÕ AGREEMENT
			ER33BFU	OTIS	27BEC	6,72 m	15 kW	
			ER34BFU	OTIS	27BEC	6,72 m	15 kW	
			ER35BFU	OTIS	27BEC	6,72 m	15 kW	
			ER36BFU	OTIS	27BEC	6,72 m	15 kW	
			ER37BFU	OTIS	27BEC	6,72 m	15 kW	
			ER40BFU	TKE	VICTORIA	6,40 m	16.5 kW	TKE-ASSISTED OPERATION

LINE	SEASON	QUANTITY	DAY	MAKER	MODEL	GAP	MOTOR POWER	OBSERVATION
11-CORAL	LUZ	18	ER01LUZ	ATLAS-SCHINDLER	S9300	7,68 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02LUZ	ATLAS-SCHINDLER	S9300	7,68 m	15 kW	
			ER03LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER04LUZ	THYSSENKRUPP	VICTORIA	7,04 m	10.5 kW	
			ER05LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER06LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER07LUZ	THYSSENKRUPP	VICTORIA	7,04 m	10.5 kW	
			ER08LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER09LUZ	THYSSENKRUPP	VICTORIA	7,04 m	10.5 kW	
			ER10LUZ	THYSSENKRUPP	VICTORIA	7,04 m	10.5 kW	
			ER11LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER12LUZ	ATLAS-SCHINDLER	S9300	8,00 m	15 kW	
			ER13LUZ	ATLAS-SCHINDLER	S9300	8,00 m	15 kW	
			ER14LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER15LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER16LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER17LUZ	ATLAS-SCHINDLER	S9300	7,04 m	15 kW	
			ER18LUZ	ATLAS-	S9300	7,04 m	15 kW	

LINE	SEASON	QUANTITY	DAY	MAKER	MODEL	GAP	MOTOR POWER	OBSERVATION
				SCHINDLER				
11-CORAL12-SAFIRA	BRÁS	17	ER01BAS	THYSSENKRUPP	VICTORIA	8,29 m	12 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02BAS	THYSSENKRUPP	VICTORIA	8,29 m	12 kW	
			ER03BAS	THYSSENKRUPP	FT-722	8,29 m	2 x 9 kW	
			ER04BAS	THYSSENKRUPP	FT-722	8,29 m	2 x 9 kW	
			ER05BAS	THYSSENKRUPP	FT-722	8,16 m	2 x 9 kW	
			ER06BAS	THYSSENKRUPP	VICTORIA	8,16 m	12 kW	
			ER07BAS	THYSSENKRUPP	FT-722	8.29 m	2 x 9 kW	
			ER08BAS	THYSSENKRUPP	FT-722	8,29 m	2 x 9 kW	
			ER09BAS	THYSSENKRUPP	VICTORIA	8,00 m	12 kW	
			ER10BAS	THYSSENKRUPP	VICTORIA	8,00 m	12 kW	
			ER11BAS	THYSSENKRUPP	FT-722	7,87 m	16.5 kW	
			ER12BAS	THYSSENKRUPP	FT-722	7,87 m	16.5 kW	
			ER50BAS	OTIS	27 BEC	8,16 m	40 cv	SERVICE THROUGH THE AGREEMENT WITH METRÔ
			ER51BAS	OTIS	27 BEC	8,16 m	40 cv	
			ER53BAS	OTIS	27 BEC	8,16 m	40 cv	
			ER54BAS	OTIS	27 BEC	8,16 m	40 cv	
			ER55BAS	OTIS	27 BEC	8,16 m	40 cv	
11-CORAL12-SAFIRA	TATUAPÉ	6	ER34TAT	VILLARES	M36	6,56 m	25 cv	SERVICE THROUGH THE AGREEMENT WITH METRÔ
			ER36TAT	VILLARES	M36	6,56 m	25 cv	
			ER37TAT	VILLARES	M36	6,56 m	25 cv	
			ER41TAT	VILLARES	M36	6,56 m	25 cv	
			ER42TAT	VILLARES	M36	6,56 m	25 cv	
			ER43TAT	VILLARES	M36	6,56 m	25 cv	

LINE	SEASON	QUANTITY	DAY	MAKER	MODEL	GAP	MOTOR POWER	OBSERVATION
11-CORAL	CORINTHIANS-ITAQUERA	4	ER32ITQ	OTIS	27BEC	6,88 m	30 cv	SERVICE THROUGH THE AGREEMENT WITH METRÔ
			ER33ITQ	OTIS	27BEC	6,88 m	30 cv	
			ER34ITQ	OTIS	27BEC	6,88 m	30 cv	
			ER35ITQ	OTIS	27BEC	6,88 m	30 cv	
11-CORAL	DON BOSCO	4	ER01DOB	THYSSENKRUPP	FT-732	6,72 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02DOB	THYSSENKRUPP	FT-732	6.72 m	15 kW	
			ER03DOB	THYSSENKRUPP	FT-732	6.72 m	15 kW	
			ER04DOB	THYSSENKRUPP	FT-732	6.72 m	15 kW	
11-CORAL	JOSÉ BONIFÁCIO	4	ER01JBO	THYSSENKRUPP	FT-732	7.55 m	16.5 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02JBO	THYSSENKRUPP	FT-732	7.55 m	16.5 kW	
			ER03JBO	THYSSENKRUPP	FT-732	7.55 m	16.5 kW	
			ER04JBO	THYSSENKRUPP	FT-732	7.55 m	16.5 kW	
11-CORAL	FERRAZ DE VASCONCELOS	7	ER01FVC	OTIS	XO21NP-1030-D3-X	6,90 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02FVC	ANLEV	A2T-30CC-10	6,90 m	22 kW	
			ER03FVC	ANLEV	A2T-30CC-10	6,90 m	22 kW	
			ER04FVC	THYSSENKRUPP	VICTORIA	7,57 m	19 kW	
			ER05FVC	THYSSENKRUPP	VICTORIA	7,57 m	19 kW	
			ER06FVC	THYSSENKRUPP	VICTORIA	7,57 m	19 kW	
			ER07FVC	THYSSENKRUPP	VICTORIA	7,57 m	19 kW	
11-CORAL	POÁ	2	ER01POA	OTIS	XOPE-1030-D3-X	7,36 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02POA	OTIS	XOPE-1030-D3-X	7,36 m	15 kW	

LINE	SEASON	QUANTITY	DAY	MAKER	MODEL	GAP	MOTOR POWER	OBSERVATION
11-CORAL	SUZANO	14	ER01SUZ	THYSSENKRUPP	VICTORIA	7.30 m	19 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02SUZ	THYSSENKRUPP	VICTORIA	7,30 m	19 kW	
			ER03SUZ	THYSSENKRUPP	VICTORIA	7,30 m	19 kW	
			ER04SUZ	THYSSENKRUPP	VICTORIA	7.30 m	19 kW	
			ER05SUZ	THYSSENKRUPP	VICTORIA	7.30 m	19 kW	
			ER06SUZ	THYSSENKRUPP	VICTORIA	7.30 m	19 kW	
			ER07SUZ	ESCAL	XDTM-30	7.30 m	11 kW	
			ER08SUZ	ESCAL	XDTM-30	7.30 m	11 kW	
			ER09SUZ	ESCAL	XDTM-30	7.30 m	11 kW	
			ER10SUZ	ESCAL	XDTM-30	7.30 m	11 kW	
			ER11SUZ	ESCAL	XDTM-30	7,30 m	11 kW	
			ER12SUZ	ESCAL	XDTM-30	7,30 m	11 kW	
			ER13SUZ	ESCAL	XDTM-30	7,30 m	11 kW	
			ER14SUZ	ESCAL	XDTM-30	7,30 m	11 kW	
12-Safira13-Jade	ENGENHEIRO GOULART	10	ER01EGO	THYSSENKRUPP	VICTORIA	8,20 m	19 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02EGO	THYSSENKRUPP	VICTORIA	8,20 m	19 kW	
			ER04EGO	THYSSENKRUPP	VICTORIA	8,20 m	19 kW	
			ER05EGO	THYSSENKRUPP	VICTORIA	8,20 m	19 kW	
			ER06EGO	THYSSENKRUPP	VICTORIA	8,20 m	19 kW	
			ER07EGO	THYSSENKRUPP	VICTORIA	8,20 m	19 Kw	
			ER08EGO	THYSSENKRUPP	VICTORIA	8.20 m	19 kW	
			ER09EGO	THYSSENKRUPP	VICTORIA	8.20 m	19 kW	
			ER10EGO	THYSSENKRUPP	VICTORIA	8.20 m	19 kW	
			ER11EGO	THYSSENKRUPP	VICTORIA	8.20 m	19 kW	
12-SAFIRA	USP LESTE	2	ER01USL	THYSSENKRUPP	TUGELA	6.06 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02USL	THYSSENKRUPP	TUGELA	6.06 m	15 kW	

LINE	SEASON	QUANTITY	DAY	MAKER	MODEL	GAP	MOTOR POWER	OBSERVATION
12-SAFIRA	COMMANDER ERMELINO	2	ER01ERM	THYSSENKRUPP	TUGELA	6,40 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02ERM	THYSSENKRUPP	TUGELA	6,40 m	15 kW	
12-SAFIRA	SÃO MIGUEL PAULISTA	4	ER01SMP	OTIS	XO21NP-1030-D3-X	6,18 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02SMP	OTIS	XO21NP-1030-D3-X	6,18 m	15 kW	
			ER03SMP	OTIS	XO21NP-1030-D3-X	6,40 m	15 kW	
			ER04SMP	OTIS	XO21NP-1030-D3-X	6,40 m	15 kW	
12-SAFIRA	JARDIM HELENA-VILA MARA	2	ER01JHE	THYSSENKRUPP	TUGELA	6,90 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02JHE	THYSSENKRUPP	TUGELA	6.90 m	15 kW	
12-SAFIRA	ITAIM PAULISTA	2	ER01ITI	THYSSENKRUPP	TUGELA	5.60 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02ITI	THYSSENKRUPP	TUGELA	5.60 m	15 kW	
12-SAFIRA	JARDIM ROMANO	2	ER01JRO	THYSSENKRUPP	TUGELA	6.37 m	15 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02JRO	THYSSENKRUPP	TUGELA	6.37 m	15 kW	
13-JADE	GUARULHOS CECAP	9	ER01GCE	THYSSENKRUPP	VICTORIA	6.91 m	19 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02GCE	THYSSENKRUPP	VICTORIA	6.91 m	19 kW	
			ER03GCE	THYSSENKRUPP	VICTORIA	7,81 m	19 kW	
			ER04GCE	THYSSENKRUPP	VICTORIA	7,81 m	19 kW	
			ER05GCE	THYSSENKRUPP	VICTORIA	7,81 m	19 kW	
			ER06GCE	THYSSENKRUPP	VICTORIA	7,81 m	19 kW	
			ER07GCE	THYSSENKRUPP	VICTORIA	7.81 m	19 kW	
			ER08GCE	THYSSENKRUPP	VICTORIA	7.81 m	19 kW	
			ER09GCE	THYSSENKRUPP	VICTORIA	7.81 m	19 kW	

LINE	SEASON	QUANTITY	DAY	MAKER	MODEL	GAP	MOTOR POWER	OBSERVATION
13-JADE	AEROPORTO-GUARULHOS	14	ER01AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	MAINTENANCE AGREEMENT WITH MIHL
			ER02AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER03AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER04AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER05AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER06AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER07AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER08AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER09AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER10AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER11AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER12AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER13AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
			ER14AGU	THYSSENKRUPP	VICTORIA	7.51 m	19 kW	
TOTAL		**130**						

Fonte: CPTM, 2023.

Tabela 93 – Elevators in stations

LINHA	SEASON	QUANTITY	DAY	MAKER	MODEL	DRIVE TYPE	ABILITY	NUMBER OF CAMERAS
11-CORAL	PALMEIRAS-BARRA FUNDA	4	EL03BFU	THYSSENKRUPP	SYNERGY	ELECTRIC	560 kg	IT DOES NOT HAVE AN INTERNAL CAMERA IN THE CABIN. 1 UPPER FLOOR CAMERA. 1 LOWER FLOOR CAMERA.
			EL04BFU	VILLARTA	INDIRECT SIDE 2:1	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL05BFU	VILLARTA	INDIRECT SIDE 2:1	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL06BFU	TKE	SYNERGY	ELECTRIC	975 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
11-CORAL	LUZ	5	EL01LUZ	ATLAS-SCHINDLER	SMART	ELECTRIC	600 kg	IT DOES NOT HAVE AN INTERNAL CAMERA IN THE CABIN. 1 UPPER FLOOR CAMERA. 1 INTERMEDIATE FLOOR CAMERA. 1 LOWER FLOOR CAMERA.
			EL02LUZ	ELESERVICE	SCM600	ELECTRIC	600 kg	1 INTERNAL CAMERA IN THE CABIN. DOES NOT HAVE UPPER FLOOR CAMERA. 1 LOWER FLOOR CAMERA.
			EL03LUZ	ELESERVICE	SCM600	ELECTRIC	600 kg	1 INTERNAL CAMERA IN THE CABIN. DOES NOT HAVE UPPER FLOOR CAMERA. 1 LOWER FLOOR CAMERA.
			EL04LUZ	TKE	SYNERGY	ELECTRIC	825 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			PE01LUZ	SCALE	AC11	HYDRAULIC	250 kg	IT DOES NOT HAVE AN INTERNAL CAMERA IN THE CABIN. 1 UPPER FLOOR CAMERA. DOES NOT HAVE LOWER FLOOR CAMERA.

LINHA	SEASON	QUANTITY	DAY	MAKER	MODEL	DRIVE TYPE	ABILITY	NUMBER OF CAMERAS
11-CORAL12-SAFIRA	BRÁS	5	EL01BAS	THYSSENKRUPP	HID MCP 5	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02BAS	THYSSENKRUPP	HID MCP 5	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL03BAS	THYSSENKRUPP	HID MCP 5	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL04BAS	THYSSENKRUPP	HID MCP 5	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL05BAS	ORTOBRÁS	HYDRAULIC	HYDRAULIC	600 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
11-CORAL12-SAFIRA	TATUAPÉ	2	EL01TAT	VILLARTA	INDIRECT SIDE 2:1	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02TAT	VILLARTA	INDIRECT SIDE 2:1	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
11-CORAL	CORINTHIANS-ITAQUERA	1	EL01ITQ	THYSSENKRUPP	HID MCP 7	ELECTRIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
11-CORAL	DON BOSCO	2	EL01DOB	THYSSENKRUPP	HID LADDER CLP	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02DOB	THYSSENKRUPP	HID LADDER CLP	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
11-CORAL	JOSÉ BONIFÁCIO	2	EL01JBO	THYSSENKRUPP	HID LADDER CLP	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02JBO	THYSSENKRUPP	HID LADDER CLP	HYDRAULIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F

LINHA	SEASON	QUANTITY	DAY	MAKER	MODEL	DRIVE TYPE	ABILITY	NUMBER OF CAMERAS
11-CORAL	ANTONIO GIANETTI NETO	2	EL01AGN	GMV-SICMALEVA	2PEM	HYDRAULIC	420 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02AGN	GMV-SICMALEVA	2PEM	HYDRAULIC	420 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
11-CORAL	FERRAZ DE VASCONCELOS	3	EL01FVC	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02FVC	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL03FVC	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
11-CORAL	POÁ	4	EL01POA	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02POA	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL03POA	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL04POA	ANLEV	STEP NSPE 09AS380	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
11-CORAL12-SAFIRA	CALMON VIANA	3	EL01CVN	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02CVN	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL03CVN	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F

LINHA	SEASON	QUANTITY	DAY	MAKER	MODEL	DRIVE TYPE	ABILITY	NUMBER OF CAMERAS
11-CORAL	SUZANO	6	EL01SUZ	SCALE	JXW-VF	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02SUZ	SCALE	JXW-VF	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL04SUZ	SCALE	JXW-VF	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL05SUZ	SCALE	JXW-VF	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL03SUZ	VILLARTA	ESCM 600	ELECTRIC	600 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL06SUZ	VILLARTA	ELECTRIC	ELECTRIC	600 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
12-SAFIRA	USP LESTE	1	EL01USL	THYSSENKRUPP	AMAZON EXPERT XXI	ELECTRIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
12-SAFIRA	COMMANDER ERMELINO	1	EL01ERM	THYSSENKRUPP	AMAZON EXPERT XXI	ELECTRIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
12-SAFIRA	SÃO MIGUEL PAULISTA	2	EL01SMP	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02SMP	OTIS	GEN2 COMFORT	ELECTRIC	630 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
12-SAFIRA	JARDIM HELENA-VILA MARA	1	EL01JHE	THYSSENKRUPP	AMAZON EXPERT XXI	ELECTRIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
12-SAFIRA	ITAIM PAULISTA	1	EL01ITI	THYSSENKRUPP	AMAZON EXPERT XXI	ELECTRIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F

LINHA	SEASON	QUANTITY	DAY	MAKER	MODEL	DRIVE TYPE	ABILITY	NUMBER OF CAMERAS
12-SAFIRA	JARDIM ROMANO	1	EL01JRO	THYSSENKRUPP	AMAZON EXPERT XXI	ELECTRIC	560 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
12-SAFIRA	ITAQUAQUECETUBA	1	EL01IQC	GMV-SICMALEVA	2PEM	HYDRAULIC	420 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
12-Safira13-Jade	ENGENHEIRO GOULART	4	EL01EGO	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02EGO	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL03EGO	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL04EGO	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
13-JADE	GUARULHOS CECAP	4	EL01GCE	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02GCE	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL03GCE	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL04GCE	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F

LINHA	SEASON	QUANTITY	DAY	MAKER	MODEL	DRIVE TYPE	ABILITY	NUMBER OF CAMERAS
13-JADE	AEROPORTO-GUARULHOS	7	EL01AGU	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL02AGU	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL03AGU	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL04AGU	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL05AGU	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL06AGU	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
			EL07AGU	OTIS	GEN2 COMFORT	ELECTRIC	1,000 kg	1 INTERNAL CAMERA IN THE CABIN.1 UPPER FLOOR CAMERA.1 LOWER F
TOTAL		**62**						**181 CAMERAS**

Fonte: CPTM, 2023.

Table 94 - Buildings with fire detection and alarm system

LINE	LOCAL	MAKE/MODEL
11-CORAL	PALMEIRAS-BARRA FUNDA STATION	SDAI BELONGS TO THE METRO
11-CORAL	LUZ STATION	JOHNSON SIMPLEX 4100S
11-CORAL12-SAFIRA	BRÁS STATION	GLOBALFIRE
GENERAL	CCO	GLOBALFIRE
11-CORAL	DOM BOSCO STATION	GLOBALFIRE

LINE	LOCAL	MAKE/MODEL
11-CORAL	JOSE BONIFÁCIO STATION	GLOBALFIRE
11-CORAL	GUAIANASES STATION	GLOBALFIRE
11-CORAL12-SAFIRA	CALMON VIANA STATION	WALMONOFF
11-CORAL	POÁ STATION	BETA FIAMMA
11-CORAL	FERRAZ DE VASCONCELOS STATION	SKYFIRE
11-CORAL	SUZANO STATION	VERIN
12-SAFIRA	USP LESTE STATION	BOSCH/FPA5000
12-SAFIRA	COMENDADOR ERMELINO STATION	BOSCH/FPA5000
12-SAFIRA	JARDIM HELENA-VILA MARA STATION	BOSCH/FPA5000
12-SAFIRA	SÃO MIGUEL PAULISTA STATION	GLOBALFIRE
12-SAFIRA	ITAIM PAULISTA STATION	BOSCH/FPA5000
12-SAFIRA	JARDIM ROMANO STATION	BOSCH/FPA5000
12-Safira13-Jade	ENGENHEIRO GOULART STATION	SKYFIRE
13-JADE	GUARULHOS CECAP STATION	SKYFIRE
13-JADE	GUARULHOS-AIRPORT STATION	SKYFIRE

Fonte: CPTM, 2023.

Table 95 – Hydraulic pumps

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
11-CORAL	PALMEIRAS-BARRA FUNDA STATION	CENTRIFUGAL PUMP	3	POTABLE	OPERATING	-
		SUBMERSIBLE PUMP	2	DRAINAGE	OPERATING	-

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
11-CORAL	LUZ STATION	SUBMERSIBLE PUMP	5	EFFLUENT	OPERATING	-
		SUBMERSIBLE PUMP	6	DRAINAGE	OPERATING	-
		CENTRIFUGAL PUMP	4	FIRE	OPERATING	-
		CENTRIFUGAL PUMP	3	POTABLE	OPERATING	-
11-CORAL12-SAFIRA	TATUAPÉ STATION	BOMBA / MOTOR	1	POTABLE	OPERATIONAL	-
		BOMBA / MOTOR	1	POTABLE	OPERATIONAL	-
11-CORAL	DOM BOSCO STATION	BOMBA / MOTOR	4	POTABLE	OPERATIONAL	-
		BOMBA / MOTOR	2	FIRE	OPERATIONAL	-
11-CORAL	DOM BOSCO TUNNEL	SUBMERSIBLE PUMP (CODE CPTM 075501)	2	DRAINAGE	OPERATING	-
11-CORAL	JOSÉ BONIFÁCIO STATION	BOMBA / MOTOR	2	POTABLE	OPERATING	-
		BOMBA / MOTOR	2	FIRE	OPERATING	-
11-CORAL	JOSÉ BONIFÁCIO TUNNEL	SUBMERSIBLE PUMP (CODE CPTM 075501)	2	DRAINAGE	OPERATING	-
11-CORAL	GUAIANASES STATION	BOMBA / MOTOR	2	POTABLE	OPERATING	-
		BOMBA / MOTOR	2	FIRE	OPERATING	-
		SUBMERSIBLE PUMP (CODE CPTM 075544)	4	SEWAGE	-	3 INOPERATIVE PUMPS
11-CORAL	ANTÔNIO GIANETTI NETO STATION	CENTRIFUGAL PUMP (CODE CPTM 020222)	2	POTABLE	-	1 INOPERATIVE BOMB
11-CORAL	FERRAZ DE VASCONCELOS STATION	CENTRIFUGAL PUMP (CODE CPTM 020222)	2	POTABLE	OPERATING	-
		CENTRIFUGAL PUMP (CODE CPTM 020222)	2	REUSE	INOPERATIVE	2 INOPERATIVE PUMPS
		BOMBA / MOTOR	2	FIRE	OPERATING	-
11-CORAL	POÁ STATION	CENTRIFUGAL PUMP (CODE CPTM 020222)	2	POTABLE	OPERATING	-
		CENTRIFUGAL PUMP (CODE CPTM 020222)	2	REUSE	INOPERATIVE	2 INOPERATIVE PUMPS
		BOMBA / MOTOR	2	FIRE	OPERATING	-

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
11-CORAL	CALMON VIANA STATION	CENTRIFUGAL PUMP (CODE CPTM 020222)	2	POTABLE	-	1 INOPERATIVE BOMB
		MOTOR PUMP	2	FIRE	OPERATING	SMALL LEAK IN ONE OF THE PUMPS
11-CORAL	SUZANO STATION	CENTRIFUGAL PUMP (CODE CPTM 020222)	2	POTABLE	OPERATING	-
		CENTRIFUGAL PUMP (CODE CPTM 020222)	2	REUSE	INOPERATIVE	2 INOPERATIVE PUMPS
		MOTOR PUMP	2	FIRE	OPERATING	-
		SUBMERSIBLE PUMP (CODE CPTM 075544)	2	DRAINAGE	OPERATING	-
11-CORAL	JUNDIAPEBA STATION	SUBMERSIBLE PUMP (CPTM CODE 069850)	1	DRAINAGE	OPERATING	USED IN THE WASHER
12-SAFIRA	ITAQUAQUECETUBA STATION	BOMBA HIDRAULICA SCHNEIDER MOD. BC-92SHB POT.3CV 220/380V TRIF. N/S:6408167761003	1	POTABLE	OPERATIONAL	-
12-SAFIRA	JARDIM ROMANO STATION	BOMBA KSB HYDROBLOC C200NT Q: 2 A 10M³/H – MCA: 38 A 28M, THREE-PHASE MOTOR 220/380 V, 60 HZ, 3450 RPM	1	POTABLE	OPERATIONAL	-
		BOMBA KSB HYDROBLOC C200NT Q: 2 A 10M³/H – MCA: 38 A 28M, THREE-PHASE MOTOR 220/380 V, 60 HZ, 3450 RPM	1	POTABLE	OPERATIONAL	-
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		KSB MEGABLOC PUMP, IMPELLER DIAMETER 169 MM	1	FIRE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.
		KSB MEGABLOC PUMP, IMPELLER DIAMETER 169 MM	1	FIRE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
12-SAFIRA	ITAIM PAULISTA STATION	MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED IMPELLER, CENTRIFUGAL TYPE – SINGLE-STAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/4", SUCTION DIAMETER 1.1/2", POWER 3 HP, MAXIMUM FLOW RATE 21.7 M^3/H AND MINIMUM 6.5 M^3/H, MAXIMUM HEAD 30 MCA AND MINIMUM 18 MCA, THREE-PHASE MOTOR 220/380 V, 60 HZ, 2 POLES (3500 RPM), SW STUMBLING GRADE IP-55, COMES WITH WARRANTY CERTIFICATE AND MANUAL.	1	POTABLE	OPERATIONAL	-
		MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED IMPELLER, CENTRIFUGAL TYPE – SINGLE-STAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/4", SUCTION DIAMETER 1.1/2", POWER 3 HP, MAXIMUM FLOW RATE 21.7 M^3/H AND MINIMUM 6.5 M^3/H, MAXIMUM HEAD 30 MCA AND MINIMUM 18 MCA, THREE-PHASE MOTOR 220/380 V, 60 HZ, 2 POLES (3500 RPM), SW STUMBLING GRADE IP-55, COMES WITH WARRANTY CERTIFICATE AND MANUAL.	1	POTABLE	OPERATIONAL	-
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		BOMBA / MOTOR	1	REUSE	NON-OPERATIONAL	MISSING: IN LAB FOR REPAIR
		KSB MEGABLOC PUMP, IMPELLER DIAMETER 169 MM	1	FIRE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.
		KSB MEGABLOC PUMP, IMPELLER DIAMETER 169 MM	1	FIRE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M^3/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	-
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M^3/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	-

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
12-SAFIRA	JARDIM HELENA-VILA MARA STATION	MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED IMPELLER, CENTRIFUGAL TYPE – SINGLE-STAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/4", SUCTION DIAMETER 1.1/2", POWER 3 HP, MAXIMUM FLOW RATE 21.7 M³/H AND MINIMUM 6.5 M³/H, MAXIMUM HEAD 30 MCA AND MINIMUM 18 MCA, THREE-PHASE MOTOR 220/380 V, 60 HZ, 2 POLES (3500 RPM), SW STUMBLING GRADE IP-55, COMES WITH WARRANTY CERTIFICATE AND MANUAL.	1	POTABLE	OPERATIONAL	-
		MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED IMPELLER, CENTRIFUGAL TYPE – SINGLE-STAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/4", SUCTION DIAMETER 1.1/2", POWER 3 HP, MAXIMUM FLOW RATE 21.7 M³/H AND MINIMUM 6.5 M³/H, MAXIMUM HEAD 30 MCA AND MINIMUM 18 MCA, THREE-PHASE MOTOR 220/380 V, 60 HZ, 2 POLES (3500 RPM), SW STUMBLING GRADE IP-55, COMES WITH WARRANTY CERTIFICATE AND MANUAL.	1	POTABLE	NON-OPERATIONAL	MISSING: IN LAB FOR REPAIR
		MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED IMPELLER, CENTRIFUGAL TYPE – SINGLE-STAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/4", SUCTION DIAMETER 1.1/2", POWER 3 HP, MAXIMUM FLOW RATE 21.7 M³/H AND MINIMUM 6.5 M³/H, MAXIMUM HEAD 30 MCA AND MINIMUM 18 MCA, THREE-PHASE MOTOR 220/380 V, 60 HZ, 2 POLES (3500 RPM), SW STUMBLING GRADE IP-55, COMES WITH WARRANTY CERTIFICATE AND MANUAL.	1	REUSE	OPERATIONAL	-

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
		MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED IMPELLER, CENTRIFUGAL TYPE – SINGLE-STAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/4", SUCTION DIAMETER 1.1/2", POWER 3 HP, MAXIMUM FLOW RATE 21.7 M^3/H AND MINIMUM 6.5 M^3/H, MAXIMUM HEAD 30 MCA AND MINIMUM 18 MCA, THREE-PHASE MOTOR 220/380 V, 60 HZ, 2 POLES (3500 RPM), SW STUMBLING GRADE IP-55, COMES WITH WARRANTY CERTIFICATE AND MANUAL.	1	REUSE	NON-OPERATIONAL	MISSING: IN LAB FOR REPAIR
		KSB MEGABLOC PUMP, IMPELLER DIAMETER 169 MM	1	FIRE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.
		KSB MEGABLOC PUMP, IMPELLER DIAMETER 169 MM	1	FIRE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M^3/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	
		BOMBA / MOTOR	1	DRAINAGE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
12-SAFIRA	SÃO MIGUEL PAULISTA STATION	BOMBA HIDRAULICA SCHNEIDER MOD. BC-92SHB POT.3CV 220/380V TRIF. N/S:6405112961011	1	POTABLE	OPERATIONAL	-
		BOMBA HIDRAULICA SCHNEIDER MOD. BC-92SHB POT.3CV 220/380V TRIF.	1	POTABLE	NON-OPERATIONAL	MISSING: IN LAB FOR REPAIR
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION; VERIFICATION OF OPERATION WITH THE ELECTRICITY IS REQUIRED
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION; VERIFICATION OF OPERATION WITH THE ELECTRICITY IS REQUIRED
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION; VERIFICATION OF OPERATION WITH THE ELECTRICITY IS REQUIRED
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION; VERIFICATION OF OPERATION WITH THE ELECTRICITY IS REQUIRED
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION; VERIFICATION OF OPERATION WITH THE ELECTRICITY IS REQUIRED

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
		SCHNEIDER ME-AL 23100 10 T 60 4V MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED ROTOR, CENTRIFUGAL TYPE – MULTISTAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW RATE 24.5 M³/H AND MINIMUM 5.8 M³/H, MAXIMUM HEAD 103 MCA AND MINIMUM 49 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	FIRE	OPERATIONAL	-
		SCHNEIDER ME-AL 23100 10 T 60 4V MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED ROTOR, CENTRIFUGAL TYPE – MULTISTAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW RATE 24.5 M³/H AND MINIMUM 5.8 M³/H, MAXIMUM HEAD 103 MCA AND MINIMUM 49 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	FIRE	OPERATIONAL	-
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M³/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	-
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M³/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	-
12-SAFIRA	COMENDADOR ERMELINO STATION	BOMBA KSB HYDROBLOC C1500N T Q: 2 A 10M³/H – MCA: 33 A 25M, THREE-PHASE MOTOR 220/380 V, 60 HZ, 3460 RPM	1	POTABLE	OPERATIONAL	-
		BOMBA KSB HYDROBLOC C1500N T Q: 2 A 10M³/H – MCA: 33 A 25M, THREE-PHASE MOTOR 220/380 V, 60 HZ, 3460 RPM	1	POTABLE	OPERATIONAL	PUMP WITH HIGH NOISE
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	ABSENT.
		THSI-18(R) FIRE PUMP, THREE-PHASE 220/380/440/760 V, DISCHARGE DIAMETER 2.1/2", SUCTION DIAMETER 2.1/2", POWER 5 HP, MAXIMUM	1	FIRE	OPERATIONAL	-

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
		FLOW 35.75 M³/H AND MINIMUM 15.0 M³/H, MAXIMUM HEAD 36 MCA AND MINIMUM 22 MCA.				
		THSI-18(R) FIRE PUMP, THREE-PHASE 220/380/440/760 V, DISCHARGE DIAMETER 2.1/2", SUCTION DIAMETER 2.1/2", POWER 5 HP, MAXIMUM FLOW 35.75 M³/H AND MINIMUM 15.0 M³/H, MAXIMUM HEAD 36 MCA AND MINIMUM 22 MCA.	1	FIRE	OPERATIONAL	-
		BOMBA / MOTOR	1	DRAINAGE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
12-SAFIRA	USP LESTE STATION	BOMBA KSB HYDROBLOC C100N T Q: 0,5 A 11M³/H – MCA: 31 A 23M, THREE-PHASE MOTOR 220/380 V, 60 HZ, 3460 RPM	1	POTABLE	OPERATIONAL	-
		BOMBA KSB HYDROBLOC C100N T Q: 0,5 A 11M³/H – MCA: 31 A 23M, THREE-PHASE MOTOR 220/380 V, 60 HZ, 3460 RPM	1	POTABLE	OPERATIONAL	-
		BOMBA / MOTOR	1	REUSE	NON-OPERATIONAL	ABSENT.
		BOMBA / MOTOR	1	REUSE	NON-OPERATIONAL	ABSENT.
		KSB MEGABLOC PUMP, IMPELLER DIAMETER 169 MM	1	FIRE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.
		KSB MEGABLOC PUMP, IMPELLER DIAMETER 169 MM	1	FIRE	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE.

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
12-Safira13-Jade	ENGENHEIRO GOULART STATION	SCINEIDER BC-22 R 1ª 3 T 60 4V PUMP, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW 10.2 M³/H AND MINIMUM 4.8 M³/H, MAXIMUM HEAD 37 MCA AND MINIMUM 20 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	POTABLE	OPERATIONAL	-
		SCINEIDER BC-22 R 1ª 3 T 60 4V PUMP, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW 10.2 M³/H AND MINIMUM 4.8 M³/H, MAXIMUM HEAD 37 MCA AND MINIMUM 20 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	POTABLE	OPERATIONAL	-
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		SCHNEIDER ME-AL 23100 10 T 60 4V MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED ROTOR, CENTRIFUGAL TYPE – MULTISTAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW RATE 24.5 M³/H AND MINIMUM 5.8 M³/H, MAXIMUM HEAD 103 MCA AND MINIMUM 49 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	FIRE	OPERATIONAL	-
		SCHNEIDER ME-AL 23100 10 T 60 4V MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED ROTOR, CENTRIFUGAL TYPE – MULTISTAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW RATE 24.5 M³/H AND MINIMUM 5.8 M³/H, MAXIMUM HEAD 103 MCA AND MINIMUM 49 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	FIRE	OPERATIONAL	-

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
		SCHINEIDER ME-AL PUMP 1740 N 4 T 60 4V, DISCHARGE DIAMETER 1", SUCTION DIAMETER 1", POWER 10 HP, MAXIMUM FLOW 5.5 M^3/H AND MINIMUM 0.8 M^3/H, MAXIMUM HEAD 136 MCA AND MINIMUM 70 MCA, 220/380/440 V, 60 HZ, (3450 RPM).	1	FIRE (JOCKEY)	OPERATIONAL	-
		BOMBA / MOTOR	1	SEWAGE	NON-OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION. PUMP BURNED, IT IS NECESSARY TO EXHAUST THE RESERVOIR TO REMOVE AND SEND THE PUMP TO THE LABORATORY.
		BOMBA / MOTOR	1	SEWAGE	NON-OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION. PUMP BURNED, IT IS NECESSARY TO EXHAUST THE RESERVOIR TO REMOVE AND SEND THE PUMP TO THE LABORATORY.

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
13-JADE	GUARULHOS CECAP STATION	SCINEIDER BC-22 R 1ª 3 T 60 4V PUMP, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW 10.2 M³/H AND MINIMUM 4.8 M³/H, MAXIMUM HEAD 37 MCA AND MINIMUM 20 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	POTABLE	OPERATIONAL	-
		SCINEIDER BC-22 R 1ª 3 T 60 4V PUMP, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW 10.2 M³/H AND MINIMUM 4.8 M³/H, MAXIMUM HEAD 37 MCA AND MINIMUM 20 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	POTABLE	OPERATIONAL	-
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		SCHNEIDER ME-AL 23100 10 T 60 4V MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED ROTOR, CENTRIFUGAL TYPE – MULTISTAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW RATE 24.5 M³/H AND MINIMUM 5.8 M³/H, MAXIMUM HEAD 103 MCA AND MINIMUM 49 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	FIRE	OPERATIONAL	-
		SCHNEIDER ME-AL 23100 10 T 60 4V MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED ROTOR, CENTRIFUGAL TYPE – MULTISTAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW RATE 24.5 M³/H AND MINIMUM 5.8 M³/H, MAXIMUM HEAD 103 MCA AND MINIMUM 49 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	FIRE	OPERATIONAL	-
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M³/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	-

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M³/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	-
		BOMBA / MOTOR	1	SEWAGE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		BOMBA / MOTOR	1	SEWAGE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
13-JADE	AEROPORTO-GUARULHOS STATION	SCINEIDER BC-22 R 1ª 3 T 60 4V PUMP, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW 10.2 M³/H AND MINIMUM 4.8 M³/H, MAXIMUM HEAD 37 MCA AND MINIMUM 20 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	POTABLE	OPERATIONAL	-
		SCINEIDER BC-22 R 1ª 3 T 60 4V PUMP, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW 10.2 M³/H AND MINIMUM 4.8 M³/H, MAXIMUM HEAD 37 MCA AND MINIMUM 20 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	POTABLE	OPERATIONAL	-
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		BOMBA / MOTOR	1	REUSE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		SCHNEIDER ME-AL 23100 10 T 60 4V MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED ROTOR, CENTRIFUGAL TYPE – MULTISTAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW RATE 24.5 M³/H AND MINIMUM 5.8 M³/H, MAXIMUM HEAD 103 MCA AND MINIMUM 49 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	FIRE	OPERATIONAL	-
		SCHNEIDER ME-AL 23100 10 T 60 4V MOTOR PUMP, CAST IRON HOUSING, STAINLESS STEEL MECHANICAL SEAL, CLOSED ROTOR, CENTRIFUGAL TYPE – MULTISTAGE, BSP THREADED COUPLING, DISCHARGE DIAMETER 1.1/2", SUCTION DIAMETER 1.1/2", POWER 10 HP, MAXIMUM FLOW RATE 24.5 M³/H AND MINIMUM 5.8 M³/H, MAXIMUM HEAD 103 MCA AND MINIMUM 49 MCA, 220/380/440 V, 60 HZ, (3500 RPM).	1	FIRE	OPERATIONAL	-
		BOMBA KSB HYMA 303 GG, 220/380 V, 60 HZ, (3500 RPM).	1	FIRE (JOCKEY)	OPERATIONAL	PUMP WITHOUT TECHNICAL INFORMATION PLATE (FLOW AND MANOMETRIC HEIGHT).

LINE	LOCAL	TECHNICAL SPECIFICATION	QTY	TYPE	CLASSIFICATION	OBSERVATIONS
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M³/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	-
		SULZER ROBUST PUMP 700T, 200V, MAXIMUM FLOW RATE 47M³/H, MAXIMUM HEAD 9 MCA, 60 HZ, 3500 RPM.	1	DRAINAGE	OPERATIONAL	-
		BOMBA / MOTOR	1	SEWAGE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.
		BOMBA / MOTOR	1	SEWAGE	OPERATIONAL	SUBMERSIBLE PUMP; IT IS NECESSARY TO REMOVE THE PUMP OR THAT THE RESERVOIR IS EMPTY TO ACCESS THE CONFINED SPACE AND VERIFY THE SPECIFICATION.

Fonte: CPTM, 2023.

Table 96 – Air conditioning equipment in stations

LINE	LOCAL			TYPE		BRAND	ABILITY
11-CORAL	PALMEIRAS-BARRA FUNDA STATION	LOST AND FOUND		SPLIT		TCL	24.000 BTU/H
		LOST AND FOUND		SPLIT		TCL	24.000 BTU/H
		BASE AIR NETWORK		SPLIT		ELECTROLUX	18.000 BTU/H
		BASE AIR NETWORK		SPLIT		ELECTROLUX	18.000 BTU/H
		BOX OFFICE		SPLIT		TCL	24.000 BTU/H
		BOX OFFICE – ANTEROOM		SPLIT		TCL	24.000 BTU/H
		STATION LEADER		SPLIT		TCL	24.000 BTU/H
		SCHOOL ACCREDITATION STATION	MEZZANINE	SPLIT		TCL	24.000 BTU/H
		ROOM 21 – SECRETARY		SPLIT		TCL	24.000 BTU/H
		ROOM 31		SPLIT		TCL	24.000 BTU/H
		OR – 0800	MEZZANINE	SPLIT		AGRATTO	30.000 BTU/H
		OR – 0800	MEZZANINE	SPLIT		AGRATTO	30.000 BTU/H
		OR – 0800	MEZZANINE	SPLIT		TRANE	54.000 BTU/H
		OR – ADMINISTRATIVE	MEZZANINE	SPLIT		TCL	24.000 BTU/H
		OR – CHEFIA ROOM	MEZZANINE	SPLIT		TCL	24.000 BTU/H
		SAU – SERVERS	MEZZANINE	SPLIT		TCL	24.000 BTU/H
		SSO		SPLIT		TCL	24.000 BTU/H
		STATION SUPERVISOR		SPLIT		TCL	24.000 BTU/H
		DOC2 – PLAT. 5 By 6	MEZZANINE	WINDOW		SPRINGER	24.000 BTU/H
		DOSV – PLATFORM 5 AND 6	MEZZANINE	SPLIT		MIDEA	12.000 BTU/H
11-CORAL	LUZ STATION	PINACOTECA TICKET OFFICE (TOURIST TRAIN)	SUBSOIL	SPLIT		TCL	24.000 BTU/H
		SHELTER – CONTROL		SPLIT		SAMSUNG	18.000 BTU/H
		SHELTER – MEETING ROOM		SPLIT		LG	12.000 BTU/H
		SHELTER – SUPERVISION		SPLIT		CARRIER	9.000 BTU/H
		SHELTER – SECRETARIAT ROOM (GOR)		SPLIT		SPRINGER	22.000 BTU/H
		SHELTER – TECHNICAL SUPERVISION		SPLIT		CARRIER	9.000 BTU/H
		SHELTER – MANEUVER ROOM		ACJ		SPRINGER	18.000 BTU/H
		SHELTER – TECHNICIANS		SPLIT		CARRIER	9.000 BTU/H
		ABRIGO LUZ – PLANNING AND CONTROL ROOM – GOR/A		WINDOW		SPRINGER	18.000 BTU/H
		FORMER CCO – LEADERSHIP	1ST FLOOR	SPLIT		TCL	24.000 BTU/H
		FORMER CCO – ENGINEERS DOC1	1ST FLOOR	SPLIT		TCL	24.000 BTU/H
		FORMER CCO – ROOM 8	1ST FLOOR	SPLIT		AGRATTO	24.000 BTU/H
		FORMER CCO – DOC1 SECRETARIAT	1ST FLOOR	SPLIT		TCL	24.000 BTU/H
		SIMULATOR	1ST FLOOR	SPLIT		AGRATTO	30.000 BTU/H
		SIMULATOR	1ST FLOOR	SPLIT		PHILCO	30.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		SIMULATOR	1ST FLOOR	SPLIT		PHILCO	30.000 BTU/H
		SIGNAGE – MEETING ROOM	GROUND FLOOR	SPLIT		TCL	24.000 BTU/H
		TELEPHONE EXCHANGE		SPLIT		TCL	24.000 BTU/H
		DOFA – DISTRIBUTION (PLATFORM 4)	GROUND FLOOR	SPLIT		TCL	24.000 BTU/H
		INNOVATION	GROUND FLOOR	SPLIT		AGRATTO	30.000 BTU/H
		INNOVATION	GROUND FLOOR	SPLIT		AGRATTO	30.000 BTU/H
		PLATFORM 4 – EBILOCK 10	GROUND FLOOR	SPLIT		TCL	24.000 BTU/H
		PLATFORM 4 – EBILOCK 11 12	GROUND FLOOR	SPLIT		AGRATTO	30.000 BTU/H
		ENGINEERS' ROOM – TELECOMMUNICATIONS	1ST FLOOR	SPLIT		TCL	24.000 BTU/H
		TRAIN DRIVERS ROOM – COEXISTENCE	GROUND FLOOR	SPLIT		TRANE	54.000 BTU/H
		TRAIN DRIVERS ROOM – TRAINING	GROUND FLOOR	SPLIT		TRANE	54.000 BTU/H
		NEC ROOM	GROUND FLOOR	SPLIT		TCL	24.000 BTU/H
		SIGNAGE – ADMINISTRATIVE	GROUND FLOOR	SPLIT		TCL	24.000 BTU/H
		SSO	SUBSOIL	SPLIT		TCL	24.000 BTU/H
		TELECOMMUNICATIONS	GROUND FLOOR	SPLIT		AGRATTO	30.000 BTU/H
		ABRIGO LUZ – GOR MANAGEMENT ROOM	1ST FLOOR	SPLIT		LG	18.500 BTU/H
		FORMER CCO – DOC1	1ST FLOOR	WINDOW		SPRINGER	21.000 BTU/H
		FORMER CCO – DOC1 – ROOM 8	1ST FLOOR	SPLIT			18.000 BTU/H
		FORMER CCO – DOC1 SUPERVISORS	1ST FLOOR	SPLIT		ELGIN	18.000 BTU/H
		FORMER CCO – ENGINEERS DOC1 (ROOMS 7, 8 AND 9)	1ST FLOOR	SPLIT		SAMSUNG	12.000 BTU/H
		FORMER CCO – ROOM 8	1ST FLOOR	WINDOW		SPRINGER	30.000 BTU/H
		FORMER CCO – SERCRETÁRIA DOC1	1ST FLOOR	WINDOW		SPRINGER	30.000 BTU/H
		AUDITORIUM – FR. MORO		SPLIT		ELGIN	36.000 BTU/H
		AUDITORIUM – FR. MORO		SPLIT		ELGIN	36.000 BTU/H
		AUDITORIUM – FR. MORO		SPLIT		ELGIN	36.000 BTU/H
		AUDITORIUM – FR. MORO	GROUND FLOOR	SPLIT		TRANE	54.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		TELEPHONE EXCHANGE	GROUND FLOOR	WINDOW		SPRINGER	21.000 BTU/H
		TELEPHONE EXCHANGE – ENGINEERS ACCESS ROOM	1ST FLOOR	WINDOW		SPRINGER	10.500 BTU/H
		TELEPHONE EXCHANGE – ELECTRICIAN/TECHNICIAN ROOM	1ST FLOOR	WINDOW		SPRINGER	21.000 BTU/H
		DE – GEF/GEO SIDE	COEXISTENCE	SPLIT		ELGIN	30.000 BTU/H
		DE – GEF/GEO SIDE	MEETING ROOM 1	SPLIT		ELGIN	24.000 BTU/H
		DE – GEF/GEO SIDE	MEETING ROOM 2	SPLIT		ELGIN	12.000 BTU/H
		DE – GEF/GEO SIDE	SHED	SPLIT		ELGIN	36.000 BTU/H
		DE – GEF/GEO SIDE	SHED	SPLIT		ELGIN	36.000 BTU/H
		DE – GEF/GEO SIDE	SHED	SPLIT		ELGIN	36.000 BTU/H
		DE – GEF/GEO SIDE	SHED	SPLIT		ELGIN	36.000 BTU/H
		DE – LADO GED/GET	SHED	SPLIT		ELGIN	30.000 BTU/H
		DE – LADO GED/GET	SHED	SPLIT		ELGIN	30.000 BTU/H
		DE – LADO GED/GET	SHED	SPLIT		ELGIN	30.000 BTU/H
		DE – LADO GED/GET	SHED	SPLIT		ELGIN	30.000 BTU/H
		DE – LADO GED/GET	MEETING ROOM	SPLIT		ELGIN	30.000 BTU/H
		DE – LADO GED/GET	MANAGEMENT ROOM	SPLIT		ELGIN	36.000 BTU/H
		DE – LADO GED/GET	ROOM 1	SPLIT		ELGIN	30.000 BTU/H
		FABLAB		SPLIT		TRANE	54.000 BTU/H
		MEDICAL CENTER – ACCESS TO THE BUILDING	GROUND FLOOR	SPLIT		MIDEA	VRF – CASSETE 1 VIA – 9400 BTU/H
		MEDICAL CENTER – OFFICE 1	GROUND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		MEDICAL CENTER – OFFICE 2	GROUND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		MEDICAL CENTER – OFFICE 3	GROUND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		MEDICAL CENTER – OFFICE 4	GROUND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		MEDICAL CENTER – DFHS	1ST FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		MEDICAL CENTER – DFHS	1ST FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		MEDICAL CENTER – RECEPTION	GROUND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		MEDICAL CENTER – PRINTING ROOM	GROUND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		MEDICAL CENTER – OCCUPATIONAL SAFETY	2ND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		MEDICAL CENTER – OCCUPATIONAL SAFETY	2ND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		OCCUPATIONAL SAFETY MEDICAL CENTRE (MEETING)	2ND FLOOR	SPLIT		MIDEA	VRF – 4-WAY CASSETTE – 9400 BTU/H
		ROOM 1 AND 2	GROUND FLOOR	WINDOW		SPRINGER	12,000 BTU/H
		ROOM 2	GROUND FLOOR	WINDOW		SPRINGER	12,000 BTU/H
		ROOM 2	GROUND FLOOR	WINDOW		SPRINGER	21,000 BTU/H
		TECHNICAL TELEPHONY ROOM	1ST FLOOR	WINDOW		ELGIN	21,000 BTU/H
		SIGNAGE	GROUND FLOOR	WINDOW		GREE	10,500 BTU/H
		SIGNAGE – ADMINISTRATIVE	GROUND FLOOR	WINDOW		SPRINGER	12,000 BTU/H
11-CORAL	CORINTHIANS-ITAQUERA	BOX OFFICE	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
		STATION MASTER	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		SSO	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	DON BOSCO	BOX OFFICE	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		MEETING ROOM	GROUND FLOOR	SPLIT	ROTARY	BRIZE	9.000 BTU/H
		SSO	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	JOSÉ BONIFÁCIO	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		SSO	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	GUAIANASES	BOX OFFICE	SUBSOIL	SPLIT	REVERSE	TCL	24.000 BTU/H
		STATION LEADER	SUBSOIL	SPLIT	REVERSE	TCL	24.000 BTU/H
		PCS – CMT / SSO	SUBSOIL	SPLIT	REVERSE	TCL	24.000 BTU/H
		LIVING ROOM – PANTRY	SUBSOIL	SPLIT	REVERSE	TCL	24.000 BTU/H
		SUPPORT ROOM – COEXISTENCE	SUBSOIL	SPLIT	REVERSE	TCL	24.000 BTU/H
		TECHNICAL ROOM		SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		TECHNICAL ROOM		SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		TECHNICAL ROOM	SUBSOIL	SPLIT		RHEEM	36.000 BTU/H
		SECURITY – OUTPOST	SUBSOIL	SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		SSO		SPLIT		TCL	24.000 BTU/H
		SUPERVISION	GROUND FLOOR	SPLIT		TCL	24.000 BTU/H
		REPEATER	MEZZANINE	SPLIT		SPRINGER	9.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
11-CORAL	ANTÔNIO GIANETTI NETO	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	FERRAZ DE VASCONCELOS	USER SERVICE	MEZZANINE	SPLIT		SPRINGER	9.000 BTU/H
		BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		SGE ROOM	MEZZANINE	SPLIT	ROTARY	BRIZE	9.000 BTU/H
		SSO	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	POÁ	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		MEETING ROOM	MEZZANINE	SPLIT	ROTARY	BRIZE	9.000 BTU/H
		SSO		SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	SUZANO	BOX OFFICE	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – LIVING ROOM		SPLIT		ELGIN	60.000 BTU/H
		TRAIN DRIVERS – LIVING ROOM		SPLIT		ELGIN	80.000 BTU/H
		LACE ROOM	MEZZANINE	SPLIT	ROTARY	SAMSUNG	9.000 BTU/H
		TECHNICAL ROOM		SPLIT		ELGIN	18.000 BTU/H
		TECHNICAL ROOM		SPLIT		ELGIN	18.000 BTU/H
		TECHNICAL ROOM		SPLIT		ELGIN	18.000 BTU/H
		TECHNICAL ROOM		SPLIT		ELGIN	18.000 BTU/H
		SIMULATOR	MEZZANINE	SPLIT	ROTARY	ELGIN	9.000 BTU/H
		SIMULATOR	MEZZANINE	SPLIT	ROTARY	ELGIN	9.000 BTU/H
		SIMULATOR	MEZZANINE	SPLIT	ROTARY	ELGIN	18.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		SSO	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	JUNDIAPEBA	BOX OFFICE	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	BRAZ CUBAS	BOX OFFICE	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		OPERATIONAL ROOM – MANAGEMENT	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	MOGI DAS CRUZES	BOX OFFICE	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL	ESTUDANTES	BOX OFFICE	GROUND FLOOR	SPLIT	ROTARY	BRIZE	9.000 BTU/H
		BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		TECHNICAL ROOM	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL 12-SAFIRA	BRÁS	FORMER CCO – GOM SUPPORT	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 01	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 01	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 02	1ST FLOOR	SPLIT	REVERSE	TCL	24,000 BTU/H
		FORMER CCO – ROOM 03	1ST FLOOR	SPLIT	REVERSE	TCL	24,000 BTU/H
		FORMER CCO – ROOM 04	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 05 DOFS	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 06 GOF	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		FORMER CCO – ROOM 07 DOFS	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 08	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 09 – MEETING	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 11	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 12	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 12/13	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 13	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 13	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 14		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 15		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 16 DOSV		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 17/23		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 17/23		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 18	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 18 – LEADERSHIP	1ST FLOOR	SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		FORMER CCO – ROOM 19	1ST FLOOR	SPLIT	REVERSE	TCL	24,000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		FORMER CCO – ROOM 2	1ST FLOOR	WINDOW		TOTALINE	18,000 BTU/H
		FORMER CCO – ROOM 20 – MANAGER	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 20 – SECRETARY	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 201	2ND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 202		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 203 – SUPPORT	2ND FLOOR	SPLIT		TCL	24.000 BTU/H
		FORMER CCO – ROOM 203 – LEADERSHIP	2ND FLOOR	SPLIT		TCL	24.000 BTU/H
		FORMER CCO – ROOM 22		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 27		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 28		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 30 – MANAGER		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 30 – SECRETARY		SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 31	DOGES	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 31	DOGES	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 31	DOGES	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 31	DOGES	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 4	1ST FLOOR	WINDOW		SPRINGER	12.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		BOX OFFICE – CUP	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		MAIN BOX OFFICE	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		CCO – ROOM 114		SPLIT	REVERSE	TRANE	54.000 BTU/H
		CCO – ROOM 114		SPLIT	REVERSE	TRANE	54.000 BTU/H
		CCO – ROOM 114		SPLIT	REVERSE	TRANE	54.000 BTU/H
		CCO – ROOM 114		SPLIT	REVERSE	TRANE	54.000 BTU/H
		CCO – DRUM ROOM		SPLIT		ELGIN	60.000 BTU/H
		TELEPHONE EXCHANGE	GROUND FLOOR	PORTABLE		SPRINGER	12.000 BTU/H
		TELEPHONE EXCHANGE – COMMUN. VISUAL – PLOTTER	GROUND FLOOR	PORTABLE		SPRINGER	12.000 BTU/H
		TELEPHONE EXCHANGE – VISUAL COMMUNICATION	GROUND FLOOR	PORTABLE		SPRINGER	12.000 BTU/H
		TELEPHONE EXCHANGE – AGREEMENTS		PORTABLE		SPRINGER	12.000 BTU/H
		TELEPHONE EXCHANGE – PROCEDURES	GROUND FLOOR	PORTABLE		SPRINGER	12.000 BTU/H
		TELEPHONE EXCHANGE – PROCEDURES ROOM 19	GROUND FLOOR	PORTABLE		SPRINGER	12.000 BTU/H
		TELEPHONE EXCHANGE – SECURITY	GROUND FLOOR	WINDOW		SPRINGER	21.000 BTU/H
		TELEPHONE EXCHANGE – SECURITY	GROUND FLOOR	SPLIT		ELGIN	30.000 BTU/H
		AIR CONDITIONING – SUPPORT	GROUND FLOOR	SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		AIR CONDITIONING – RONALDO ROOM	MEZZANINE	SPLIT		ELGIN	12.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		AIR CONDITIONING – SUPERVISION	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		VISUAL COMMUNICATION – PLOTTER ROOM		SPLIT		TCL	24.000 BTU/H
		VISUAL COMMUNICATION – PLOTTER ROOM		SPLIT		TCL	24.000 BTU/H
		DOFA – SUPPORT (EXPEDITO)	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		DOFA – ENGINEERS		SPLIT	REVERSE	TCL	24.000 BTU/H
		DOGC – ROAD 12		WINDOW		SPRINGER	30.000 BTU/H
		TECHNICAL TEAM – ROOM 21		WINDOW		SPRINGER	21.000 BTU/H
		TRAIN DRIVERS – GOC ADVISOR	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – ADMINISTRATIVE ROOM	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – TRACTION ROOM	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – DOC3 ROOM	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – SIMULATOR	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – SIMULATOR	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – SIMULATOR	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – SUPERVISION		SPLIT	REVERSE	TCL	24.000 BTU/H
		TRAIN DRIVERS – SUPERVISION	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
		ADE - ROAD 12		SPLIT		TCL	24.000 BTU/H
		NEC ROOM		SPLIT		AGRATTO	30.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		NEC ROOM		SPLIT		AGRATTO	30.000 BTU/H
		NEC ROOM		SPLIT		AGRATTO	30.000 BTU/H
		SECURITY (FORMER BANK POST)	GROUND FLOOR	WINDOW		SPRINGER	12.000 BTU/H
		SSO	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		SUPERVISÃO – ER/EL		SPLIT	REVERSE	TCL	24.000 BTU/H
		SUPERVISION – SEL 12/11/13		SPLIT		TCL	24.000 BTU/H
		FORMER CCO – ROOM 15	1ST FLOOR	WINDOW		CONSUL	12.000 BTU/H
		FORMER CCO – ROOM 16	1ST FLOOR	WINDOW		ELGIN	21,000 BTU/H
		FORMER CCO – ROOM 18 SECURITY MANAGEMENT	1ST FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		FORMER CCO – ROOM 14	1ST FLOOR	WINDOW		SPRINGER	21,000 BTU/H
		FORMER CCO – ROOM 22	1ST FLOOR	WINDOW		ELGIN	18,000 BTU/H
		FORMER CCO – ROOM 27	1ST FLOOR	WINDOW		ELGIN	18,000 BTU/H
		FORMER CCO – ROOM 28	1ST FLOOR	WINDOW		SPRINGER	12,000 BTU/H
		FORMER CCO – ROOM 31	1ST FLOOR	PORTABLE		SPRINGER	12,000 BTU/H
		FORMER CCO – ROOM 31	1ST FLOOR	PORTABLE		SPRINGER	12,000 BTU/H
		FORMER CCO – ROOM 31	1ST FLOOR	WINDOW		SPRINGER	21,000 BTU/H
		FORMER CCO – ROOM 31	1ST FLOOR	WINDOW		SPRINGER	30,000 BTU/H
		FORMER CCO – ROOM 33	1ST FLOOR	SPLIT		SPRINGER	9,000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		FORMER CCO – ROOM 33	1ST FLOOR	SPLIT		SPRINGER	9,000 BTU/H
		TELEPHONE EXCHANGE – VISUAL COMMUNICATION	GROUND FLOOR	WINDOW		CARRIER	12,000 BTU/H
		TELEPHONE EXCHANGE – TELEPHONE CORRIDOR	1ST FLOOR	WINDOW		ADMIRAL	12,000 BTU/H
		TELEPHONE EXCHANGE – HRM	GROUND FLOOR	PORTABLE		SPRINGER	12,000 BTU/H
		TELEPHONE EXCHANGE – MEDICAL CENTER	GROUND FLOOR	PORTABLE		SPRINGER	12,000 BTU/H
		TELEPHONE EXCHANGE – SECURITY	1ST FLOOR	WINDOW		ELGIN	24,000 BTU/H
		DOFA – ER/EL	GROUND FLOOR	WINDOW		SPRINGER	12,000 BTU/H
		DOFA – TECHNICIANS AND SUPPORT	GROUND FLOOR	SPLIT		CONSUL	9,000 BTU/H
		DOFS – ENGINEERS	GROUND FLOOR	WINDOW		SPRINGER	21.000 BTU/H
		TRAIN DRIVERS – SUPERVISION	MEZZANINE	SPLIT	ROTARY	BRIZE	9.000 BTU/H
		STATION FOREMEN ROOM	1ST FLOOR	WINDOW		CONSUL	18.000 BTU/H
11-CORAL12-SAFIRA	TATUAPÉ	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		LEADERS ROOM – M8	GROUND FLOOR	SPLIT	ROTARY	BRIZE	9.000 BTU/H
		TECHNICAL ROOM – SIGNAGE		SPLIT		AGRATTO	30.000 BTU/H
		SSO	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
12-Safira13-Jade	ENGENHEIRO GOULART	BOX OFFICE		SPLIT		TCL	24.000 BTU/H
		TECHNICAL ROOM – SPC – ROOM 72		SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		TECHNICAL ROOM – SPC – ROOM 72		SPLIT	REVERSE	AGRATTO	30.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		TECHNICAL ROOM – SPS – ROOM 71		SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		TECHNICAL ROOM – SPS – ROOM 71		SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		SSO		SPLIT		TCL	24.000 BTU/H
12-SAFIRA	USP-LESTE	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		SSO		SPLIT	REVERSE	TCL	24.000 BTU/H
12-SAFIRA	COMMANDER ERMELINO	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		SSO	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
12-SAFIRA	SÃO MIGUEL PAULISTA	BOX OFFICE		SPLIT		TCL	24.000 BTU/H
		MEETING ROOM	MEZZANINE	SPLIT	ROTARY	BRIZE	9.000 BTU/H
		SSO		SPLIT	REVERSE	TCL	24.000 BTU/H
12-SAFIRA	JARDIM HELENA	BOX OFFICE		SPLIT		TCL	24.000 BTU/H
		SSO		SPLIT	REVERSE	TCL	24.000 BTU/H
12-SAFIRA	ITAIM PAULISTA	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		STATION MASTER	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
		SAFETY		SPLIT	REVERSE	AGRATTO	30.000 BTU/H
		SSO	MEZZANINE	SPLIT	REVERSE	TCL	24.000 BTU/H
12-SAFIRA	JARDIM ROMANO	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		SSO		SPLIT	REVERSE	TCL	24.000 BTU/H
12-SAFIRA	ENGENHEIRO MANOEL FEIO	PROVISIONAL BOX OFFICE	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		SSO	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
12-SAFIRA	ITAQUAQUECETUBA	BOX OFFICE	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		SSO	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
12-SAFIRA	ARACARÉ	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		SSO	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
11-CORAL12-SAFIRA	CALMON VIANA	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H
		OVERHEAD NETWORK – TECHNICIANS ROOM	GROUND FLOOR	SPLIT	REVERSE	TCL	24.000 BTU/H
		TECHNICAL ROOM – TELEPHONY		SPLIT	REVERSE	TCL	24.000 BTU/H
		TECHNICAL ROOM (SIGNAGE BASE)	GROUND FLOOR	WINDOW		SPRINGER	30.000 BTU/H
		SSO		SPLIT	REVERSE	TCL	24.000 BTU/H
13-JADE	GUARULHOS – CECAP	TECHNICAL ROOM – 41		SPLIT		TRANE	54.000 BTU/H
		TECHNICAL ROOM – 41		SPLIT		TRANE	54.000 BTU/H
		TECHNICAL ROOM – 42		SPLIT		TRANE	54.000 BTU/H
		TECHNICAL ROOM – 42		SPLIT		TRANE	54.000 BTU/H
		SSO		SPLIT	REVERSE	TCL	24.000 BTU/H
13-JADE	AIRPORT – GUARULHOS	BOX OFFICE		SPLIT	REVERSE	TCL	24.000 BTU/H

LINE	LOCAL			TYPE		BRAND	ABILITY
		SALA TÉCNICA – SPC		SPLIT	REVERSE	TRANE	54.000 BTU/H
		TECHNICAL ROOM – SPS		SPLIT	REVERSE	TRANE	54.000 BTU/H
		SSO		SPLIT	REVERSE	TCL	24.000 BTU/H

Fonte: CPTM, 2023.

7 PERMANENT ROUTE

The permanent track of the railway network composed of the LINES has a gauge of 1,600 mm. The rails installed on these three lines are in greater proportion TR57 rails (67.14%), followed by TR68 (16.59%) and UIC 60 (16.27%). The latter correspond mainly to LINE 13, which went into operation in 2018. Approximately 62.50% of the installed sleepers are treated wood sleepers and 37.50% are monoblock concrete sleepers.

7.1 EXTENSIONS AND QUANTITIES OF PERMANENT TRACK

On Table 97 the extensions and quantities of permanent track on each of the LINES are presented. The information is also contained in the Road Plan contained in Appendix 1. The complementation and necessary repairs in the sealing of the LINES strip are defined in EXHIBIT II.A.

Table 97 – Extensions and quantities of permanent track

LINE	MAIN ROADS EXTENSION (M)	EXTENSION OF SECONDARY ROADS, EXCEPT YARDS (M)	TOTAL	SLEEPERS (UNIT)		RAILS (M)		DIRECT CLAMPING (M)	SLAB (M3)	AMV (UNIT)
				TYPE	QTY	TYPE	QUANTITY			
11-CORAL	100.635	905	101.540	WOOD	120.035	TR57	135.400	7.180	203.732	114
				CONCRETE	49.663	TR68	67.684			
				-	-	UIC60	-			
				TOTAL	**169.698**	***TOTAL***	**203.084**			
12-SAFIRA	77.914	-	77.914	WOOD	99.206	TR57	138.600	.	169.853	71
				CONCRETE	39.679	TR68	-			
				-	-	UIC60	17.400			
				TOTAL	**138.885**	***TOTAL***	**156.000**			
13-JADE	24.500	-	24.500	WOOD	-	TR57	-	15.730	18.748	39
				CONCRETE	3.976	TR68	-			
				-	-	UIC60	49.000			
				TOTAL	**3.976**	***TOTAL***	**49.000**			

Elaborated by: TYLIN-Egis Consortium.

7.2 ROAD SHARING WITH CARGO TRANSPORT SERVICE

In the operational range of the LINES there are railway segments in which the permanent track is shared between the passenger train service and the freight service as shown below. It should be noted that the sharing conditions are regulated through the MRS-CPTM AGREEMENT.

7.2.1 Luz-Brás Stretch

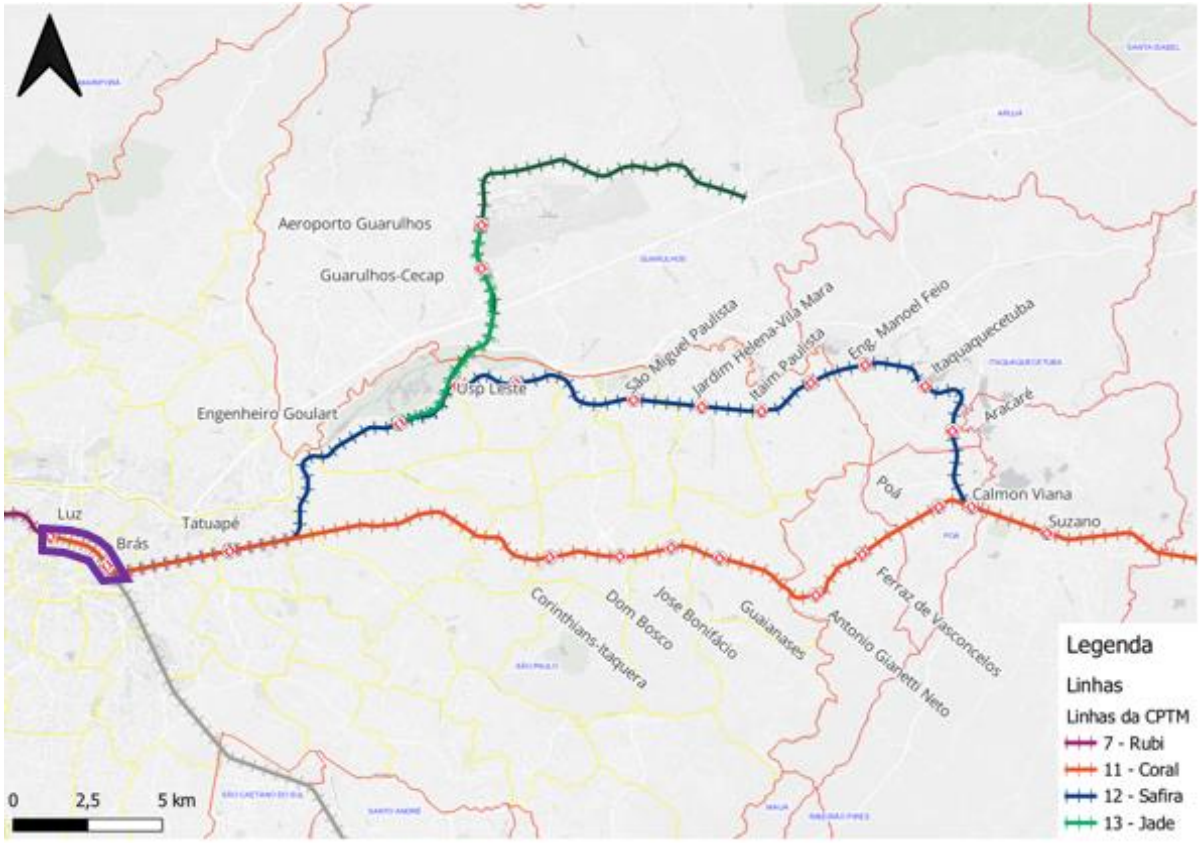
This stretch consists of 4 lanes and is 2.24 km long. It is characterized by the presence of treated wooden sleepers, TR 57 rails and AREMA type Turnouts (AMV).

In this section, Lines 7-Ruby, 10-Turquoise and LINE 11 currently operate, as well as the AIRPORT EXPRESS SERVICE. Tracks V1 and V2 are intended for the circulation of trains on Line 7-Ruby and Line

10 (Service 710), and tracks V3 and V4 for LINE 11 and LINE 13, in addition to the AIRPORT EXPRESS SERVICE.

MRS trains run on the tracks depending on the accesses to the yards and preferably through V3.

Figure 170 – Location of the Luz-Brás section



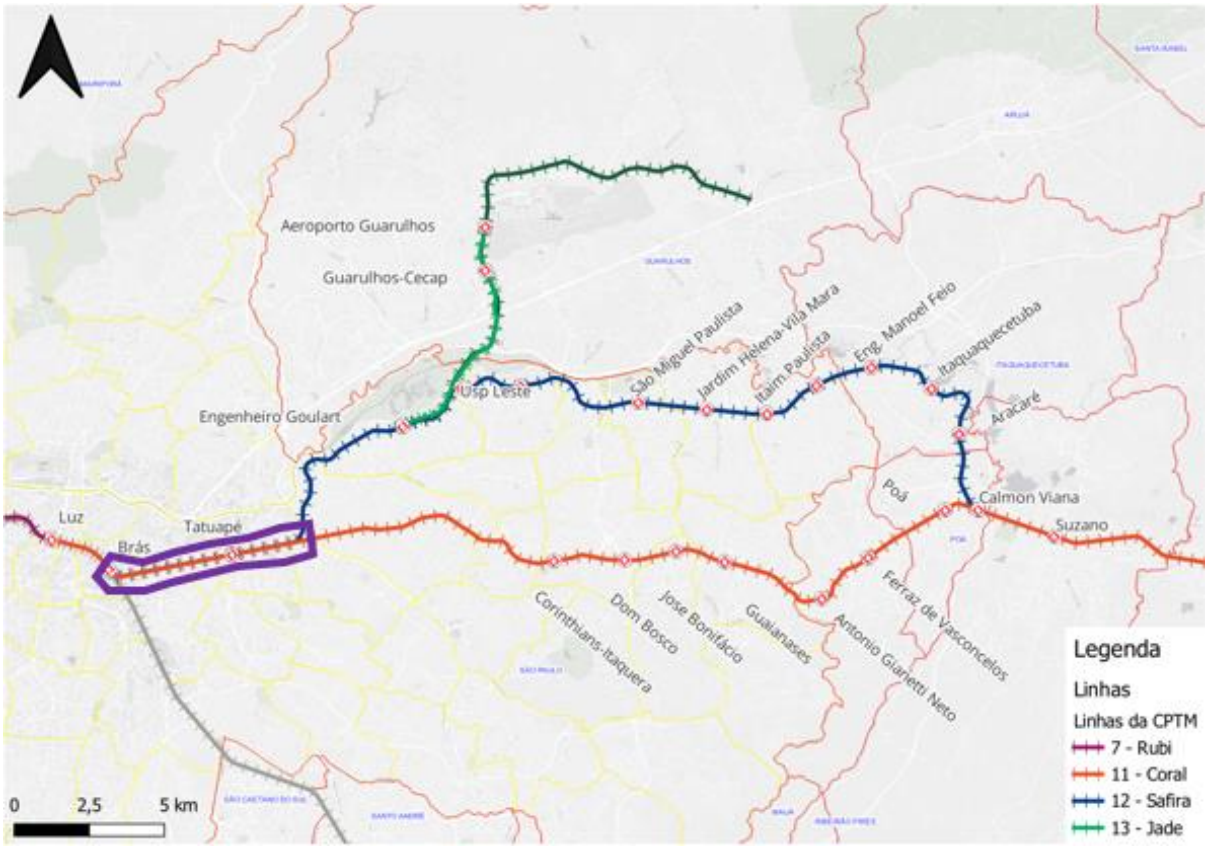
Elaborated by: TYLIN-Egis Consortium.

7.2.2 Brás-SE Engenheiro Gualberto

A 6.26 km long railway segment, belonging to LINE 11 and LINE 12, consists of treated wooden sleepers, TR57 rails and AREMA type turnouts. In addition to passenger transport by train, freight trains circulate on this stretch.

The freight trains share the V3 track of LINE 11 (height of the Belém Yard) and the V2 track of LINE 12.

Figure 171 – Location of the Brás-SE Engenheiro Gualberto section

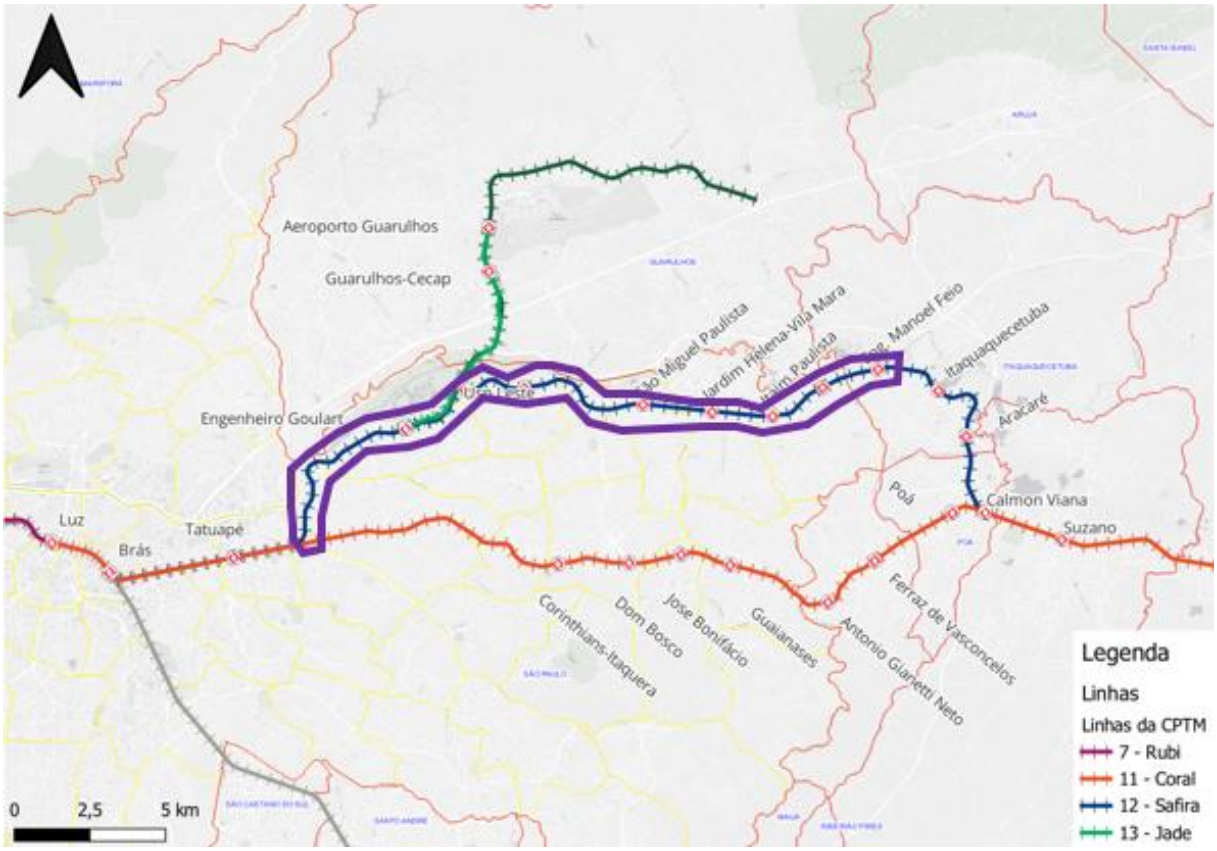


Elaborated by: TYLIN-Egis Consortium.

7.2.3 SE **Engenheiro Gualberto-Engenheiro Manoel Feio**

24 km long stretch, consisting of treated wooden sleepers, TR 57 rails and AREMA type turnouts. This railway segment has two lanes. Both are shared between the rail freight and passenger transport services of LINE 12.

Figure 172 – Location of the SE Engenheiro Gualberto-Engeheiro Manoel Feio section



Elaborated by: TYLIN-Egis Consortium.

7.3 SPECIAL WORKS OF ART

In APPENDIX 2 of this EXHIBIT, the Structures and Special Works of Art along the LINES are listed with the available information.

8 MAINTENANCE SUPPORT INFRASTRUCTURE

8.1 INVENTORY OF MAINTENANCE INFRASTRUCTURE

The maintenance activities of ROLLING STOCK and fixed systems are carried out in the maintenance complexes and bases located along the LINES. The maintenance bases are detailed below: Luz Complex, Engenheiro São Paulo Complex and Calmon Viana Maintenance Base.

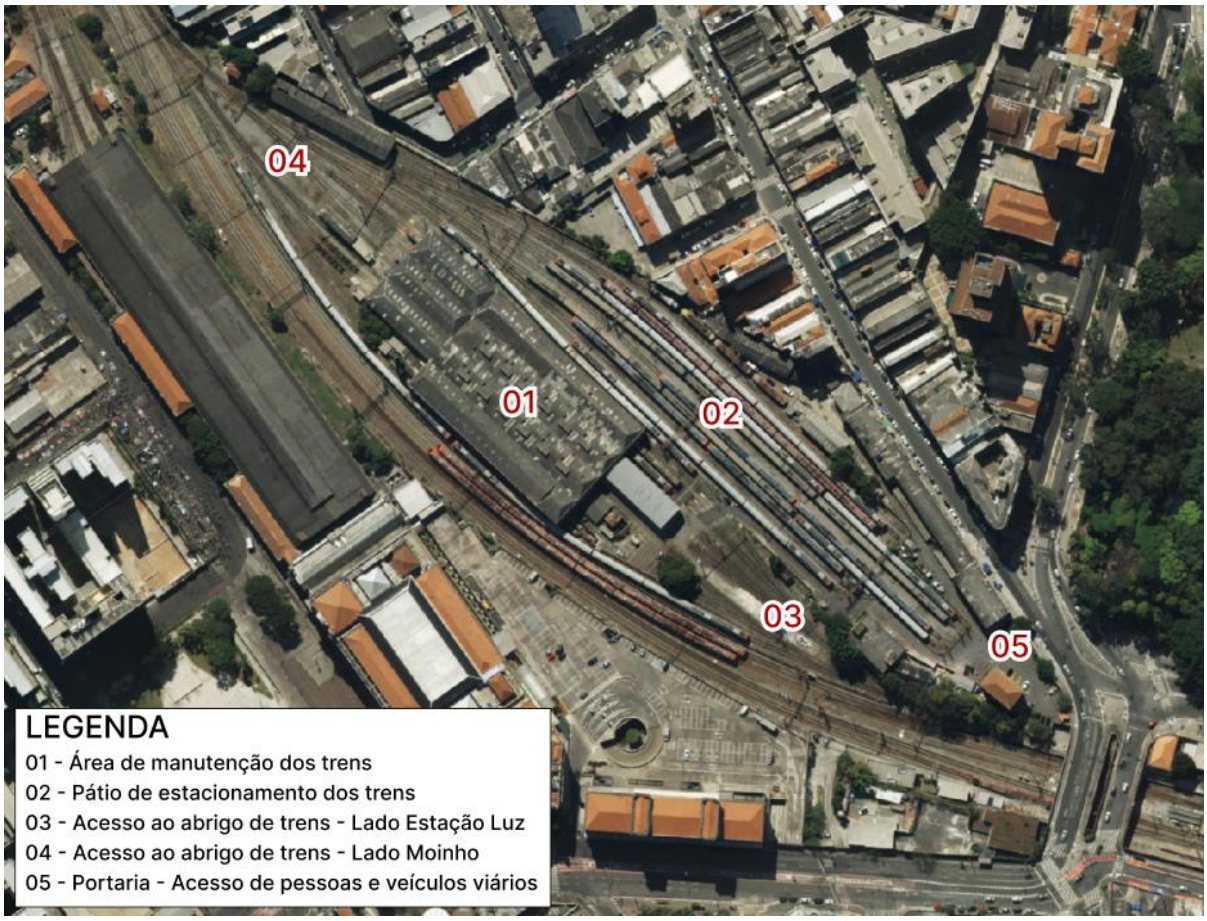
8.1.1 Light Maintenance Complex

The Luz Complex is located near the Luz station, being important for daily light and corrective maintenance, as well as for heavy maintenance type RF that uses the Drop Table equipment to replace revised bogies of the trains of LINES 11-Coral, 12-Sapphire and 13-Jade and also of lines 7-Ruby and 10-Turquoise by CPTM. The Concessionaire Ctrens - Maintenance Company is responsible for the expenses of use, maintenance and conservation of the Luz Complex, based on AGREEMENT 876408301100, signed between CPTM, and the Concessionaire Ctrens - Maintenance Company, on March 19, 2010 and effective until June 14, 2030. The CONCESSIONAIRE will only assume, as provided for in EXHIBITS III.B and III.C, the Luz Complex when the aforementioned administrative concession agreement signed with Ctrens is terminated.

The complex includes a train maintenance shelter and a train parking yard, and the shelter consists of:

- 01 - A technical-administrative building, with 05 tracks for train maintenance and a bogey elevator;
- 02 – A parking yard, which contains the structures for parking up to 13 trains of 8 cars; and
- 03 – Access to the shelter and the Yard, through roads near Estação da Luz and Favela do Moinho, as well as through the access gate for people and road vehicles, located at Rua José Paulino nº 07, Bom Retiro.

Figure 173 - Light Maintenance Complex



Elaborated by: TYLIN-Egis Consortium.

8.1.2 Engenheiro São Paulo Maintenance Complex

The Engenheiro São Paulo Maintenance Complex is composed of the Eng. São Paulo I and II Shelters and the Wheel Milling Machine. The Complex is located between the Roosevelt Shelter and the Tatuapé station and the company CAF is responsible for the Engenheiro São Paulo II Complex, which is responsible for the expenses of use, maintenance, conservation and costing (water, low voltage electricity, compressed air, cleaning, etc.), according to agreement 001822300100, signed in June 2023, with a term of 5 years. Said agreement regulates that CPTM shares the Engenheiro São Paulo II Shelter without restrictions for the maintenance of trains on lines 10, 11, 12 and 13 and the use by CAF, although responsible for the Complex, uses one of the 3 existing railroads in Shelter II for the maintenance of 8500 series trains.

When the CAF agreement ends, either due to the expiration of the term or due to anticipation of the CPTM, the Engenheiro São Paulo II Shelter becomes the exclusive responsibility of the CONCESSIONAIRE. While the Engenheiro São Paulo Complex is under construction, the CONCESSIONAIRE will share the Roosevelt Workshop, which will be under the responsibility of CPTM or its successor for the maintenance of Line 10 trains, the sharing conditions are set out in EXHIBIT III.C.

While the CAF agreement is in force, the expenses of the Engenheiro São Paulo II Shelter will be apportioned among those delegates who will use the Shelter. Likewise, when the CONCESSIONAIRE assumes the leadership of the complex, it may demand the apportionment of expenses with the delegates, with the exception of CPTM, for the maintenance of the trains of Line 10, as executor of this Line.

The complex, located at Rua Bresser Nº 1933A, Brás, São Paulo - SP, has 02 shelters, called Shelter I and Shelter II and 1 wheel milling machine, in addition to auxiliary lines (lines 4 and 5) and other train accesses to both directions of the lines, with the following characteristics:

- 1 – Shelter I: With three lines and capacity to receive 6 trains of 8 cars, whose coverage is approximately 7,700m² of area;
- 2 – Wheel Milling Machine: An exclusive line for wheel machining;
- 3 – Shelter II: With three lines and capacity to receive 3 trains of 8 cars, whose coverage is approximately 5,000m² of area;
- 4 – Auxiliary lines 4 and 5 (inoperative);
- 5 – Access by trains towards Roosevelt and Novo Yard;
- 6 – Access by trains Towards Tatuapé and Belém Yard.

On 10/31/2023, CPTM signed agreement No. 033722000100 with the companies TRAIL INFRAESTRUTURA LTDA and GROSENGENHARIA LTDA, which is currently in execution, for the construction of the blowing ditch on Lines 4 and 5 and the completion of the extension of Shelter I by 25 m, towards Tatuapé Station.

Figure 174 - Engenheiro São Paulo Complex



Elaborated by: TYLIN-Egis Consortium.

The Engenheiro São Paulo complex contains a series of equipment from different manufacturers used in maintenance activities, whose descriptions, quantities and models are described in the following table.

Table 98 - Equipment inventory of the Engenheiro São Paulo maintenance complex

DESCRIPTION	QUANT.	MAKER	MODEL	VENUE / LINE
Forklift - Capacity 2500-9000 kg	1	STILL	CLX-25	Lines 11, 12 and 13
LPG Gas Forklift -Capacity 4000 Kg	1	YALE		Lines 11, 12 and 13
Jack-up - 25 Ton Capacity.	4	WHITING CORP.		Lines 11, 12 and 13
12 Ton Rolante Clutch.	1	ROVELA		Lines 11, 12 and 13
Compressed Air Compressor	2	ATLAS COPCO	GA37FF	Lines 11, 12 and 13
Compressed Air Reservoir - Category IV	1	ATLAS COPCO		Lines 11, 12 and 13

Fonte: CPTM, 2024

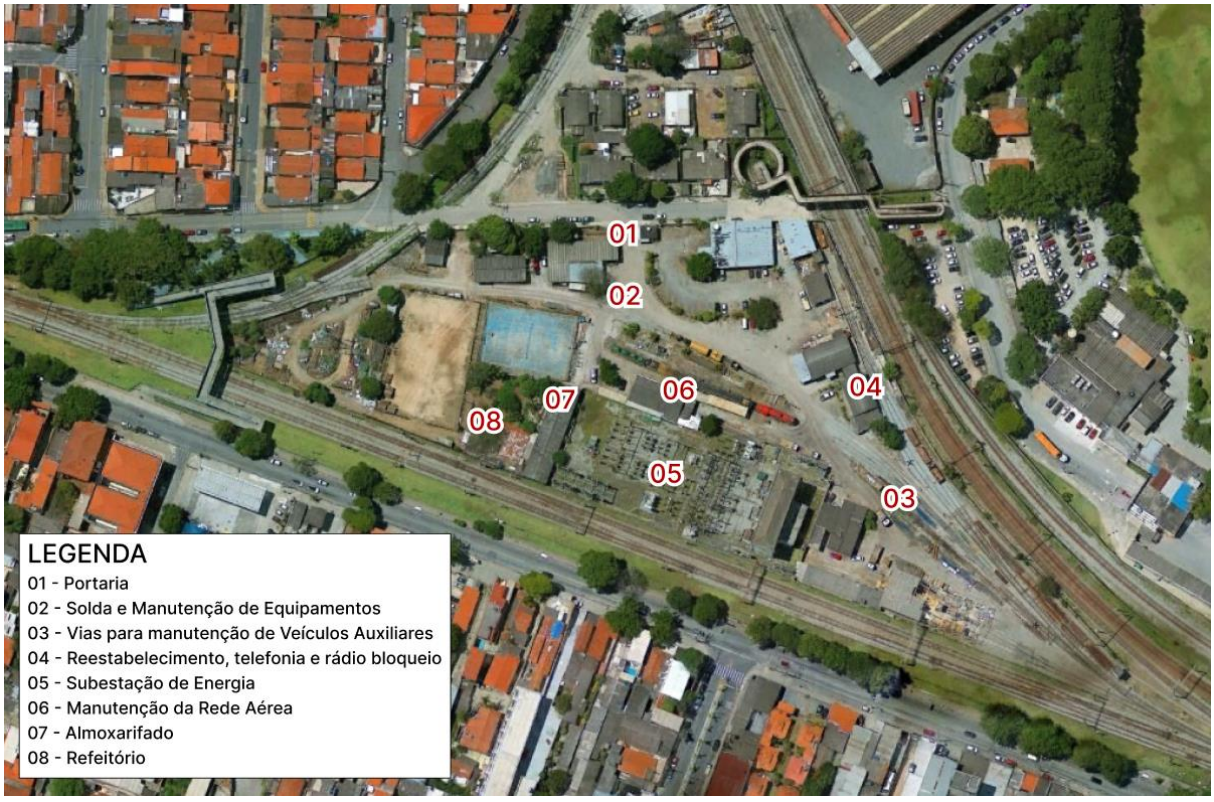
8.1.3 Calmon Viana maintenance base

The Calmon Viana maintenance base is located, near the station of the same name, in a triangle formed by LINE 11 and LINE 12. The maintenance of its infrastructure is carried out by CPTM itself. The base has an area of approximately 25,000 m², with support areas and equipment used in the maintenance activities of LINE 11 and LINE 12. The tamping leveler and track aligner, the tamping machine, aligner and turnout leveler and the ballast regulator are usually parked on site. The areas of support are:

- 1. Entrance: with approximately 40m² of area, intended for the control of road access to the Base;

- 2. Welding and Maintenance of Equipment with approximately 420m² of area, intended for welding and maintenance of the various equipment of the Fixed Systems;
- 3. Roads for maintenance of Auxiliary Vehicles: approximately 100m long;
- 4. Reestablishment, telephony, radio and blockades: with approximately 400m² of area, intended for the maintenance teams of the Fixed Systems;
- 5. Power Substation: with approximately 3,800m² of area;
- 6. Maintenance of the Aerial Network: with approximately 340m² of area, intended for the maintenance teams of the Aerial Network system;
- 7. Warehouse: with approximately 360m² of area, intended for the storage of equipment, materials and tools; and
- 8. Cafeteria: with approximately 40m² of area.

Figure 175 - Calmon Viana Maintenance Base



Elaborated by: TYLIN-Egis Consortium.

8.2 CONSUMABLES, TURNING, SPARE PARTS AND SPECIAL TOOLS

Consumables, turning materials, spare parts and special tools in conditions of use will be listed to the CONCESSIONAIRE in the PRE-OPERATIONAL PHASE, through an INVENTORY of the CONCESSION ASSETS. The relationships identified below, contained in the items 8.2.1, 8.2.2 and , will be updated due to the use of the materials by CPTM, in the interim of the preparation of the NOTICE, signing of the AGREEMENT and beginning of the COMMERCIAL OPERATION.

(i) The consumables, turning materials, spare parts and special tools, identified in the last list to be issued at the beginning of the SERVICES granted, will constitute items of the CPTM warehouse and its maintenance area, which are used in the general maintenance of the SERVICES and will be made available to the CONCESSIONAIRE, under the terms of the INVENTORY. Therefore, as the executor of the SERVICE of the LINES, as well as the AIRPORT EXPRESS SERVICE, CPTM performs its maintenance, including until the beginning of the COMMERCIAL OPERATION. It is only support material for the beginning of the COMMERCIAL OPERATION, which must be fully returned when the CONCESSION is terminated, under the terms of the AGREEMENT. If equivalence is not possible, they must be replaced by materials that allow the same use and performance. During the PRE-OPERATIONAL PHASE, the related assets will be listed to the CONCESSIONAIRE, which must gradually assume their maintenance, adopting maintenance plans, corrective, preventive and predictive service programs so that the provision of the SERVICES does not suffer a solution of continuity.

(ii) Regardless of the existence of unusable material in the yards, according to the areas indicated above, the CONCESSIONAIRE is responsible for the treatment and final disposal of such material, according to current legislation, and others that it may identify throughout the CONCESSION AREA, and in the latter case it must list the material to be discarded, informing the GRANTING AUTHORITY in advance.

8.2.1 Train Spares

Considering that the following list refers to exclusive spare parts of the ROLLING STOCK, such materials will be made available to the CONCESSIONAIRE and will be listed to it in the PRE-OPERATIONAL PHASE, as provided for and under the conditions contained in item 8.2.

8.2.1.1 2500 Series

The 2500 series trains manufactured and supplied by Temoinsa-Sifang, agreement STM/005/2017 are no longer under agreementual warranty. The maintenance of the 2500 series trains is currently carried out by CPTM with some support from Temoinsa-Sifang, at the Engenheiro São Paulo Shelter

Table 99 – 2500 Series Train Spares on 01/09/2024

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
1	86074	SILL, ACCESS DOOR TO THE HALL, USED IN SERIES 2500 TRAINS	32

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
2	86075	GUIDE BAR, ACCESS DOOR TO THE HALL, USED ON 2500 SERIES TRAINS	32
3	86076	ROLLING BASE, ACCESS DOOR TO THE HALL, USED IN 2500 SERIES TRAINS	32
4	86077	ELECTRIC MOTOR, WINDSHIELD WIPER SPARE PART, 2500 SERIES TRAINS	6
5	86078	ROLLING BASE, ACCESS DOOR TO THE HALL, USED IN 2500 SERIES TRAINS	32
6	86080	WINDSHIELD, USED IN SERIES 2500 TRAINS	20
7	86081	LAMINATED GLASS, SPARE PART FOR HEADLIGHT, USED IN 2500 SERIES TRAINS	20
8	86082	ADJUSTMENT SHIM, THICKNESS 1MM, FOR WINDSHIELD, SERIES 2500 TRAINS	720
9	86083	SET ROD, WIPER BLADE AND NOZZLE, WINDSHIELD WIPER REPLACEMENT PART	16
10	86087	PASSENGER SEAT, LEFT LONGITUDINAL TYPE, 1 SEAT, 2500 SERIES TRAINS	6
11	86088	ADJUSTMENT SHIM, THICKNESS 3MM, FOR WINDSHIELD, SERIES 2500 TRAINS	720
12	86089	PASSENGER SEAT, RIGHT LONGITUDINAL TYPE, 1 SEAT, 2500 SERIES TRAINS	6
13	86090	ARRUELA DE BORRACHA, DIAM EXT 50MM, DIAM INT 17MM, ESP 1MM, TRENS SERIE 2500	256
14	86091	ARRUELA DE BORRACHA, DIAM EXT 51MM, DIAM INT 17MM, ESP 3MM, TRENS SERIE 2500	128
15	86092	ARRUELA DE BORRACHA, DIAM EXT 52MM, DIAM INT 17MM, ESP 5MM, TRENS SERIE 2500	128
16	86093	PASSENGER SEAT, TRANSVERSE TYPE, 4 SEATS, OF 2500 SERIES TRAINS	7
17	86094	ADJUSTMENT SHIM, THICKNESS 5MM, FOR WINDSHIELD, SERIES 2500 TRAINS	640
18	86095	PARAPHUSE M6 X 35MM, REPOSICAO FOR WINDSHIELD, 2500 SERIES TRAINS	320
19	86096	AUTOMATIC ENGATE TYPE SCHARFENBERG, USED IN 2500 SERIES TRAINS	2
20	86097	AUTOMATIC INTER-UNIT ENGATE, USED BY 2500 SERIES TRAINS	2
21	86098	PASSENGER SEAT, LONGITUDINAL TYPE, 6 SEATS, 2500 SERIES TRAINS	4
22	86099	SEMI-PERMANENT RIGID SIDE ENGATE, USED NOS SERIES 2500 TRAINS	6
23	86100	SEMI-PERMANENT COUPLING SIDE WITH SHOCK ABSORBER, USED IN SERIES 2500 TRAINS	7
24	86101	FRONT MASK WITH HOOD, USED ON 2500 SERIES TRAINS	2
25	86102	PASSENGER SEAT, LONGITUDINAL TYPE, 4 SEATS, 2500 SERIES TRAINS	1

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
26	86103	LEFT SKIRT, FOR FRONT MASK, WITH FASTENERS, 2500 SERIES TRAINS	2
27	86104	STRAIGHT SKIRT, FOR FRONT MASK, WITH FASTENERS, SERIES 2500 TRAINS	2
28	86105	PARAPHUSE M8 X 30MM, REPOSICAO FRECKLE FOR FRONT MASK, TRENS SERIES 2500	71
29	86106	PARAPHUSE M8 X 35MM, REPOSICAO FRECKLE FOR FRONT MASK, TRAINS SERIES 2500	76
30	86107	PASSENGER SEAT, LONGITUDINAL TYPE, 6 SEATS, 2500 SERIES TRAINS	1
31	86108	PORCA M8, REPOSICAO FRECKLE FOR FRONT MASK, USED IN TRENS SERIES 2500	146
32	86109	8MM ROD, REPOSICAO FRECKLE FOR FRONT MASK, TRENS SERIE 2500	293
33	86110	PARAPHUSE M8 X 50MM, REPOSICAO PECCA FOR FRONT MASK, TRENS SERIE 2500	10
34	86111	DRIVER'S SEAT, USED IN 2500 SERIES TRAINS	4
35	86112	AIR COMPRESSOR, MODEL VV180-T 2.0, USED IN SERIES 2500 TRAINS	6
36	86113	AUXILIARY CABIN SEAT, USED IN SERIES 2500 TRAINS	4
37	86114	EMERGENCY BREAK, USED BY TRAINS SERIES 2500	8
38	86115	WINDSHIELD WASHER NOZZLE RESERVOIR, WITH ELECTRIC PUMP, TRAIN 2500	8
39	86116	CABIN-LOUNGE ACCESS DOOR COMPLETE WITH LOCK, SERIES 2500 TRAINS	2
40	86117	AIR SPRINGS, FOR SECONDARY SUSPENSION, USED IN 2500 SERIES TRAINS	8
41	86119	LTZ015 DOUBLE CHAMBER AIR DRYER, USED IN 2500 SERIES TRAINS	2
42	86120	GROUNDING BRUSH SYSTEM, USED IN 2500 SERIES TRAINS	1
43	86125	EVENT RECORDER, USED IN 2500 SERIES TRAINS	2
44	86126	FINGERPRINT READER, USED ON 2500 SERIES TRAINS	2
45	86127	ACCELERATION SENSOR, USED IN 2500 SERIES TRAINS	2
47	86129	EIXO RAILWAY, ENGINE BARTER, USED NOS TRAINS SERIES 2500	2
48	86130	EIXO RAILWAY, BARTER OVERFLOW, USED NOS TRAINS SERIES 2500	8
49	86131	SPECIAL HEX BOLTS M10X35MM, GANGWAY BETWEEN CARS AND SEMI-UNITS	240
50	86132	GANGWAY BELLOWS BETWEEN CARS, COMPLETE, USED IN 2500 SERIES TRAINS	2

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
52	86134	MOBILE TRANSITION BOARD, FOR GANGWAY BETWEEN CARS, TRAINS SERIES 2500	2
53	86135	MOBILE BOARD TRANSITION BRACKET, FOR GANGWAY BETWEEN CARS, 2500 SERIES TRAINS	6
55	86141	CALIPER WITHOUT PARKING BRAKE, USED IN SERIES 2500 TRAINS	2
56	86142	CALIPER WITH PARKING BRAKE, USED IN SERIES 2500 TRAINS	2
64	86150	LIGHTNING RODS, USED IN 2500 SERIES TRAINS	4
65	86151	HALL BUTTON, USED ON 2500 SERIES TRAINS	64
66	86153	HEADLIGHT, USED IN 2500 SERIES TRAINS	8
67	86162	LEAF OF THE ACCESS DOOR TO THE HALL, RIGHT, USED IN THE 2500 SERIES TRAINS	32
68	86166	LEAF OF THE ACCESS DOOR TO THE HALL, LEFT, USED IN THE 2500 SERIES TRAINS	32
69	86171	RESERVOIR, FRIEZE LUBRICATOR, 2500 SERIES TRAINS	4
70	86174	DISTRIBUTOR, FRIEZE LUBRICATOR, TRAINS SERIES 2500	4
71	86175	NOZZLE FOR CRIMP LUBRICATOR, USED IN 2500 SERIES TRAINS	8
72	86176	ELECTRICAL CONTROL BOX FOR CRIMP LUBRICATOR, 2500 SERIES TRAINS	4
73	86177	HOSE FOR FRISO LUBRICATOR, USED IN SERIES 2500 TRAINS	12
74	86178	FIRE EXTINGUISHER IN THE PASSENGER LOUNGE, USED ON 2500 SERIES TRAINS	8
75	86179	COMPLETE GANGWAY BELLOWS FOR GANGWAY BETWEEN CARS, USED IN 2500 SERIES TRAINS	3
76	86238	GANGWAY PEDAL (100X1600X4), USED ON SERIES 2500 TRAINS	4
77	86239	GANGWAY PEDAL (100X1600X1), USED ON 2500 SERIES TRAINS	4
78	86240	FIXED GANGWAY PASSAGE PLATE BETWEEN SEMI UNITS, 2500 SERIES TRAINS	6
79	86241	MOBILE GANGWAY CROSSING PLATE BETWEEN SEMI UNITS, 2500 SERIES TRAINS	6
80	86242	GANGWAY MOVING CROSS-PLATE BRACKET, USED ON 2500 SERIES TRAINS	18
82	86244	GANGWAY WEAR PLATE BETWEEN SEMI-UNITS, USED IN 2500 SERIES TRAINS	6
84	86255	LEFT WHITE AND RED HEADLIGHT, WITH LAMP BODY, TRAINS 2500	8
85	86257	PASSENGER SEAT, LONGITUDINAL TYPE, 6 SEATS, 2500 SERIES TRAINS	1

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
86	86258	WHITE AND RED RIGHT HEADLIGHT, WITH LAMP BODY, TRAINS 2500	8
87	86259	LEFT MOUNTING BRACKET FOR HEADLIGHT, USED ON 2500 SERIES TRAINS	8
88	86260	LEFT SEALING PAD, FOR HEADLIGHT, USED IN SERIES 2500 TRAINS	8
89	86261	RIGHT MOUNTING BRACKET FOR HEADLIGHT, USED ON 2500 SERIES TRAINS	8
90	86262	RIGHT SEALING PAD, FOR HEADLIGHT, USED IN SERIES 2500 TRAINS	8
91	86263	INLET END CONNECTOR, FOR OPERATING LIGHT BODY, TRAINS 2500	16
92	86303	BATTERY BANK, WITH JUMPER CABLE, USED IN 2500 SERIES TRAINS	1
93	86304	COMPLETE BATTERY BOX WITH LID, STANDARD LOCK AND TROLLEY,2500 SERIES TRAIN	1
95	86623	STEEL FRAME, FOR WINDSHIELD, USED IN SERIES 2500 TRAINS	20
96	86661	WINDSHIELD DAMPING RUBBER, USED ON 2500 SERIES TRAINS	20
97	86662	WINDSHIELD INSTALLATION RUBBER, USED IN 2500 SERIES TRAINS	20
102	86719	GANGWAY LED SCREEN, FOR MULTIMEDIA SYSTEM, USED IN 2500 SERIES TRAINS	1
104	86721	PASSENGER LOUNGE LOUDSPEAKERS, FOR PUBLIC ADDRESS SYSTEM, TRAINS 2500	2
107	86724	NOISE SENSOR IN THE PASSENGER LOUNGE, USED ON 2500 SERIES TRAINS	4
108	86725	CAB MICROPHONE, USED ON 2500 SERIES TRAINS	2
109	86726	CAB SPEAKER, USED ON 2500 SERIES TRAINS	16
110	86727	DRIVER'S CAB CAMERA, USED ON 2500 SERIES TRAINS	4
111	86728	FRONT CAMERA WITH PAINTED COVER AND CONNECTORS (COMPLETE SET), TRAINS 2500	2
112	86729	FRONT CAMERA OF ENGATE W/ PAINTED TAMPA E CONNECTORS, TRAINS SERIES 2500	2
113	86730	PANTOGRAPH AND CATENARY CAMERA WITH PAINTED COVER AND CONNECTOR, 2500 SERIES TRAINS	4
114	86731	REARVIEW CAMERA WITH RED COLOR COVER AND CONNECTOR, 2500 SERIES TRAINS	8
115	86732	DIGITAL VIDEO RECORDER FOR CAR BOARD, TRAINS SERIES 2500	2
125	86742	DIGITAL CABINE VIDEO RECORDER, 2500 SERIES TRAINS	2
127	86744	4G NETWORK ANTENNA AND GPS SIGNAL, 2500 SERIES TRAINS	2

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
128	86745	WI-FI NETWORK ANTENNA, 2500 SERIES TRAINS	2
129	86746	PASSENGER LOUNGE AIR CONDITIONING UNIT, 2500 SERIES TRAINS	2
130	86747	CAB AIR CONDITIONING UNIT WITH CONTROLLER, SERIES TRAINS	1
131	86748	TERRESTRIAL PIS COMMUNICATION DEVICE ON BOARD A CAR, TRAINS SERIES 2500	2
132	86750	L-TYPE CONTROL CABINET, FOR CAR WITH CAB, 2500 SERIES TRAINS	2
133	86751	INTERMEDIATE CAR CONTROL PANEL 1, 2500 SERIES TRAINS	2
134	86752	DESTINATION INDICATOR PANEL, LED SCREEN, 2500 SERIES TRAINS	2
135	86753	2 CONTROL PANEL OF THE INTERMEDIATE CAR, 2500 SERIES TRAINS	2
136	86754	RADIO STAKE, TRAINS SERIES 2500	2
137	86755	RADIO POWER CONVERTER, TRAINS SERIES 2500	8
138	86756	RADIO ANTENNA, TRAINS SERIES 2500	64
139	86757	EMERGENCY COMMUNICATION UNIT, 2500 SERIES TRAINS	1
140	86758	POLYCARBONATE TILTING WINDOW IN PASSENGER LOUNGE, 2500 SERIES TRAINS	120
141	86759	AUXILIARY AIR COMPRESSOR, 2500 SERIES TRAINS	2
142	86760	GANGWAY LIGHT, 2500 SERIES TRAINS	28
143	86761	INTERIOR DOOR INDICATOR LIGHT COMPONENTS, 2500 SERIES TRAINS	64
144	86762	EXTERIOR DOOR INDICATOR LIGHT COMPONENTS, 2500 SERIES TRAINS	16
145	86763	MAIN CAB LIGHT, 2500 SERIES TRAINS	4
146	86764	READING LIGHT, SERIES 2500 TRAINS	4
147	86765	PAINEL LIGHT, TRAINS SERIES 2500	6
148	86766	CONSOLE LIGHT, TRAINS SERIES 2500	2
149	86767	MAIN LIGHTING FIXTURE I, SERIES TRAINS 2500	188
150	86768	MAIN LIGHTING LUMINAIRE II, TRAINS SERIES 2500	288
151	86769	MAIN LIGHTING FIXTURE III, TRAINS SERIES 2500	2

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
152	86770	AUXILIARY LIGHTING LUMINAIRE I, TRAINS SERIES 2500	48
153	86771	AUXILIARY LIGHTING LUMINAIRE II, TRAINS SERIES 2500	48
154	86772	AUXILIARY LIGHTING LIGHT III, 2500 SERIES TRAINS	2
155	86773	MAIN LIGHTING IV LUMINAIRE, TRAINS SERIES 2500	6
156	86774	MAIN LIGHTING V LUMINAIRE, TRAINS SERIES 2500	6
157	86775	AUXILIARY LIGHTING IV LUMINAIRE, 2500 SERIES TRAINS	18
158	86776	LUMINAIRE COMPONENTS FOR CABINET MAINTENANCE, 2500 SERIES TRAINS	8
185	86803	FULL SET OF PNEUMATIC PANTOGRAPH LIFTING PANEL, 2500 TRAINS	2
186	86804	PANTOGRAPH SWITCH SWITCH, 2500 SERIES TRAINS	2
187	86806	INTERNAL EMERGENCY SAIDA DEVICE, P/ PORTA DO SALAO, TRAINS SERIES 2500	32
188	86807	INTERNAL ROPE OF EMERGENCY AIDA DEVICE, 2500 SERIES TRAINS	32
189	86808	EXTERNAL ROPE OF EMERGENCY AIDA DEVICE, TRAINS SERIES 2500	32
190	86809	KEY BOX AND SAFETY INTERLOCK BOX, 2500 SERIES TRAINS	2
191	86810	EXTERNAL SERVICE KEY, FOR PASSENGER LOUNGE DOOR, 2500 SERIES TRAINS	32
192	86811	HIGH VOLTAGE ELECTRICAL BOX, 2500 SERIES TRAINS	2
193	86812	AUXILIARY STATIC CONVERTER (COMPLETE SET), 2500 SERIES TRAINS	8
194	86813	AUXILIARY STATIC CONVERTER POWER SUPPLY, 2500 SERIES TRAINS	10
197	86816	ELECTRONIC CARD STATIC INVERTER TRACTION CONTROL, 2500 SERIES TRAINS	8
201	86820	MAIN PORT CONTROLLER UNIT (INCLUDING MVB DCU), 2500 SERIES TRAINS	32
208	86828	COMPLETE SET OF HIGH SPEED CIRCUIT BREAKERS, 2500 SERIES TRAINS	2
209	86829	FILTRATION NETWORK COMPONENTS, 2500 SERIES TRAINS	2
211	86831	REFRIGERATION FAN, P/ TRACAO INVERTER, TRAINS SERIES 2500	1
230	86852	COMPLETE BRAKE RESISTOR TR8179, SERIES 2500 TRAINS	2
233	86855	TRACAO ENGINE, 2500 SERIES TRAINS	6

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
234	86856	RODA FERROVIARIA, TRENS SERIES 2500	16
244	86940	HALL DOOR LEAVES MECHANICAL LOCK MECHANISM, S3 MODULE	32
245	86941	DOOR OPENING AND CLOSING MECHANISM, SERIES 2500 TRAINS	32
246	86942	DOOR OPENING AND CLOSING MECHANISM, W/ SLAVE CONTROL, SERIES 2500 TRAINS	32
254	86950	LEVELING VALVE, POSICOES L03/L12, 2500 SERIES TRAINS	4
255	86951	LEVELING VALVE, POSICAO L02, 2500 SERIES TRAINS	8
256	86952	SET OF ASSEMBLED INTERNAL AND EXTERNAL SPRINGS, FOR BOGIE, SERIES 2500 TRAINS	16
257	86953	COMMAND AND CONTROL CARD SET, VCU1-SFM63 UNIT, SERIES 2500 TRAINS	2
258	86954	COMMAND AND CONTROL CARD SET, VCU2-SFM63 UNIT, 2500 SERIES TRAINS	2
259	86955	SET OF CARDS FOR COMMAND AND CONTROL, RIOM-SFM63 UNIT, SERIES 2500 TRAINS	6
294	87471	REARVIEW CAMERA WITH SILVER COVER AND CONNECTOR, 2500 SERIES TRAINS	8

Fonte: CPTM, 2024.

Table 100 - Consumables for the 2500 Series trains, as of 01/09/2024

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
4	85943	CJ HALF ADT 60E1-150 R1196 (22.5 kN/mm) RIGHT W/O PLATES	1,00
5	85944	CJ HALF ADT 60E1-150 R1196 (22.5 kN/mm) LEFT W/O PLATES	1,00
6	85950	CJ HALF ADT 60E1-300 R750.25 (22.5 kN/mm) RIGHT W/O PLATES	1,00
7	85952	CJ HALF ADT 60E1-300 R1200 (22.5 kN/mm) LEFT W/O PLATES	1,00
8	85954	CJ HALF ADT 60E1-300 R754.25 (22.5 kN/mm) LEFT W/O PLATES	1,00
9	85957	CJ HALF ADT 60E1-150 R754 (22.5 kN/mm) RIGHT W/O PLATES	1,00
10	85958	CJ HALF ADT 60E1-150 R754 (22.5 kN/mm) LEFT W/O PLATES	1,00
11	86963	LEFT STRAIGHT ADT MEDIUM	1,00
12	86964	STRAIGHT RIGHT ADT MEANS	1,00
13	86965	SKL12 CLAMP, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	6,00
14	86966	SKL 3 CLAMP - KTL PROTECTION, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	38,00
15	86967	SAKP-2 CLAMPING CLIP, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	38,00
16	86968	T BOLT FOR SKL12 CLAMP AND SKL 3 CLAMP, HS 32-65-8.8, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	44,00
17	86971	T-BOLT FOR SKL 15 HS 32-130-5.6, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	26,00
18	86973	5 X 40 ISO-1234 GALVANIZED COTTER PIN, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	70,00
19	86974	PLASTIC INSERT, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	42,00
20	86975	SAZW 5 SPACER, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	32,00
21	86976	SAZW 9 SPACER, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	6,00

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
22	86977	SAZW 10 INSOLE, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	6,00
23	86978	PHILIPS SLOTTED SCREW 5 X 25 FOR FIXING CLIP SAKP-2, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	84,00
24	86979	SKL 15 CLAMP - KTL PROTECTION, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	26,00
25	86980	SAKP-2A CLAMPING CLIP, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	4,00
26	86981	HEX NUT M22 ISO 4035, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	4,00
27	86993	SHORTENED T-BOLT HS 26-65-8.8, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	4,00
28	86994	FURP 206-40 VULCANIZED BACKING PLATE, STIFFNESS 22.5 KN/MM, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	18,00
29	86995	FURP 206-40/1 VULCANIZED BACKING PLATE, STIFFNESS 22.5 KN/MM, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	6,00
30	86996	FURP 1211 VULCANIZED SUPPORT PLATE, STIFFNESS 22.5 KN/MM, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	6,00
31	86997	FURP 1203 VULCANIZED SUPPORT PLATE, STIFFNESS 22.5 KN/MM, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	26,00
32	86998	INTERMEDIATE PLATE M 1203, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	24,00
33	86999	INTERMEDIATE PLATE M 1204 L (LEFT), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	1,00
34	87000	INTERMEDIATE PLATE M 1204 R (DIR), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	1,00
35	87001	NEEDLE CLAMPING PLATE D 1203, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	20,00
36	87002	NEEDLE CLAMPING PLATE D 1204 L (LEFT), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	1,00
37	87003	NEEDLE CLAMPING PLATE D 1204 R (DIR), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	1,00
38	87004	NEEDLE CLAMPING PLATE D 1205 L (LEFT), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	1,00
39	87005	NEEDLE CLAMPING PLATE D 1205 R (DIR), APPLICATION RAIL EXPANDERS (ADT'S) LINE 13	1,00
40	87006	NEEDLE CLAMPING PLATE D 1206 L (LEFT), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	1,00
41	87007	NEEDLE CLAMPING PLATE D 1206 R (DIR), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	1,00
42	87008	SAZW 11 INSOLE (UNDER RAIL), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	26,00
43	87009	SAZW 12 INSOLE (UNDER RAIL), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	26,00
44	87010	INSOLE WITH FLAPS SAZW 13, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	26,00
45	87011	SAZW 8 INSOLE, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	6,00
46	87012	SAZW 6 INSOLE, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	26,00
47	87013	SAZW 7 INSOLE, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	24,00
48	87014	SAZW 14 INSOLE, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	24,00
49	87015	ADJUSTMENT PLATE FOR NEEDLE CLAMPING PLATE 34-2/3, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	32,00
50	87016	ADJUSTMENT PLATE FOR INTERMEDIATE PLATE 35-2/3, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	38,00
51	87017	SAZW 15 INSOLE, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	2,00
52	87018	KA 10 COVER, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	224,00
53	87019	SAZW 16 INSOLE (UNDER RAIL), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	24,00
54	87020	UPF 6-1 HEIGHT ADJUSTMENT INSOLE, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	120,00
55	87021	HEIGHT ADJUSTMENT INSOLE UPF 1203-6, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	52,00

ID	CPTM CODE	ITEM DESCRIPTION	BALANCE
56	87022	ADJUSTMENT BUSHING EK 2-0, FOR GAUGE CORRECTION, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	112,00
57	87023	HEX HEAD SCREW M27 X 285 - 8.8 - A3P, ISO 4014, GALVANIZED, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	112,00
58	87024	GALVANIZED DISC SPRING, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	224,00
59	87025	ADJUSTMENT BUSHING EK 2-2, FOR GAUGE CORRECTION, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	112,00
60	87026	ADJUSTMENT BUSHING EK 2-4, FOR GAUGE CORRECTION, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	112,00
61	87032	FLAT WASHER 30MM ISO 7089, PAD SYSTEM (ERL-P), APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	224,00
62	87039	T SCREW SET FOR CLIP SAKP-2 HS 26-65-8.8	38,00
63	87040	DOUBLE PRESSURE WASHER DIAM25 X 10 X 6	38,00
64	87041	HEX NUT M22-5 SW40H25 A4P GALVANIZED, APPLICATION RAIL SOFTENERS	38,00
65	87042	ULS6 WASHER + CASTLE NUT M22 DIN-935 GALVANIZED SET, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	70,00
66	87043	ULS6 WASHER + CASTLE NUT M22 DIN-935 GALVANIZED SET, APPLICATION RAIL EXPANSION DEVICES (ADT'S) LINE 13	70,00
67	87050	ISOLANTE IB 7 BUCHA	112,00
68	68762	TR-68 9144MM RIGHT NEEDLE DERIVED	2,00
69	68760	TR-68 9144MM STRAIGHT RIGHT NEEDLE	2,00
70	71192	TR-68 9144MM LEFT NEEDLE DERIVED	2,00
71	68761	TR-68 9144MM LEFT STRAIGHT NEEDLE	2,00
72	83267	OVERPASS FORM, SKV PROCESS, TR-57 TO TR-68 PROFILE RAIL, RIGHT (LD), ALUMINOTHERMIC WELDING APPLICATION	20,00
73	83265	OVERPASS FORM, SKV PROCESS, TR-57 TO TR-68 PROFILE RAIL, LEFT (LE), ALUMINOTHERMIC WELDING APPLICATION	20,00
74	79113	GLUED INSULATING JOINT (JIC), RAIL CUT 135/90 GR, TR-68 PROFILE, COMP 3MX3M	17,00
75	79112	GLUED INSULATING JOINT (JIC), RAIL CUT 45/90 GR, TR-68 PROFILE, COMP 3MX3M	2,00
76	40514	SPECIFIC POLYETHYLENE ELASTIC INSOLE, AMV APPLICATION, TR-68 RAIL	3.406,00
77	15556	INSULATING PROFILE (INSULATING TOP), NYLON 6.6, ESP 6MM, 90 DEGREE CUT, FOR TR-68 RAIL	150,00
78	70098	RAILWAY TRILHO, TR-68 PROFILE, INTERMEDIATE RESISTANCE ACO (IH), COMP 12M	221,95

Fonte: CPTM, 2024.

8.2.1.2 7000 Series

The trains are currently provided by CPTM, and VIAMOBILIDADE is responsible for their maintenance, and any inadequacies in the condition of the trains must be dealt with in accordance with the provisions of this EXHIBIT and the AGREEMENT.

8.2.1.3 8000 Series

The 876408301100 agreement was signed between CPTM and the concessionaire CTrens – Companhia de Manutenção on March 19, 2010, valid until June 2030. This agreement establishes specialized technical engineering services for the preventive and corrective maintenance of the 36 8000 Series

trains, with the supply of labor, materials and inputs, following pre-defined standards of quality, reliability and availability.

8.2.1.4 8500 Series

In agreement No. 001822300100 signed between CAF Brasil and CPTM there is a clause that indicates that *"CPTM will make available to the contractor a batch of spare parts, devices and tools for general and special use necessary for the maintenance of the trains. These materials, under normal conditions of use, are listed and quantified in Exhibit A2 (Train Spare) and Exhibit A3 (Special Train Tools) ..."*

In this same document it is pointed out that "*At the end of the agreement, all special and spare tools must be returned to CPTM in the same quantities and under normal conditions for use, at no additional cost to CPTM".*

The following tables show the list of spare parts and special tools for the 8500 series trains.

Table 101 – Spare parts of the 8500 Series trains

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
1	80973	AUTOMATIC COUPLINGS (FOR MOTOR CARS).	one	3
2	80974	AUTOMATIC ENGATE BETWEEN SEMI UNITS	one	2
3	80410	SEMI-PERMANENT, SEMI-DAMPED HITCH	one	4
4	80411	SEMI-PERMANENT ENGATE, SEMI-BAR RIGID SIDE	one	4
5	80412	GANGWAY SET BETWEEN CARS COMPLETE WITH BELLOWS, PLATES AND LOWER AND UPPER SUPPORTS FOR PASSAGE, AND SUPPORT FOR THE HITCH	one	1
6	80413	GANGWAY SET BETWEEN SEMI UNITS COMPLETE WITH BELLOWS, PLATES AND LOWER AND UPPER SUPPORTS FOR PASSAGE, AND SUPPORT FOR THE HITCH	one	2
7	82671	HOSE ASSEMBLY (JUMPER CABLE) BT EXC3-PO, 4025 MM LENGTH	one	4
8	82672	HOSE ASSEMBLY (JUMPER CABLE) BT EXC4-NO, 3645 MM LENGTH	one	4
9	82673	HOSE ASSEMBLY (JUMPER CABLE) BT EXC5-NO, 3335 MM LENGTH	one	4
10	82674	HOSE ASSEMBLY (JUMPER CABLE) BT EXC6-AP, 3030 MM LENGTH	one	4
11	82675	HOSE SET (JUMPER CABLE) BT EXC7-ETH, 2760 MM LENGTH	one	4
12	82676	ACXC1 HOSE (JUMPER CABLE) ASSEMBLY, 1345 MM LENGTH	one	4
13	82677	ACXC2 JUMPER CABLE ASSEMBLY, 1345 MM LENGTH	one	4
14	82678	HOSE ASSEMBLY (JUMPER CABLE) BT EXC8-ATC, 1680 MM LENGTH	one	4
15	80652	SALON AIR CONDITIONING EQUIPMENT	one	2
16	81789	LOUNGE AIR CONDITIONER CONTROL CARD MCMIFB	one	3
17	81790	LEMIO1 LOUNGE AIR CONDITIONING CONTROL CARD	one	3
18	80975	AIR CONDITIONING COMPRESSOR OF THE HALL.	one	6
19	81577	AIR CONDITIONING CONDENSER IN THE HALL.	one	6
20	80653	FLIGHT DECK AIR CONDITIONING EQUIPMENT	one	1
21	81791	CABIN AIR CONDITIONING COMMAND AND CONTROL CARDS.	one	1
22	81792	REINFORCED FIBERGLASS FRONT MASK	Pcs	3
23	81793	FRONT MASK CAP (HOOD)	Pcs	3
24	81794	RIGHT SIDE SKIRT OF THE FRONT MASK	Pcs	2
25	81795	RIGHT SIDE SKIRT OF THE FRONT MASK	Pcs	3
26	81796	Right side skirt of the front mask	Pcs	3
27	81797	Right side skirt of the front mask	Pcs	3

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
28	81246	DRIVER'S SEAT.	one	2
29	80416	AUXILIARY SEAT.	one	1
30	82144	EMERGENCY LADDER.	one	3
31	81247	WINDSHIELD WIPER ELECTRIC MOTORS	one	5
32	81578	WINDSHIELD WIPER ROD WITH EJECTOR MOUNTED	one	9
33	81579	WINDSHIELD WIPER BLADE	one	0
34	81580	WINDSHIELD WIPER WATER RESERVOIR WITH ELECTRIC PUMP	one	2
35	82134	REARVIEW CAMERA LEFT SIDE OF CARS TRAILER	one	1
36	82135	REARVIEW CAMERA RIGHT SIDE OF TOW CARS	one	1
37	82132	REARVIEW CAMERA LEFT SIDE OF CARS ENGINE CABIN, RED COLOR	one	1
38	82133	REARVIEW CAMERA RIGHT SIDE CARS ENGINE CABIN, RED COLOR	one	1
39	79657	WINDOWS COMPLETE WITH POLYCARBONATE (FOR 1 MOTOR CAR AND 1 TRAILER CAR.)	one	16
40	81599	CABIN DOOR WINDOWS	one	3
41	81581	PASSENGER SEAT 2 SEATS	one	7
42	81582	PASSENGER SEAT 4 SEATS	one	4
43	81583	PREFERENTIAL SEAT 2 SEATS	one	8
44	81584	PASSENGER SEAT 1 SEAT	one	8
45	83483	TUBE SET, CAF REFERENCE: C.H4.55.011.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	3
46	83485	TUBE SET, CAF REFERENCE: C.H4.55.012.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	1
47	83486	TUBE SET, CAF REFERENCE: C.H4.55.013.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	8
48	83488	TUBE SET, CAF REFERENCE: C.H4.55.014.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	9
49	83489	TUBE SET, CAF REFERENCE: C.H4.55.019.00, USED IN THE HANDGRIPS OF SERIES 8500 TRAINS	one	13
50	83490	TUBE SET, CAF REFERENCE: C.H4.55.020.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	1
51	83491	TUBE, CAF REFERENCE: C.H4.55.021.01, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	46
52	83492	TUBE, CAF REFERENCE: C.H4.55.021.02, USED IN THE HANDGRIPS OF SERIES 8500 TRAINS	one	2
53	83493	TUBE, CAF REFERENCE: C.H4.55.021.03, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	5
54	83517	SHIM, CAF REFERENCE: C.H4.55.027.01, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	129
55	83518	SHIM, CAF REFERENCE: C.H4.55.027.02, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	159
56	83520	SHIM, CAF REFERENCE: C.H4.55.027.03, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	67
57	83522	SHIM, CAF REFERENCE: C.H4.55.027.04, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	134
58	83523	SHIM, CAF REFERENCE: C.H4.55.027.05, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	68
59	83494	HANDRAIL SUPPORT, CAF REFERENCE: C.H4.55.028.00, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	67

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
60	83495	HANDRAIL SUPPORT, CAF REFERENCE: C.H4.55.029.00, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	23
61	83496	BUSHING, CAF REFERENCE: C.H4.55.033.01, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	23
62	83524	SHIM, CAF REFERENCE: C.H4.55.035.01, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	336
63	83525	SHIM, CAF REFERENCE: C.H4.55.035.02, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	201
64	83615	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.043, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	6
65	83526	SHIM, CAF REFERENCE: C.H4.55.050.01, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	42
66	83527	SHIM, CAF REFERENCE: C.H4.55.050.02, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	21
67	83528	SUPPORT, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	111
68	83497	BUSHING, CAF REFERENCE: C.H4.55.053.01, USED IN THE HANDGRIPS OF SERIES 8500 TRAINS	one	99
69	83498	VERTICAL HANDRAIL SET, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	7
70	83499	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.212.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	30
71	83500	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.213.00, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	7
72	83501	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.214.00, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	5
73	83502	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.215.00, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	6
74	83503	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.216.00, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	1
75	83504	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.217.00, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	4
76	83505	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.218.00, USED IN THE HANDRAILS OF THE 8500 SERIES TRAINS	one	5
77	83506	TUBE SET, CAF REFERENCE: C.H4.55.220.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	1
78	83507	TUBE SET, CAF REFERENCE: C.H4.55.221.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	1
79	83508	CLAMP SET, CAF REFERENCE: C.H4.55.222.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	14
80	83509	CLAMP SET, CAF REFERENCE: C.H4.55.223.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	20
81	83510	FINISH, CAF REFERENCE: C.H4.55.055.01, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	4
82	83511	VERTICAL HANDRAIL, CAF REFERENCE: C.H4.55.226.00, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	6
83	83512	FINISHING BUSHING, USED IN THE HANDGRIPS OF SERIES 8500 TRAINS	one	60
84	83513	FINISH, CAF REFERENCE: C.H4.55.057.01, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	19
85	83514	FINISH, CAF REFERENCE: C.H4.55.056.01, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	149

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
86	83516	FINISH, CAF REFERENCE: C.H4.55.048.01, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	130
87	83529	CONTACT WASHER, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	155
88	83530	M8 SCREW PROFILE, USED IN THE HANDGRIPS OF 8500 SERIES TRAINS	one	46
89	83531	CLAMP FOR M8 SCREW, USED IN THE HANDGRIPS OF SERIES 8500 TRAINS	one	46
90	83532	M8 GROOVED SELF-LOCKING NUT, USED IN THE HANDGRIPS OF 8500 SERIES TRAINS	one	47
91	83533	M10 GROOVED SELF-LOCKING NUT, USED IN THE HANDGRIPS OF 8500 SERIES TRAINS	one	144
92	83617	SAFETY WASHER, DIAMETER 5 MM, USED IN THE HANDGRIPS OF THE 8500 SERIES TRAINS	one	69
93	83618	SAFETY WASHER, DIAMETER 8 MM, USED IN THE HANDGRIPS OF SERIES 8500 TRAINS	one	23
94	83547	EMERGENCY DOOR HANDLE, USED ON 8500 SERIES TRAINS	one	4
95	80654	MAIN COMPRESSOR MOTOR.	cj	1
96	81248	AUXILIARY COMPRESSOR MOTOR.	cj	1
97	82811	AIR HANDLING UNIT (COMPLETE).	cj	3
98	79684	LEVELING VALVE, POSITION L03	one	12
99	79685	LEVELING VALVE, POSITION L012	one	5
100	79656	660HZ MAILBOX	one	1
101	79655	370HZ MAILBOX	one	0
102	81249	MUSHROOM BUTTON BLACK COLOR	one	1
103	81982	HORN ISOLATION SWITCH (DN10)	one	2
104	81980	HORN ACTUATION SOLENOID VALVE	one	2
105	83057	PANTOGRAPH CONTROL PANEL	one	1
106	83902	FIRST LEVEL MULTIPLIER WITH KEYS	one	1
107	83913	3-WAY VALVE	one	1
108	83903	SECOND LEVEL MULTIPLIER WITH KEYS	one	1
109	83904	FINAL CHAVES MULTIPLIER	one	1
110	83914	PAT DISCONNECTOR	one	1
111	83915	MOVABLE DIRECT HIGH LOCK	one	30
112	83916	FIXED PART LOCK	one	30
113	79660	AUXILIARY STATIC INVERTER (COMPLETE)	one	1
114	83908	VPST 810.1 CARD - OVERVOLTAGE CONTROL	one	8
115	83909	VPPO CARD 581.1- LED HIGH VOLTAGE DETECTOR	one	16
116	83910	VPIN 871.2 CARD - IGBT OPTOISOLATOR	one	8
117	83911	VPZZ 610.1 CARD - SURGE LIMITER CONTROL	one	8
118	83917	CARDVPZZ 231.1 – VARISTORS	one	48
119	83918	VPST CARD 485.15 - IGBT DRIVER	one	8
120	83919	VPPS 322.2 CARD - PCB LOADER	one	8
121	83920	VPPS 108.1 CARD - MICROPROCESSOR CONTROL	one	8
122	83921	VPZZ 910.1 CARD - SOFT-START CONTROL	one	8
123	83922	VPZZ 740.1 CARD - MCC PCB	one	8
124	83923	VPZZ 940.1 VARISTOR CARD	one	8
125	83924	VPPS 108.5 CARD - ETHERNET PCB	one	8
126	83925	VPZS 311.1 ETHERNET VOLTAGE MODULE CARD	one	8
127	83926	VPPG CARD 996.22 – CONTROLLER	one	8

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
128	83927	VPPG 811.1 CARD TENSION CONTROLLER	one	8
129	83928	VPPO 611.1 CARD - VOLTAGE MEASUREMENT	one	8
130	83929	VPZZ 470.1 CARD - SUPPRESSOR DIODE	one	8
131	83930	AUXILIARY STATIC INVERTER POWER SUPPLIES (FOR 1 TRAIN OF 8 CARS).	one	48
132	81250	STATIC CONVERTER MODULE IGBT	one	72
133	81251	IGBT MODULE CHARGER	one	12
134	80976	COMPLETE EXTRA-FAST CIRCUIT BREAKER (FOR 1 TRAIN OF 8 CARS).	one	3
135	81585	BRUSH HOLDERS COMPLETE WITH BRUSHES	one	22
136	81252	BATTERY BANK, SUPPLIED IN A SET OF 6 UNITS	one	7
137	80977	COMPLETE BATTERY BOX WITH LID, STANDARD LOCK AND TROLLEY.	one	3
138	83059	CARD TYPE EB01B	one	6
139	83060	CARD TYPE MB03B	one	6
140	83061	CARD TYPE MB04B	one	6
141	83062	CARD TYPE RB06A	one	6
142	83063	CARD TYPE CB09A	one	6
143	81586	PB03A POWER SUPPLY FOR ELECTRONIC BRAKE	one	12
144	83602	ANTI-BLOCKING VALVE G01	one	28
145	83061	ELECTRONIC CARD OF THE ANTI-SKID/ANTI-SLIP SYSTEM.	one	6
146	85735	THROTTLE	one	12
147	85736	PRESSURE LIMITING VALVE	one	12
148	85737	PRESSURE REDUCING VALVE DMV7	one	4
149	85738	PRESSURE REDUCING VALVE DMV7	one	4
150	85739	PILOT VALVE	one	4
151	85740	PLUNGER VALVE	one	4
152	85741	MAGNETIC VALVE	one	20
153	85742	RELAY VALVE	one	16
154	85743	CHECK VALVE	one	16
155	85744	MAGNETIC VALVE	one	12
156	85745	MAGNETIC VALVE	one	8
157	85746	CHECK VALVE	one	28
158	85747	3/4 ISOLATION SWITCH WITH CONTACTS	one	16
159	85748	G1 NON-RETURN VALVE	one	4
160	85749	G1 ISOLATION SWITCH W/ CONTACTS	one	4
161	85750	LIMITING VALVE - B26	one	16
162	85751	G1/2 BRAKE ISOLATION SOLENOID VALVE B25/1	one	16
163	85752	LIMIT VALVE HOLDER - B26	one	16
164	85753	PRESSURE REDUCING VALVE DMV15-T	one	8
165	85754	PILOT VALVE	one	8
166	85755	RELAY VALVE	one	8
167	85756	COIL FOR MAGNETIC VALVE	one	8
168	85757	ELECTRIC PILOTAGE - B52	one	4
169	85758	PILOTING SOLENOID VALVE HOLDER - B52	one	4
170	85759	G1 ISOLATION TAP W/ CONTACTS - B50	one	4
171	85960	ISOLATION SWITCH TDP-B10.1	one	16
172	85961	ISOLATION SWITCH TDP-B10.2	one	16
173	79671	CALIPER, NO PARKING	one	28
174	79672	CALIPER, WITH PARKING	one	26

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
175	80979	SPEED SENSORS FOR ELECTRONIC BRAKE (FOR 1 TRAIN OF 8 CARS).	one	6
176	80980	MULTISENSOR OF DERAILMENT, SPEED, ACCELERATION AND TEMPERATURE	one	26
177	81962	POWER AMPLIFIER PUBLIC ADDRESS SYSTEM	one	8
178	81954	BOOTH SPEAKER	one	1
179	81957	CABIN AMBIENT SOUND MICROPHONE	one	1
180	81956	HALL SPEAKER	one	56
181	81802	CARD POWER SUPPLY UNIT (PSU) AND MOBILE PIS UNIT (PMU) OF THE PUBLIC ADDRESS SYSTEM	one	2
182	81803	PIS MOBILE UNIT (PMU) PUBLIC ADDRESS CARD	one	1
183	82145	MULTIMEDIA SERVER UNIT (MSU) CARD FOR THE PUBLIC ADDRESS SYSTEM	one	1
184	81587	16 PORT SWITCH	one	8
185	81588	TFT PASSENGER INFORMATION MONITOR	one	76
186	81589	TFT PASSENGER INFORMATION MONITOR WITH AUDIO	one	6
187	81594	CENTRAL PIS+ALL	one	1
188	79703	DESTINATION INDICATOR (COMPLETE)	one	1
189	79740	MOTOROLA RADIO, XTL1500 MODEL, WITH HANDSET	one	2
190	79741	SIV INTERFACE ENCLOSURE, WITH POWER SUPPLY	one	1
191	79711	VISUAL MESSAGE MODULE WITH LED	one	15
192	79678	LOUNGE LAMP, LENGTH 1664 MM	one	65
193	79679	LOUNGE LAMP, LENGTH 1264 MM	one	9
194	79680	SPOTS LED	one	17
195	79681	CABIN LUMINAIRE	one	1
196	79682	READING SPOT	one	3
197	79683	LED CONTROL TABLE LIGHTING	one	1
198	80415	TRAIN HEADLIGHT.	one	14
199	81254	RED HEADLIGHT.	one	6
200	81256	WHITE LIGHT.	one	6
201	80420	EMERGENCY COMMUNICATOR LOUNGE/CABIN (FOR 1 TRAIN OF 8 CARS).	one	16
202	80655	DOOR ACTIVATION MECHANISMS.	one	28
203	80981	ELECTRIC DOOR DRIVER MOTORS.	one	28
204	80982	ELECTRONIC DOOR CONTROL UNIT (EDCU) CARD	one	60
205	80657	LEFT DOOR LEAF COMPLETE, WITH POLYCARBONATE VISOR, FEMALE RUBBER SEAL AND LOCK USED IN SERIES 8500 TRAINS	one	14
206	80656	RIGHT DOOR LEAF COMPLETE, WITH POLYCARBONATE SIGHT GLASS AND MALE SEALING RUBBER USED IN SERIES 8500 TRAINS	one	14
207	80421	COMPLETE CAB DOOR, WITH WINDOW, HANDLE AND HANDLE, RIGHT SIDE	one	3
208	80423	COMPLETE CAB DOOR, WITH WINDOW, HANDLE AND HANDLE, LEFT SIDE		3
209	81865	LOCK SET WITH INTERCHANGEABLE HANDLE BETWEEN LEFT AND RIGHT CAB DOORS	one	6
210	81599	CABIN DOOR WINDOW	one	3
211	80983	DOOR (CABIN) ACCESS TO THE SALOON (COMPLETE).	one	3
212	80414	HALL ACCESS DOOR LOCK	one	3
213	80658	SET OF BRAKE RESISTORS (FOR 1 TRAIN OF 8 CARS).	one	13
214	81276	STATIC TRACTION CONTROL INVERTER (COMPLETE).	one	1
215	81866	TRACTION INVERTER MAIN PROCESSING UNIT ELECTRONIC CARD (MCB_CPUT)	one	4
216	81867	PROCESSING UNIT FOR TRACTION INVERTER MONITORING (MCB_MON)	one	4

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
217	81868	ELECTRONIC TRACTION INVERTER MVB COMMUNICATION MODULE (MCB_MVB) CARD	one	4
218	81869	TRACTION INVERTER DIGITAL INPUTS MODULE ELECTRONIC CARD (MCB_DI72V)	one	8
219	81870	ELECTRONIC TRACTION INVERTER DIGITAL OUTPUTS MODULE CARD (MCB_DO24/72V)	one	8
220	81871	TRACTION INVERTER ENCODER POWER AND READING MODULE ELECTRONIC CARD (MCB_ENCD)	one	4
221	81872	ELECTRONIC CARD OF THE ANALOG INPUTS READING MODULE OF THE TRACTION INVERTER (MCB_AI_CONFIG2)	one	8
222	81873	INPUT MODULE FOR TRACTION INVERTER TEMPERATURE READING (MCB_TEM)	one	4
223	81874	ELECTRONIC PROCESSING UNIT CARD FOR TRACTION INVERTER SIGNAL HANDLING (MCB_DSP_8FO)	one	8
224	82822	POWER SUPPLY FOR STATIC TRACTION CONTROL INVERTER.	one	4
225	82823	TRACTION INVERTER POWER IGBT MODULE	one	56
226	80528	TRACTION MOTOR	one	12
227	80424	TRACTION AND BRAKE MANIPULATOR	one	1
228	81953	SPEED SENSORS FOR TRACTION MOTORS.	one	12
229	82416	8-PORT SWITCH FOR VIDEO SURVEILLANCE SYSTEM	one	6
230	82147	REARVIEW MONITOR	one	3
231	82148	VIDEO SURVEILLANCE SYSTEM MONITOR	one	1
232	82152	IP/INFRARED VIDEO CAMERA USED IN VIDEO SURVEILLANCE SYSTEM	one	32
233	82153	FRONT VIDEO CAMERA	one	1
234	82154	PANTOGRAPH VIDEO CAMERA	one	2
235	82155	HITCH VIDEO CAMERA	one	1
236	81257	SOLID STATE DATA STORAGE DRIVE (CCTV SUPPORT SSD)	one	0
237	81258	PROTECTED DATA RECORDER (BLACK BOX)	one	0
238	82365	HMI CABIN TERMINAL (COSMOS)	one	1
239	82366	'IO2' INPUTS AND OUTPUTS MODULE USED IN THE COMMAND AND CONTROL SYSTEM (COSMOS)	one	1
240	82367	'IO3' INPUTS AND OUTPUTS MODULE USED IN THE COMMAND AND CONTROL SYSTEM (COSMOS)	one	2
241	82368	'IO1' INPUTS AND OUTPUTS MODULE USED IN THE COMMAND AND CONTROL SYSTEM (COSMOS)	one	2
242	82372	MVB RP REPEATER MODULE, USED IN THE COMMAND AND CONTROL SYSTEM (COSMOS)	one	2
243	82373	MVB RPGW REPEATER MODULE, USED IN THE COMMAND AND CONTROL SYSTEM (COSMOS)	one	1
244	82374	AUDIBLE ALARM USED IN THE COMMAND AND CONTROL SYSTEM (COSMOS)	one	1
245	82375	COMMAND AND CONTROL SYSTEM INTERFACE EXTENDER (COSMOS)	one	1
246	83603	DIGITAL OUTPUT BOARD TSDIO21	one	28
247	83604	TEDIO21 DIGITAL INPUT BOARD	one	28
248	83605	ANALOG INFEED TEANO10	one	4
249	83606	PLATE PL 12 BLIND	one	4
250	83607	MODULE TICO002	one	16
251	83608	MODULE TFALO12	one	16
252	83609	PL 30 BLIND PLATE	one	1
253	83610	MODULO CCU 72V-110V	one	1
254	83611	PLATE PL 16 BLIND	one	6

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
255	83612	PLATE PL 8 BLIND	one	3
256	81804	RAIL ROUTER (COMMUNICATIONS GATEWAY)	one	1
257	81805	WIFI ANTENNA, 3G AND GPS COMMUNICATIONS	one	1
258	81806	RAIL ROUTER CONVERTER, INPUT VOLTAGE 72 VDC AND OUTPUT VOLTAGE 24 VDC	one	1
259	81259	CBTC VAULT	one	3
260	81260	CABO DOPPLER DO CBTC	one	3
261	81261	CBTC APR TYPE 1 READER CABLE	one	3
262	81262	CBTC TYPE 2 APR READER CABLE	one	3
263	81271	AUDIBLE SPEEDING INDICATOR, CBTC	one	3
264	81263	DISPLAY DMI DO CBTC	one	3
265	81264	CPU DMI DO CBTC	one	6
266	81265	CBTC IFDMI INTERFACE DEVICE	one	6
267	81266	CBTC APR READER	one	3
268	81267	SENSOR DOPPLER DO CBTC	one	3
269	81268	CBTC RADIO ANTENNA	one	6
270	81269	CBTC RADIO	one	6
271	81270	CBTC TACHOGENERATOR	one	6
272	81808	ATC CASSETTE G. ATP	one	3
273	81809	ATC CONSOLE MCL MODULE	one	2
274	81810	COMMUNICATION EXTENDER MODULE (ATC MEC)	one	3
275	81811	ATC ANTENNA	one	5
276	81812	ATC ACCELEROMETER MODULE (MACC)	one	3
277	81813	ATC TREMINATIONS AND CONNECTIONS (MTC) MODULE	one	3
278	81815	ATC/ATO SPEED SENSOR	one	5
279	81816	DRAWER G.ATO	one	4
280	81817	TAG READER, ACT	one	4
281	81818	TAG ANTENNA, ATO	one	4
282	81875	RADIO ANTENA, ATO	one	4
283	81819	RADIO MODULE, ACT	one	4
284	81820	ON-BOARD RADIO SWITCH	one	4
285	81821	CENTRAL CONTROL SYSTEM E16NS FIRE DETECTION AND EXTINGUISHING SYSTEM	one	3
286	81822	OPTICAL DETECTOR FIRE DETECTION AND EXTINGUISHING SYSTEM	one	78
287	81823	BASE OF OPTICAL DETECTOR OF FIRE DETECTION AND EXTINGUISHING SYSTEM	one	78
288	81824	SET WATER BOTTLE FIRE DETECTION AND EXTINGUISHING SYSTEM	one	9
289	81825	NITROGEN BOTTLE SET FIRE DETECTION AND EXTINGUISHING SYSTEM	one	3
290	81826	FIRE DETECTION AND EXTINGUISHING SYSTEM HALL NEBULIZER NOZZLE	one	72
291	81827	NOZZLE FOGGER CABIN FIRE DETECTION AND EXTINGUISHING SYSTEM	one	3
292	81829	ELECTROSOLENOID VALVE STEERING FIRE DETECTION AND EXTINGUISHING SYSTEM	one	24
293	81830	FIRE DETECTION AND EXTINGUISHING SYSTEM RELIEF VALVE	one	3
294	81831	NITROGEN BOTTLE VALVE ASSEMBLY FIRE DETECTION AND EXTINGUISHING SYSTEM	one	3
295	81832	ANTI-RETURN VALVE FIRE DETECTION AND EXTINGUISHING SYSTEM	one	12
296	81833	WATER BOTTLE VALVE ASSEMBLY FIRE DETECTION AND EXTINGUISHING SYSTEM	one	6
297	81834	E8CN MODULE OF THE FIRE DETECTION AND EXTINGUISHING SYSTEM	one	9

ITEM	CODIGO INVESTIG	DESCRIPTION	PCS.	BALANCE
298	81968	DEAD MAN RECOGNITION BUTTON	one	2
299	81977	DEAD MAN'S PEDAL	one	1
300	81978	DEAD MAN'S DOORBELL	one	1
301	81876	FULL EVENT RECORDER	one	1
302	81877	BIOMETRIC EVENT RECORDER READER	one	1
303	80493	BOGIE FRAME FOR CAR ENGINE AND TRAILER	one	12
304	82218	PT/RC ADAPTER OF THE BEARING BOX WITH SCREWS CAB SEX M16X50 AND WASHERS M16	one	16
305	82219	PT/RC FIXING PLATE OF THE BEARING BOX WITH BOLTS CAB SEX M20X70 AND WASHERS M20	one	16
306	82220	CAST STEEL BEARING HOUSING	one	32
307	82223	REAR COVER OF THE BEARING BOX, WITH CAB SEX M16X50 SCREWS AND M16 WASHERS	one	16
308	82226	PHONIC WHEEL USED IN THE SENSORS OF THE BEARING BOX WITH SCREWS CAB SEX M20X70 AND M20 WASHERS	one	16
309	82229	COVER OF THE BEARING BOX DESCARRILAMENTO+WSP FOR SENSOR LEFT SIDE WITH SCREWS CAB SEX M16X50, M16 WASHERS AND M22 PLUG	one	4
310	82230	COVER OF THE BEARING BOX DECRIRILAMENTO+WSP FOR SENSOR RIGHT SIDE WITH SCREWS CAB SEX M16X50, M16 WASHERS AND M22 PLUG	one	5
311	82232	CTBC BEARING BOX COVER DECRIRANGING+WSP+TACHOMETER WITH SCREWS CAB SEX M16X50 M16 WASHERS AND M22 CAP	one	2
312	82233	BEARING BOX COVER DECRIRILAMENTO+WSP+EVR SENSOR WITH SCREWS CAB SEX M16X50	one	3
313	82237	CBTC TACHOMETER DRAG PIN WITH M12 WASHER	one	2
314	81280	CBTC TACHOGENERATOR, SÉ RIE 8500 TRAINS	one	10
315	81272	AXLES FOR TRUCK TRAILER.	one	8
316	82234	BEARING BOX COVER DECRIELLATION+WSP+ATC SENSOR WITH SCREWS CAB SEX M16X50	one	2
317	82158	13 LITRE OIL RESERVOIR WITH PUMP AND SOLENOID VALVE	one	3
318	73247	Y-SHAPED GREASE FILTER, NOMINAL DIAMETER 15 MM, BRONZE BODY AND STAINLESS STEEL FILTER	one	3
319	73246	FLOW DIVIDER	one	3
320	82159	CRIMP LUBRICATION SYSTEM SPRAY NOZZLE	one	6
321	82160	SYNTHETIC RUBBER HOSE WITH 1 STEEL WIRE REINFORCEMENT, 1/4 INCH DIAMETER	one	6
322	79712	TRICK SECONDARY SUSPENSION AIR SPRINGS (FOR 1 TRAIN OF 8 CARS).	one	16
323	82140	EXTERNAL SPRING OF THE PRIMARY SUSPENSION, USED IN MOTOR CARS	one	24
324	82141	INTERNAL SPRING OF THE PRIMARY SUSPENSION, USED IN MOTOR CARS	one	24
325	82142	EXTERNAL SPRING OF THE PRIMARY SUSPENSION, USED IN TOWING CARS	one	24
326	82143	INTERNAL SPRING OF THE PRIMARY SUSPENSION, USED IN CAR TRAILERS	one	24
327	83601	VERTICAL SHOCK ABSORBER PRIMARY SUSPENSION (FOR 1 TRAIN OF 8 CARS).	one	64
328	85372	VERTICAL SHOCK ABSORBER SECONDARY SUSPENSION (FOR 1 TRAIN OF 8 CARS).	one	32
329	86462	SECONDARY SUSPENSION TRANSVERSE SHOCK ABSORBER (FOR 1 TRAIN OF 8 CARS).	one	16

Source: Exhibit A2 of the notice of AGREEMENT No. 001822300100.

Table 102 - Special tools for the 8500 Series trains

S8500 - LIST OF SPECIAL TOOLS AND SOFTWARE			
COMPONENT	**DESCRIPTION**	**CODE / MANUFACTURER**	**MANUAL / PAGE**
TRACTION MOTOR	MEGGER (500-1000 V)	HIOKI IR4057-50	EMU.04.03 - E-3/91
	TACHOMETER (DIGITAL DISPLAY)	HIOKI FT3405	
	TACHOMETER (PHOTOELECTRIC ROTATION DETECTOR)		
	DIGITAL OSCILLOSCOPE	KEYSIGHT DSOX1202A	
AUTOMATIC COUPLING BETWEEN SEMI-UNIT	MAIN CONTROLLER TOOLKIT	1044579	EMU.02.04 E4/77–
	MAIN CONTROL MEASUREMENT KIT	1044582	
	CONTROL TOOL	1013985	
	AIR CONNECTION TOOL	157383	
	BLOCKING TOOL	1017179	
	CHAVE DYNAMOMETRIC	1007269	
	AXIS	1007270	
	LONG SOCKET	1007272	
	LONG SOCKET	1008543	
	ASSEMBLY TOOL	1044989	
	ASSEMBLY TOOL	1032916	
	DRIFTER	1032915	
BRAKE CALIPER WITH SPRING ACTUATOR AND BRAKE CALIPER WITHOUT SPRING ACTUATOR	INSTALLER FOR EIXO RETAINERS	C64900/62 - KNORR	EMU.05.02 – E4/118EMU.05.04 – E3/96
	PRESSURE CLAMPING FOR INNER RINGS	C64900/20 - KNORR	
	BEARING INSTALLER	C64900/64 - KNORR	
	NEEDLE BEARING INSTALLER	C64900/17 – KNORR	
	TORSION SPRING ASSEMBLY TOOL	C64900/23 – KNORR	
	GLOVE FREEWHEEL INSTALLER	C64900/24 – KNORR	
	INSTALLER FOR EIXO RETAINERS	C64900/60 – KNORR	
	NEEDLE GLOVE INSTALLER	C64900/32 – KNORR	
	MOUNTING ATTACHMENT FOR DRAG LEVER	C64900/18 - KNORR	
	LID MOUNT ATTACHMENT	C64900/33 – KNORR	
	MOUNTING ATTACHMENT FOR RING	C64900/34 – KNORR	
	MOUNTING FIXTURE FOR SHAFT RETAINER	C64900/36 – KNORR	
	ADJUSTMENT MODEL FOR FORK LEVER AND LEVER	C64900/38 – KNORR	
BRAKE CALIPER WITH SPRING ACTUATOR AND BRAKE CALIPER WITHOUT SPRING ACTUATOR	SPECIAL HOOK FOR SEALING RING	4B64617 – KNORR	EMU.05.02 – E4/118EMU.05.04 – E3/96
	BUSHING EXTRACTOR	C64900/40 – KNORR	
	ASSEMBLY TOOL FOR SEALING DISCS	II52647/1 – KNORR	

S8500 - LIST OF SPECIAL TOOLS AND SOFTWARE			
COMPONENT	**DESCRIPTION**	**CODE / MANUFACTURER**	**MANUAL / PAGE**
	NEEDLE BEARING LUBRICATOR	II55028 – KNORR	
	NEEDLE SLEEVE LUBRICATOR	II55028/4 – KNORR	
	LID MOUNTING TOOL	C64900/49 – KNORR	
	MOUNTING TOOL FOR RELEASE GEAR	C64900/50 – KNORR	
	MOUNTING FIXTURE FOR O-RING	C64900/66 – KNORR	
	INSTALLER FOR EIXO RETENTOR	C64900/36 - KNORR	
AIR CONDITIONING COMPARTMENT AND CABIN AIR CONDITIONING	LEAK DETECTOR	H26-834 - FIELDPIECE	EMU.10.01 – E7/143EMU.10.02 – E7/119
	VACUUM PUMP	VP2200D – TIPI	
	HOSES AND VACUUM PUMP FITTINGS	DG360H/800-4000PSI/1/4”X5/16” - DUGOLD	
	MANIFOLD WITH HOSES AND FITTINGS	VLCT-536-R410A - VULKAN LOKRING	
	VACUUM GAUGE	H27-581 - FIELDPIECE	Tools identified in AGREEMENTual air conditioning training
	NETWORK CABLE WITH M12 MALE X RJ45 CONNECTORS	3007506744 - IFM ELETRONIC	
DERAILMENT DETECTION SYSTEM	DERAILMENT SENSOR TEST SHAKER FS04	KNORR	Derailment Sensor Test Procedure
VÁLVULA RÉLE KR-6AA (B01. D)	EXTRATOR DO DIAFRAGMA	4A 54802/KNORR	EMU.08.10 - E-2/36
BALL TAPS (B03.02, B03.09 AND B03.15)	MOUNTING CHUCK	SK-T-DN19E-SMC162984_DN19/KNORR	EMU.08.15 E-2/41-
	MOUNTING CHUCK	SK-T-DN7E-SMC162984_DN7/KNORR	
	SEALER	SK-T-DN19E-SMC162985_DN19/KNORR	
	SEALER	SK-T-DN7E-SMC162985_DN7/KNORR	
BALL TAP (B18)	MOUNTING CHUCK	SK-T-DN25E-SMC162984_DN25/KNORR	EMU.08.27 E-2/36-
	SEALER	SK-T-DN25E-SMC162985_DN25/KNORR	
MULTISENSOR FS04A (G02)	ROTARY GEAR SIMULATOR	STN24518/GI6/KNORR	EMU.08.42 - E-2/25
CIRCUIT BREAKER	FOLGA CAUGES	SG104782R00001 /SÉCHERON	EMU.04.02
		SG104782R00002 /SÉCHERON	
		SG104782R00003 / SÉCHERON	
		SG104782R00005 - SÉCHERON	
		SG104782R00006 / SÉCHERON	
	SPACER	SG101777P00001 / SÉCHERON	
	STAR KEY	SG101735R00002 /SÉCHERON	
	WRENCH	SG101736P00001 / SÉCHERON	
	TOOL TO PLUG	SA001455P00001 / SÉCHERON	
ATC	GSV: TRACK SIGNAL GENERATOR;	SP04.70.155.01/ALSTOM	-

S8500 - LIST OF SPECIAL TOOLS AND SOFTWARE			
COMPONENT	**DESCRIPTION**	**CODE / MANUFACTURER**	**MANUAL / PAGE**
	ACCELEROMETER CALIBRATION MODULE.	SP04.70.147.01/ALSTOM	
SOFTWARE	TEST SIMULATOR SOFTWARE FOR LAPTOP (BRAKE)	KNORR	-
	SOFTWARE FAROL	-	-
	SOFTWARE HVAC CABINE	CURIOSITY	-
	SOFTWARE HVAC SALÃO	CURIOSITY	-
	HARD DRIVE READING SOFTWARE	REPUTATION	-
	CAMERA DIMMING SOFTWARE	REPUTATION	-
	SIV MODIFICATION SOFTWARE	REPUTATION	-
	COSMOS SOFTWARE/ DATA ANALYSIS SOFTWARE	CAF	-
	SOFTWARE SIV	REPUTATION	-
	SOFTWARE CVS	MEDCOM	-
	EVENT RECORDER SOFTWARE	TELOC 1500 HASLER	-
	RADIO SOFTWARE	FASTWAVE	-
	TRACTION SOFTWARE	CAF P&A	-
	PORTAL SOFTWARE	FAIVELEY	-
	FIRE DETECTION AND EXTINGUISHING SOFTWARE	EEE	-
	SOFTWARE ATC	ALSTOM	-
	SOFTWARE CBTC	SIEMENS	-

Source: Exhibit A3 of the notice of AGREEMENT No. 001822300100.

8.2.1.5 9000 Series

Item 4.1.4-h1 of AGREEMENT No. LC 00424-01 signed between CAF Brasil Indústria e Comércio S/A and CPTM indicates that "*CPTM will make available to the contractor a batch of spare parts, devices and tools for general and special use necessary for the maintenance of the trains ... These materials are listed and quantified in Exhibit A3 - Train Spare Parts and Exhibit A4 - Special Train Tools.*"

In sub-item 4.1.4-h3 of these documents, it is noted that "*At the end of the agreement, all special and spare tools must be returned to CPTM in the same quantities and under normal conditions for use, at no additional cost to CPTM".*

The following tables show the list of spare parts and special tools for the 9000 series trains.

Table 103 – Spare parts of the 9000 Series trains

ITEM	DESCRIPTION	PCS.	BALANCE
1	SCHUNK COMPLETE PANTOGRAPH, WBL 85-24	Cj	4
2	PANTOGRAPH ISOLATOR SCHUNK, 6 KV	One	12
3	BRAKING RESISTOR	One	8

ITEM	DESCRIPTION	PCS.	BALANCE
4	ONYX TRACTION INVERTER	One	1
5	SUPERVISOR MODULE, TYPE AGATE 3	One	2
6	POWER MODULE (IGBT) ONIX 233XHP	One	4
7	POWER MODULE (IGBT) ONIX 233XHP-2R	One	4
8	CVS - AUXILIARY STATIC CONVERTER, 160 KVA	One	2
9	SUPERVISOR AGATE AUX 3	One	8
10	VOLTAGE TRANSDUCER CARD	One	8
11	R-C CARD	One	8
12	EMC CARD	One	8
13	CONVERSOR 110V-24V	One	8
14	INVERSOR (IGBT) – CVS	One	8
15	CHARGER (IGBT) – CVS	One	8
16	RECTIFIER (IGBT) – CVS	One	8
17	BINARY CARD (I/O) - EB01B	One	8
18	MVB CARD - CB09A	one	8
19	CPU CARD - MB04B	one	8
20	PSU CARD - PB03A	one	8
21	POWER MODULE CARD	one	8
22	ANTI-SLIP VALVE GV21-ESRA	one	16
23	CONNECTOR FOR ANTI-SLIP VALVE	one	16
24	LTZ 15.1 DRYER	one	2
25	EXTRA FAST CIRCUIT BREAKER ARC 3020, 3000 VDC - 2000ª	one	2
26	MOTOR-COMPRESSOR VV120 1100 L/MIN - 8,6 KW	one	4
27	FILTER (G1/2")	one	4
28	EXHAUST TAP (G1/2")	one	2
29	CHECK VALVE RV-10 (G1/2")	one	4
30	BRAKE RESERVOIR 100 L (G1")	one	4
31	STOPPER (3/4"NPT)	one	4
32	ELECTRO-PNEUMATIC BRAKE UNIT EP-BGE-II-B1	one	2
33	MCS 11 PRESSURE SWITCH (G1/4") - 0.7/0.3 BAR	one	4
34	T2 TEST CONNECTION	one	16
35	MCS 11 PRESSURE SWITCH (G1/4") - 7.5/7.0 BAR	one	4
36	MCS 11 PRESSURE SWITCH (G1/4") - 6.0/4.8 BAR	one	4
37	MCS 11 PRESSURE SWITCH (G1/4") - 2.0/1.5 BAR	one	4
38	MANGUEIRA P-6078	one	8
39	HOSE P-6077	one	8
40	HOSE 2P-2477	one	8
41	HOSE P-6063	one	8
42	EXHAUST TAP (G1/4") RIGHT	one	6
43	VALVULA MAGNÉTICA WMV-1ZG	one	4
44	TWO-WAY VALVE	one	8
45	FAUCET WITH EXHAUST AND MICRO SWITCH (G1/2") RIGHT	one	4
46	FAUCET WITH EXHAUST AND MICRO SWITCH (G1/2") LEFT	one	4
47	RESTRICTION 2 MM (R1/4")	one	4
48	EXHAUST TAP (G1") RIGHT	one	4
49	EXHAUST TAP (G1") LEFT	one	4
50	DOUBLE PRESSURE GAUGE 10 BAR 72 VDC	one	4
51	WMV-1ZG MAGNETIC VALVE (MANUAL)	one	4

ITEM	DESCRIPTION	PCS.	BALANCE
52	MAGNETIC VALVE WMV-20/2ZE	one	4
53	CHECK VALVE	one	4
54	EXHAUST TAP (G1/2")	one	2
55	TRAILER UNIT PER LOCOMOTIVE	one	4
56	PRESSURE REDUCING VALVE	one	4
57	SK-DN20 TAP WITHOUT RIGHT EXHAUST	one	4
58	SK-DN20 TAP WITHOUT LEFT EXHAUST	one	4
59	EXHAUST TAP (G1/2")	one	4
60	ELECTRO-PNEUMATIC BRAKE UNIT EP-BGE-II-B1	one	2
61	EXHAUST TAP (G1/4") LEFT	one	2
62	CALIPER WITH PARKING BRAKE CAR TRAILER	one	16
63	CALIPER WITH PARKING BRAKE CAR ENGINE	one	10
64	PAIR OF BRAKE DISC WITH FASTENERS	one	32
65	BRAKE SHOE	one	0
66	TRACTION REDUCER WITH SHAFT	one	5
67	TRICK SETUP	One	16
68	TAPERED ROLLER BEARING	One	16
69	BEARING BOX	One	16
70	TRAILER AXLE	One	4
71	SECONDARY SUSPENSION AIR BAG	One	32
72	DOOR MECHANISM	One	32
73	DOOR CONTROL CARD	One	64
74	PROGRAMMABLE LOGIC CONTROLLER - CPU224XP	one	4
75	PROGRAMMABLE LOGIC CONTROLLER - EM223	one	4
76	PROGRAMMABLE LOGIC CONTROLLER - EM221	one	4
77	PROGRAMMABLE LOGIC CONTROLLER - EM231	one	8
78	FPC24 - CAB AIR CONDITIONING CONTROLLER	one	1
79	AIR CONDITIONING COMPRESSOR HALL	one	32
80	HALL CONDENSER FAN	one	16
81	FULL CABIN AIR CONDITIONING	cj	2
82	EVAPORATOR FAN, RIGHT SIDE	one	4
83	EVAPORATOR FAN, LEFT SIDE	one	4
84	T1 CONTROL CENTER	one	1
85	T2 CONTROL CENTER	one	2
86	T3 CONTROL CENTER	one	1
87	MÓDULO SWITCH ETHERNET	one	4
88	WINDSHIELD	one	12
89	FRONT MASK, GRP	one	4
90	WINDSHIELD WIPER ELECTRIC MOTOR	one	4
91	THREE-PHASE TRACTION MOTOR 4 ECA 2142 B - 275 KW	one	16
92	2-CHANNEL TRACTION MOTOR SPEED SENSOR	one	4
93	1 CHANNEL TRACTION MOTOR SPEED SENSOR	one	12
94	TILTING WINDOW COMPLETE WITH POLYCARBONATE	cj	18
95	FIXED WINDOW COMPLETE WITH POLYCARBONATE	cj	6
96	LIGHTNING ROD	one	4
97	FULL RIGHT DOOR LEAF	cj	8
98	FULL LEFT DOOR LEAF	cj	8
99	RAILWAY WHEEL	one	32

ITEM	DESCRIPTION	PCS.	BALANCE
100	PASSENGER SEAT 4 SEATS	one	3
101	PASSENGER SEAT 2 LEFT PREFERRED SEATS	one	3
102	PASSENGER SEAT 1 LEFT SEAT	one	3
103	PASSENGER SEAT 2 SEATS	one	3
104	PASSENGER SEAT 2 RIGHT PREFERRED SEATS	one	3
105	PASSENGER SEAT 1 RIGHT SEAT	one	4
106	SCHARFENBERG TYPE 10 AUTOMATIC ENGATE	one	4
107	SEMI-PERMANENT HYDRAULIC GAS COUPLING WITH CLAMPS AND BOLTS	one	8
108	ENGATE SEMI-PERMANENT RIGID BAR	one	8
109	HALL VIDEO MONITOR (VIDEO SCREEN)	one	32
110	GANGWAY PASSAGE	cj	5
111	HALL TV CLOSED CIRCUIT CAMERA	one	12
112	CLOSED-CIRCUIT TV CAMERA WITH INFRARED	one	6
113	DESTINATION INDICATOR WITH LED	one	2
114	LED VISUAL MESSAGE MODULE	one	16
115	MPU - MAIN PROCESSING UNIT	one	1
116	MPU SUPPORT	one	1
117	DDU - MONITOR DO TCMS CMX EVOL MVB	one	1
118	RIOM T212 - REMOTE INPUT/OUTPUT MODULE 64-32	one	3
119	RIOM T215 - REMOTE INPUTS AND OUTPUTS MODULE 64-32	one	2
120	MVB REPEATER	one	1
121	DATAPLUG - DATA PLUG	one	7
122	GROUNDING ASSEMBLY	one	32
123	SPEED AND DERAILMENT SENSOR	one	16
124	DERAILMENT CARD - MB03B	one	4
125	LUBRICANT RESERVOIR 6L	one	4
126	BICO SPRAYER	one	8
127	LUBRICANT DISTRIBUTOR	one	4
128	CRIMPING LUBRICATOR TERMINAL STRIP	one	4
129	TIMER RELAY	one	4
130	LED LUMINAIRE 1250 MM	un	24
131	LED LUMINAIRE 650MM	un	4
132	CONVERSOR 72VDC/24VDC 65 W	un	12

Source: Exhibit A2 of the notice of AGREEMENT No. 841117301100.

Table 104 – Special tools of the 9000 Series trains

COMPONENT	*DESCRIPTION*
TRACTION MOTOR	ASSEMBLY AND DISASSEMBLY TOOL
	ROTOR LOCK TOOL ON THE OPPOSITE SIDE OF THE DRIVE
	DRIVE SIDE ROTOR LOCK TOOL
	DEFLECTOR CAP EXTRACTOR TOOL OPPOSITE SIDE OF THE 165 DRIVE
	TOOL FOR MOUNTING AND DISMOUNTING SKF NUTS
	DRIVE SIDE BAFFLE COVER EXTRACTOR TOOL 145
	PULLER TOOL FOR THE OPPOSITE SIDE BEARING HOUSING OF THE DRIVE 163 AND THE BALL BEARING 162
	DRIVE SIDE BEARING HOUSING ASSEMBLY PULLER TOOL 143
	PULLER TOOLS FOR BALL BEARING 142 AND OUTER RACEWAY FOR BEARING 162 (ROLLER BEARING)

COMPONENT	*DESCRIPTION*
	ROLLER BEARING OUTER RACEWAY TOOL
	DRIVE SIDE BAFFLE PULLER TOOL 122
	ROLLER BEARING INNER RING PULLER TOOL 162 ON THE OPPOSITE SIDE OF THE DRIVE
	DEFLECTOR EXTRACTOR TOOL ON THE OPPOSITE SIDE OF THE DRIVE 123
	GUIDE ADAPTER ON THE OPPOSITE SIDE OF THE DRIVE
	TOOL FOR DISMOUNTING AND MOUNTING BEARING HOUSINGS 143 AND 163
	GUIDE RODS FOR DISASSEMBLY AND ASSEMBLY OF THE MOTOR
	CAP PARTS ASSEMBLY ADJUSTMENT TOOLS
	INDEXING TOOL OF THE BAFFLE COVER ASSEMBLY 165 ON THE OPPOSITE SIDE OF THE DRIVE
	GEAR MISALIGNMENT INSPECTION TOOL
	BALL BEARING RADIAL CLEARANCE INSPECTION TOOL
	ROTOR REMOVAL SAFETY TOOL
REDUCER	ENCOST ANEL
	INPUT SHAFT REMOVAL TOOL
	OUTER RING BEARING PRESS
	COUNTERSHAFT BEARING REMOVAL TOOLS
	OUTPUT SHAFT BEARING REMOVAL TOOLS
	EXTENDED EYE BOLT (M12)
	EXTRACTION SCREWS
	EXTRACTION PIN INSTRUMENT
	SHAFT ADAPTER PLATE
	TUBE MOUNTING
	GEAR PRESS RING
	OUTER RING BEARING PRESS
	INNER RING BEARING PRESS
	MAIN TAMPA
	ADJUSTMENT CAP FOR THE IDLER SHAFT
	INNER STATIC RING TOOL
	INTERMEDIATE SHAFT LIFTING APPARATUS
	ANEL CAUGE
LINE CONTACTOR	MAINTENANCE TOOL
WMV-1ZG MAGNETIC VALVE / LTZ DRYER	SPECIAL WRENCH FOR RINGS
SAFETY VALVE R3/4"	SPECIAL WRENCH FOR RINGS
LEVELING VALVE	SPECIAL WRENCH FOR RINGS
AUXILIARY STATIC CONVERTER	SPECIAL TOOL
SCHARFENBERG AUTOMATIC ENGATE	MOUNTING CHUCK FOR GLUING THE BUSHINGS TO THE COUPLING EYE Ø38 40-SK-5608
	SOCKET WRENCH FOR NOZZLE
	RETAINING RING MANUAL PLACEMENT TOOL FOR RETAINING RING ASSEMBLY MS7-M05R
BEARING HOUSING	BEARING INSTALLATION/REMOVAL DEVICE
	BEARING AXIAL PLAY CHECK DEVICE
	SHAFT BOX PULL-OUT DEVICE
AIR BAG	PNEUMATIC SPRING LIFTING SCREW
BRAKE DISC	CENTERING TOOL
	BEVEL TOOL
	ALIGNMENT TOOL

COMPONENT	*DESCRIPTION*
	DRIVE
	PINS
	TEMPORARY BOLTS
	ALIGNER
	CONNECTOR
	SPACER
	WORKBENCH
TRICK	CENTER PIVOT EXTRACTION TOOL
WHEEL	ERTALON SLEEVE
GANGWAY	LIFTING BEAM

Source: Exhibit A3 of the notice of AGREEMENT No. 841117301100.

8.2.2 Telecom and Signaling Spares

In the relations with rotating materials (spare parts in the bases), the recorded balance refers to that reported by the teams on 01/23/2024. This balance may be less than or equal to zero in the future, as the related materials are available to the teams to be used in the attendance of failures, improvements to be carried out in equipment by the maintenance teams, etc. The variation of these quantities, as well as the eventual obsolescence of the equipment or the impossibility of acquiring spare parts, will not give rise to the economic and financial rebalancing of the AGREEMENT.

Table 105 - Spare parts list – Telecom

CODECTTM	DESCRIPTION	BALANCE
82299	24-PORT GIGABIT POE SWITCH + 2-PORT SFP	3
82309	P25 DIGITAL MOBILE RADIO TRANSCEIVER, WORKS IN ANALOG, DIGITAL AND DUAL MODES, RF POWER FROM 5 TO 50W, 1024 CHANNELS, FREQUENCY RANGE 136 TO 174 MHZ, CHANNEL SPACING 6.25/12.5 KHZ, FREQUENCY STABILITY +/- 1.0 PPM, SPURIOUS EMISSION -73 DB, 13.6 VDC +/-15% POWER SUPPLY, 2.55" BACKLIT GRAPHIC LCD, IP54 PROTECTION	5
86334	DIRECTLY BURIED OPTICAL CABLE, CFO TYPE SM G 72, 72 ACRYLATE-SHEATHED OPTICAL FIBERS, SINGLE-MODE TYPE (SM G.652) COLORED AND GROUPED INTO BASIC UNITS, 12 OPTICAL FIBERS PER LOOSE TUBE, STRANDED LOOSE TUBE, DIELECTRIC CORE AND TRACTION ELEMENT, ICE-COLD CORE, COLOR PATTERN OF FIBERS AND COLORED LOOSE TUBES ACCORDING TO ABNT, INNER AND OUTER THERMOPLASTIC SHEATH IN BLACK COLOR, ADDITIONAL COATING IN POLYAMIDE, ACCORDING TO NBR 14103, WITH APPROVAL CERTIFICATION ISSUED BY ANATEL, PACKAGING IN 4000M COIL	1

Fonte: CPTM, 2024.

Table 106 - Spare parts list – Signaling

CODECTTM	DESCRIPTION	BALANCE
72471	MONOBLOC TRAFFIC LIGHT, BLUE COLOR, LED, VOLTAGE 110VAC/VDC, FOR DRILLING 22MM	22
79604	CAPACITOR, ELECTROLYTIC, CAPACITANCE 4700UF, TENSAO 200VDC	12
69395	MINIDISJUNTOR, 2 PROTECTED POLES, NOMINAL CURRENT 16 A, DISPAO CURVE B,	7
79543	SINGLE-PHASE CAPACITIVE UNIT, CAPACITANCE 91.6UF, POWER 1.67KVAR	3
79927	MODULAR SIGNAL LIGHT, WHITE COLOR, VOLTAGE 110~120VAC, FOR DRILLING 22MM	16

CODECTTM	DESCRIPTION	BALANCE
25411	SOLDERING IRON TIP 1.6 MM / 370 GR CELSIUS	2
85031	E-TYPE FUSE, CURRENT 0.5A, VOLTAGE 15KV, BREAKING CAPACITY 30KA	4
72436	COMMAND SWITCH, 2 FIXED POSITIONS AT 60° ANGLE, 1NA+1NC CONTACT	8
71756	MONOPOLAR SECTIONING BASE, FOR 10 X 38MM FUSE, MAXIMUM NOMINAL CURRENT 32A	3
71766	THREE-POLE CONTACTOR, FOR MOTOR DRIVE WITH A MAXIMUM POWER OF 7.5KW	1
72428	MONOBLOC SIGNAL LIGHT, YELLOW COLOR, LED, VOLTAGE 110VAC/VDC, FOR DRILLING 22MM	23
72430	MONOBLOC SIGNAL LIGHT, WHITE COLOR, LED, VOLTAGE 110VAC/VDC, FOR DRILLING 22MM	22
72429	MONOBLOC SIGNAL LIGHT, GREEN COLOR, LED, VOLTAGE 110VAC/VDC, FOR DRILLING 22MM	12
72474	MONOBLOC SIGNAL, RED COLOR, LED, VOLTAGE 110VAC/VDC, FOR DRILLING 22MM	14
72433	COMMAND SWITCH, 2 FIXED POSITIONS AT 60° ANGLE, 1NA CONTACT	3
THERE IS NONE	DIODE ARRAY FOR SIGNALING WITH LAMP TESTING	2
THERE IS NONE	RELAY, 4 SINGLE-BLADE REVERSIBLE CONTACTS, NOM VOLTAGE 24VDC, MIN OPERATING VOLTAGE 19.2VDC,	4
12863	PRISM, DEFLECTOR, GLASS, CLEAR, DIAM 84MM (USED IN SEARCH LIGHT SIGNS)	1
69587	LAMBDA SOURCE 12 VDC/15A MOD. SVS-150-12	1
69893	TRANSFORMER OF THE TRAFOS RACK FOR CDV ADJUSTMENT	7

Fonte: CPTM, 2024.

8.2.3 Overhead Network Spare Parts & Substations

The following is the list of overhead network and substation spares. The balance recorded here refers to the date of 01/23/2024.

Table 107 - Spare parts list – Overhead network and substations

CODECTTM	DESCRIPTION	BALANCE
86691	SHIELDED FUEL PUMP, AGRICULTURAL AND INDUSTRIAL USE, SPARE PART FOR MWM MODEL MS3.9T ENGINE, USED IN STEMAC GENERATOR	1
70066	STARTER MOTOR SHUT-OFF VALVE, FOR NT-855-G6 AND NTA-855-G3 CUMMINS DIESEL GENERATOR SET ENGINE	2
41470	SPECIFIC FUEL FILTER WITH WATER SEPARATOR, GENERATOR APPLICATION, CUMMINS BRAND, MOD 400DFCE1713	2
74224	LUBRICATING OIL FILTER, HEIGHT 255MM, THREAD DIAMETER 109MM, THREAD DIAMETER 11/ 8 - 16, APPLICATION DIESEL GENERATOR SET WITH SCANIA DC12 ENGINE	2
72424	FUEL/WATER PRIMARY COALESCING FILTER ELEMENT, DIAM EXT 83MM, DIAM INT 69MM, ALT 102MM, WITH DRAIN, DIESEL GENERATOR SET APPLICATION, OLYMPIAN-CATERPILLAR BRAND, MODEL GEP-150 THREE-PHASE W/ PERKINS 1006TAG ENGINE	5
74222	FUEL FILTER, HEIGHT 158MM, THREAD OUTER DIAMETER 95MM, THREAD INNER DIAMETER 13/ 16 X 18, APPLICATION DIESEL GENERATOR SET EQUIPPED WITH CUMINNS 6CTAA ENGINE	5
80959	FUEL FEED PUMP, SPARE PART FOR MOTOR-GENERATOR SETS, DIESEL ENGINE, PERKINS BRAND, MODELS 6357/ 6358	6
72421	FUEL FILTER, HEIGHT 141MM, THREAD OUTER DIAMETER 78MM, THREAD INNER DIAMETER M16 X 1.5, APPLICATION DIESEL GENERATOR SET EQUIPPED WITH CUMINNS 6CTAA ENGINE	7
74221	FUEL FILTER, HEIGHT 141MM, THREAD OUTER DIAMETER 78MM, THREAD INNER DIAMETER M16 X 1.5, APPLICATION DIESEL GENERATOR SET EQUIPPED WITH CUMINNS 6CTAA ENGINE	15

CODECTTM	DESCRIPTION	BALANCE
21600	OIL FILTER ELEMENT, USED IN OLYMPIAN-CATERPILLAR GEP-150 THREE-PHASE DIESEL GENERATOR SET W/ PERKINS 1006TAG ENGINE	10
71342	WATER/FUEL SEPARATOR FILTER ELEMENT (DIESEL); APPLICATION SUCTION LINE (PRIMARY FILTER), ORIGINAL VW CODE: 2RO127177	2
69118	NON INTEGRATED COMPACT FLUORESCENT LAMP, 32W, 3U BULB, BASE GX24Q-3, 4000K	5
71671	BIPOLAR SECTIONING BASE, FOR GH CERAMIC CARTRIDGE FUSE	6
71672	TRIPOLAR SECTIONING BASE, FOR GH CERAMIC CARTRIDGE FUSE	6
71702	FIRE DETECTOR, MULTISENSOR, FOR FPA 5000 BOSCH SYSTEM	16
71759	SPECIFIC OPENING AND CLOSING COIL (VOLTAGE TRIGGER)	4
72440	COMMAND SWITCH, 3 FIXED POSITIONS AT 60° ANGLE, 2NA CONTACT	10
72460	ROTARY SWITCH FOR VOLTMETER, PERFORMS 3 LINE READINGS WITH ZERO POSITION	1
72434	PUSH BUTTON, NON-ILLUMINATED, BLACK COLOR, 1NA CONTACT	4
71670	SPECIFIC ALARM CONTACT BLOCO (WARNING SWITCH)	2
70923	THERMOMAGNETIC CIRCUIT BREAKER, THREE-POLE, RATED CURRENT 630A, VOLTAGE 380/415 VAC	2
69390	MINIDISJUNTOR, 1 PROTECTED POLE, NOMINAL CURRENT 20 A, SHOT CURVE B,	9
70046	ROTARY SWITCH SWITCH, 3 POSITIONS, 3 POLES, NOMINAL20A CHAIN	2
71692	INTERFACE MODULE, FIRE SYSTEM FPA 5000 BOSCH	21
79223	MANUAL FIRE ALARM STARTER, INDOOR USE, RED, BOSCH SYSTEM	12
71693	FIRE DETECTOR BASE, FAP-OT 420, BOSCH FIRE SYSTEM	24
71695	MANUAL FIRE ALARM MONITOR, BOSCH SYSTEM	12
71450	SEGURANCA GLASS, FOR MANUAL ACTUATOR, BOSCH FIRE SYSTEM	230
71205	COMPACT FLUORESCENT LAMP NAO INTEGRATED, 26W, 2U BULB, G24D-3 BASE, 2700K	60
80264	LAMPADA FLUORESCENTE TUBULAR, 28W, BULBO T5, BASE G5, 4000K	68
80266	BALLAST, ELECTRONIC, 2 FLUORESCENT LAMPS T5, 28W, 220V	15
71687	COMBINED SIRENE/STROBO, MINIATURE, BOSCH FIRE SYSTEM	30
71749	TIMER RELAY - MULTISCALE, POWER SUPPLY: 48 TO 250VDC / 93 TO 245VAC	4
80313	COMMAND AND CONTROL CHART FOR 12 PULSE BRIDGE U1 OF THE EFACEC BATTERY CHARGER	1
34814	SPECIFIC ELECTRICAL CONTACT, CIRCUIT BREAKER APPLICATION, BRAND AEG-TELEFUNKEN	12
THERE IS NONE	5000ª DISJUNTOR CALIBRATION MACHINE	1
66656	SECTION INSULATOR - EAST EXPRESS	6
THERE IS NONE	FUSIVEIS 88KV/13.8 KV X 10A DA S.E. ERMELINO MATARAZZO	3
THERE IS NONE	1430A/4600VRRM LED BLOCK	10
THERE IS NONE	4000V/160A ULTRA-FAST FUSE WITH MICROSWITCH SUPPORT 170H3036	20
THERE IS NONE	POWER RELAY, WITH SCREW CONNECTION W/ BASE, MATERIAL: AGNI, CONTACTS: 3 REVERSIBLE 16A-AC15 COIL: UN 24VDC, WITH LOCKABLE TEST BUTTON LED+VARISTOR;	4
THERE IS NONE	RC FILTER FOR SECHERON RETIFIER	5
THERE IS NONE	88KV PANEL SAW TYPE ON/ 1988/	1
THERE IS NONE	PROTECTION AND CONTROL RELAY (IED) WITH PRP AND F.O. SEPCOS-2 REDUNDANCY	3
THERE IS NONE	REF615 FEEDER PROTECTION AND CONTROL	2

Fonte: CPTM, 2024.

In addition, on 10/16/2024, CPTM provided the list of spares related to the power system, available at the substations and sectioning cabins, in addition to the respective balance of each one, as shown in the table below.

Table 108 - Spares ratio – Power System

CPTM CODE	DESCRIPTION	LOCAL	BALANCE
THERE IS NONE	POWER BLOCK FOR RECTIFIER WITH DIODE	SE AGU / SGU	4
THERE IS NONE	SWITCH SUGGEDIZED 19" (AFR677) ABB	SE AGU / SGU	1
THERE IS NONE	MULTIFUNCTIONAL RELAY REF 620 / ABB	SE AGU / SGU	1
THERE IS NONE	ABB DIM8H, DIGITAL INPUT MODULE, 8 INPUTS MOD 600 ADIM 8H	SE AGU / SGU	15
THERE IS NONE	DUCT CLAMP	SE AGU / SGU	75
THERE IS NONE	VOLTAGE MEASURING AMPLIFIER	SE AGU / SGU	1
THERE IS NONE	FIRE DETECTOR BASE	SE AGU / SGU	5
THERE IS NONE	PUSH-IN INTERFACE RELAY BASE 24 CVV	SE AGU / SGU	10
THERE IS NONE	BORNE PHOENIX 600V 50A 24-28DWG	SE AGU / SGU	120
THERE IS NONE	CABLE FOR NEON LAMP WITH BRACKET; A CAPACITIVE ISOLATOR TEST SOCKET, M10 X M10; TORQUE 1.0 KGFM; MANUFACTURER'S CODE: AIC-15; MANUFACTURER: ALIEM.	SE AGU / SGU	15
THERE IS NONE	3KCC MOTORIZED DISCONNECT SWITCH CONTROL BOX	SE AGU / SGU	1
THERE IS NONE	LIMIT SWITCH 15A 250V	SE AGU / SGU	25
THERE IS NONE	2FN PLASTIC LIMIT SWITCHES CX TEM TVH236-02ZP	SE AGU / SGU	5
THERE IS NONE	CONTATOR AUXILIAR CA3KN22GD SCHNEIDER	SE AGU / SGU	55
THERE IS NONE	FIRE DETECTOR	SE AGU / SGU	7
THERE IS NONE	After 20KA	SE AGU / SGU	5
THERE IS NONE	POWER SUPPLY; CC-AC/DC SWITCHED; MONOPHASE; STABILIZED; INPUT VOLTAGE: 85-264 VAC (45-65 HZ) / 90-350 VDC; OUTPUT VOLTAGE: 24 VDC STABILIZED; 1.3 A; IP 20 ; MANUFACTURER'S CODE: MINI-PS-100-240AC/24DC/1,3; MANUFACTURER: PHOENIX CONTACT;	SE AGU / SGU	17
THERE IS NONE	MEDIUM VOLTAGE FUSE; HH CURRENT LIMITER; PERCUSSION PIN; 13.8 KV; 2 A; CAPAC. INTERRUPTION: 63 KA; SIZE: S=325 MM / E=292; OUTER DIAMETER: 66 MM; MANUFACTURER CODE: IN22PI5002; MANUFACTURER: MONTEMA;	SE AGU / SGU	9
THERE IS NONE	MEDIUM VOLTAGE FUSE; HH CURRENT LIMITER; PERCUSSION PIN; 30/36 KV; 2 A; CAPAC. INTERRUP. 31.5 KA; SIZE: S=570 MM / E=537 MM; OUTER DIAMETER: 85 MM; MANUFACTURER CODE: IN42PI8002; MANUFACTURER: MONTEMA.	SE AGU / SGU	18
THERE IS NONE	NH FUSE, T000, 50A, GL/GG/ RETARDED CLASS/500VAC, 100KA.	SE AGU / SGU	12
THERE IS NONE	FUSIVEL NH00 125A	SE AGU / SGU	8
THERE IS NONE	RECTIFIER FUSE	SE AGU / SGU	4
THERE IS NONE	CAPACITIVE ISOLATOR; MT; EPOXY; INTERNAL USE; SAIDA FOR LUMINOUS INDICATOR; NOMINAL TENSAO: 15 KV; VN. FREQ. IND/NBI: 38/95 KV;	SE AGU / SGU	8
THERE IS NONE	CAPACITIVE INSULATOR; MT; EPOXY; INDOOR USE; OUTPUT FOR LIGHT INDICATOR; RATED VOLTAGE: 36 KV; VN. FREQ. IND/NBI: 70/170 KV; ACCESSORY: A NEON LAMP WITH SUPPORT; A TEST SOCKET; M10 X M10; TORQUE 1.0 KGFM; MANUFACTURER'S CODE: AIC-36; MANUFACTURER: ALIEM.	SE AGU / SGU	6
THERE IS NONE	SHORT CIRCUIT ISOLATOR SKYFIRE LI5IT	SE AGU / SGU	5

CPTM CODE	DESCRIPTION	LOCAL	BALANCE
THERE IS NONE	NEON LAMP WITH STAND; A CAPACITIVE ISOLATOR TEST SOCKET, M10 X M10; TORQUE 1.0 KGFM; MANUFACTURER'S CODE: AIC-15; MANUFACTURER: ALIEM.	SE AGU / SGU	5
THERE IS NONE	EXPLOSION-PROOF LUMINAIRE FLY 16/3	SE AGU / SGU	8
THERE IS NONE	EXPLOSION PROOF TURTLE LUMINAIRE 200WFLY 15/4	SE AGU / SGU	12
THERE IS NONE	OVERMARKET LUMINAIRE 2X28W	SE AGU / SGU	8
THERE IS NONE	LUMINARIA MXCAN056M1F4FT3P1P	SE AGU / SGU	2
THERE IS NONE	LUMINARIA TCW063 PHILIPS B51	SE AGU / SGU	8
THERE IS NONE	MINI INDUSTRIAL RELAY 8 16 A	SE AGU / SGU	15
THERE IS NONE	SIGNALING AND PROTECTION MODULE	SE AGU / SGU	12
THERE IS NONE	MOTOR FOR CIRCUIT BREAKER-E 24VDC... 220...250VAC/VDC... 480...525VAC	SE AGU / SGU	7
THERE IS NONE	PARA-RAIOS; INTERNAL USE; 36 KV; NOMINAL DISCHARGE CURRENT: 10 KA - 8/20 MICRO SEG. CC CAPACITY: 10 KA; 50/60 HZ; LINHA DOWNLOAD CLASS: LDC2A; MANUFACTURER'S CODE: PBPE 36/10/2; MANUFACTURER: BALESTRO.	SE AGU / SGU	9
THERE IS NONE	PARARAIOS; INDOOR USE; ZINC OXIDE; 15 KV; NOMINAL DISCHARGE CURRENT: 10 KA - 8/20 MICRO SEC.; DC CAPACITY: 10 KA; 60 HZ; LINE DISCHARGE CLASS: LDC2A; MAX. OPERATING VOLTAGE. CONTINUES: 12.7 KV; MANUFACTURER'S CODE: PBPE 15/10/2; MANUFACTURER: BALAST.	SE AGU / SGU	9
THERE IS NONE	POWER RELAY 2POLE 16A	SE AGU / SGU	3
THERE IS NONE	REFLECTOR FOR METALLIC VAPOR LAMP 400W	SE AGU / SGU	8
THERE IS NONE	RELÉ INTERFACE PUSH-IN 24 CVV	SE AGU / SGU	10
THERE IS NONE	RAPITO RELAY 3MS WITH 4 CONTACTS	SE AGU / SGU	15
THERE IS NONE	PT100 SILICON INSULATION SENSOR 20KV	SE AGU / SGU	2
THERE IS NONE	SHUNT FOR MEASUREMENT, CLASS 0.5% FOR DIRECT CURRENT (DC) APPLICATION WITH BRASS SCREW AND PHENOLITE BASE, VOLTAGE DROP 60MV, RATED CURRENT 30A... 150A	SE AGU / SGU	3
THERE IS NONE	BHS HB2-BV67 SIGNAL LIGHT	SE AGU / SGU	18
THERE IS NONE	MODULAR FINDER TIMER	SE AGU / SGU	2
THERE IS NONE	THERMOSTAT; BIMETALLIC; 240 VAC; 60 HZ; 10A RESIST / 1A INDUT; ADJUSTMENT RANGE: 0 - 60oC; 1NF; IP 20; RAIL FASTENING; MANUFACTURER'S CODE: TLZ 520; MANUFACTURER: TASCO.	SE AGU / SGU	3
THERE IS NONE	TIRISTOR POWER BLOCK 50A 900V	SE AGU / SGU	7
THERE IS NONE	EPOXY MOLDED CURRENT TRANSFORMER, TRANSFORMATION RATIO: 300A TO 5A, ACCURACY CLASS: 0.3C25, FTH: 1.2XIN, NBI 4/-/- KV, UMAX.: 0.6KV, 60HZ, TP WINDOW TYPE 41X15MM;	SE AGU / SGU	4
THERE IS NONE	SINGLE-PHASE POTENTIAL TRANSFORMER FOR MEASUREMENT 220/R3 115/R3V – 400VA,	SE AGU / SGU	4
THERE IS NONE	SECHERON ULTRA-FAST DC DISJOINTERS	SE AGU / SGU	1
THERE IS NONE	SECHERON ULTRA-FAST DC DISJOINTERS	SE AGU / SGU	1
THERE IS NONE	SECHERON ULTRA-FAST DC DISJOINTERS	SE AGU / SGU	2
THERE IS NONE	VD4 MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS 36 KV - VD4/W 36.12.32	SE AGU / SGU	1
THERE IS NONE	VD4 MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS 36 KV - VD4/W 36.12.32	SE AGU / SGU	1
THERE IS NONE	VD4 MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS 36 KV - VD4/W 36.12.32	SE AGU / SGU	1
THERE IS NONE	VD4 MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS 17KV	SE AGU / SGU	1

CPTM CODE	DESCRIPTION	LOCAL	BALANCE
THERE IS NONE	VD4 MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS 17KV	SE AGU / SGU	1
THERE IS NONE	VD4 MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS 17KV	SE AGU / SGU	1
THERE IS NONE	SECHERON ULTRA-FAST DC DISJOINTERS	SE AGU / SGU	1
THERE IS NONE	EFACEC RECTIFIER GROUP MINIMUM CURRENT RESISTOR SET	SE EMF / CS ITI	0
THERE IS NONE	SECHERON CIRCUIT BREAKER WITHOUT TROLLEY	SE CVN / SE GUA	0
THERE IS NONE	SECHERON CIRCUIT BREAKER SHUNT AND RETENTION COIL	SE CVN / SE GUA	0
THERE IS NONE	MOTOR DE DISJUNTOR ABB VD4 17KV	SE CVN / SE GUA	0
THERE IS NONE	INTERNAL CUBICLE DISCONNECT MOTOR 17KV	SE CVN / SE GUA	0
THERE IS NONE	MOTOR DISJUNTOR ABB OHB OUTDOOR SF6 40KV	SE CVN / SE GUA	0
THERE IS NONE	MECANISMO DISJUNTOR ABB OHM OUTDOOR SF6 40KV	SE CVN / SE GUA	0
THERE IS NONE	COIL MC/MO DISJUNTOR ABB VD4 40KV	SE CVN / SE GUA	0
THERE IS NONE	COIL MU DIDJUNTOR ABB VD4 17KV	SE CVN / SE GUA	0
THERE IS NONE	FUSIVEL 34,5 S/E GUA	SE CVN / SE GUA	0
THERE IS NONE	COMECEL CONTROL BOX (3KVCC DISCONNECTOR)	SE CVN / SE GUA	0
THERE IS NONE	COMECEL 3KVCC PANEL SAW	SE AGU / SGU	0
THERE IS NONE	PCL PL BOARD - SLAVE (18590055) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	PCL PL BOARD - MASTER (18590054) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	130A (15430018) RETIFYING DIODE CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	RETIFYING DIODE 70A (15430015) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	THYRISTOR MODULE 57A (20741004) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	THYRISTOR MODULE 120A (20741021) CTRL-TECH	SE AGU / SGU	0
75683	FAN / EXAUSTOR (14521001) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	PL PPS PLATE / PULSES RECTIFIER (18598014) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	PLATE PL IX604A - CPU SMART (18590008) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	PL IX603A BOARD - SMART KEYBOARD (18598017) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	LIQUID CRYSTAL DISPLAY (14429000) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	CONTROL BOARD / RECTIFIER (18590012) CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	SOURCE BOARD (185906003 CTRL-TECH	SE AGU / SGU	0
THERE IS NONE	CENTRAL SITRAS PRO (A7B91503870053) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	HMI SITRAS PRO (A7B91503870055) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	RELÊ SUBTENSÃO_SOBRETENSÃO_V (XU2AC) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	NETWORK INTERFACE (A7B93000764888) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	SIEMENS INTERFACE PROCESSOR (A7B93000756966)	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	CP COMMUNICATION AND PROCESSING (A7B93000760566) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	BUFFER AMPLIFIER / SITRAS (A7B93000839767) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0

CPTM CODE	DESCRIPTION	LOCAL	BALANCE
THERE IS NONE	VOLTAGE TRANSDUCER (A7B91503880203) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	LBS CONTROL PLATE / ELECTRICAL CONNECTION (A7B93000838961) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	SCR CONTROL BOARD (A7B91503880202) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	LBS (A7B91503803289) SIEMENS CONTROL BOARD	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	60W (A7B91503880201) SIEMENS POWER SUPPLY	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	CONVERSOR RS 485 (BF1311511473) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	LBS CONTROL PLATE / CONNECTING EQUIPMENT (A7B93000838960) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	VLD VOLTAGE MEASUREMENT TEST BOX (A7B93000838962) SIEMENS	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	RECTIFIER DIODE 4000V (W2664NC400)	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	SIEMENS DIGITAL CHART RECORDER (A7B93000835337)	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	SURGE PROTECTION DEVICE (7P.26.9.420.1020) FINDER	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	22
THERE IS NONE	NX250 (LV431545) SCHNEIDER COMPACT MOTORIZED DRIVE	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	1
THERE IS NONE	SURGE PROTECTION DEVICE (7P.26.9.420.1025) FINDER	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	15
THERE IS NONE	CONTATOR AUXILIAR CA3KN40GD / SCHNEIDER	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	20
THERE IS NONE	POWER METER PM201MG / SCHNEIDER	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	RELÊ MULTIFUNCTIONAL TIMER (80.01.0.240.0000) FINDER	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	0
THERE IS NONE	MODULAR INTERFACE RELAY (46.52.9.125.0040) FINDER	SE PTR / SE ISP / CS ALV / CS MTD / CS BAS / CS EGO	5

CPTM CODE	DESCRIPTION	LOCAL	BALANCE
THERE IS NONE	SECHERON CIRCUIT BREAKER MOUNTED ON SIEMENS TROLLEY	SE DOBO / CS FVC / CS JBO / CS IQC / SE PTR / SE BCB / SE PAR / SE ISP / CS EST / CS JPB / CS ALV / CS MTD / CS BAS / CS NOT / CS EGO	3
THERE IS NONE	SIEMENS INTERNAL 34.5 DISJUNCTOR	SE DOBO / CS FVC / CS JBO / CS IQC / SE PTR / SE BCB / SE PAR / SE ISP / CS EST / CS JPB / CS ALV / CS MTD / CS BAS / CS NOT / CS EGO	0
THERE IS NONE	SIEMENS INTERNAL DISJUNCTOR 13.8	SE DOBO / CS FVC / CS JBO / CS IQC / SE PTR / SE BCB / SE PAR / SE ISP / CS EST / CS JPB / CS ALV / CS MTD / CS BAS / CS NOT / CS EGO	0

Fonte: CPTM, 2024.

Throughout the CONCESSION period, all modifications, replacements, new equipment introduced, renovations, demolitions and new constructions that will alter the fixed assets and that will belong to the CONCESSION, under the terms defined in the AGREEMENT, must be previously informed and approved by the GRANTING AUTHORITY.

8.3 AUXILIARY VEHICLES AND EQUIPMENT

The list of auxiliary vehicles and equipment used by CPTM for maintenance on the LINES, which makes up the EXISTING INFRASTRUCTURE to be transferred to the CONCESSIONAIRE is presented in the table below.

Table 109 - Equipment assigned to the CONCESSIONAIRE

DESCRIPTION	AS.	MAKER	MODEL	YEAR MANUFACTURE	LIFE
Tamping machine, aligner and road leveler	1	Plasser & Theuer	UM08-16	1996	20 years
Turnout tamper, aligner and leveler	1	Plasser & Theuer	08-275	1996	5 years
Ballast regulator	1	Plasser & Theuer	SSP 203	1996	20 years

Fonte: CPTM, 2024.

Table 110 – Wagons assigned to the CONCESSIONAIRE

DESCRIPTION	Quantity
Trailhead rail wagon PNR 621084-8I	1
Rail car PNR 621337-5I	1
Rail car PNR 621047-3I	1
Rail car PNR 620679-4I	1
Rail wagon PNR 620602-6I	1
Rail car PNQ 340037-9	1
Rail car PNR 621100-3I	1
Headland Rail Wagon PNR620530-5I	1
Rail Car PNR 620951-3I	1
Rail Car PNR 620979-3I	1
HNS Wagon 650002	1
HNS Wagon 650005	1
HNS Wagon 650009	1
HNS Wagon 650012	1
HNS Wagon 650013	1
HNS Wagon 650014	1

Fonte: CPTM, 2024.

The GRANTING AUTHORITY will provide such auxiliary vehicles and equipment at the beginning of the COMMERCIAL OPERATION.

8.4 TECHNICAL DOCUMENTS

The existing technical documents related to the design of the systems, equipment and maintenance facilities of the LINES will be made available to the CONCESSIONAIRE after the signing of the AGREEMENT.
The process of accessing this documentation will be detailed after signing the AGREEMENT with the COEXISTENCE COMMITTEE.

8.5 MAINTENANCE HISTORY

After signing the AGREEMENT, the CONCESSIONAIRE will be allowed full access to the maintenance control system of the LINES.

8.6 *SOFTWARE* AND OPERATING PROGRAMS

After signing the AGREEMENT, the CONCESSIONAIRE will be given the list of the *available software* and operational programs used in the systems, ROLLING STOCK, auxiliary vehicles and microprocessed equipment of the LINES.

9 WATER AND SEWAGE CONNECTIONS

Table 111 – Water and sewage connections

LINE	SEASON	SUPPLIER	RGI	LOCAL	ADDRESS	MUNICIPALITY	UF	Zip code	CONNECTION TYPE
11	NO	SABESP	2000292696	SECC CABIN. FERRAZ DE VASCONCELOS	R. FELIX MAZZUCA, 100	FERRAZ DE VASCONCELOS	SP	08500-025	WATER
12	NO	SABESP	2000292700	CABINE SECC. ITAQUAQUECETUBA	R. ANTONIO DA SILVA COSTA, 300	ITAQUAQUECETUBA	SP	08573-480	WATER
11	NO	SABESP	2000277194	DOM BOSCO SUBSTATION	AV. JACÚ-PESSEGO, 2141	SÃO PAULO	SP	08260-005	WATER
13	NO	SABESP	0164280219	ENG. GOULART SUBSTATION	R. DR. ASSIS RIBEIRO, 3965	SÃO PAULO	SP	03717-004	WATER
13	NO	SABESP	0855931841	ENG CABINE PANEL SAW. GOULART	R. DR. ASSIS RIBEIRO, 3225 A	SÃO PAULO	SP	03717-003	WATER
13	YES	SABESP	0164349510	ENG. GOULART STATION	R. DR. ASSIS RIBEIRO, 3500	SÃO PAULO	SP	03717-004	WATER
13	YES	SABESP	0164349600	ENG. GOULART BIKE RACK - PÇA. SHAMAN	PRAÇA GAJÉ, 22A	SÃO PAULO	SP	03725-040	WATER AND SEWAGE
13	YES	SABESP	0932693903	ENG. GOULART BIKE RACK - TIETÊ PARK	VIA PARQUE, 100	SÃO PAULO	SP	03707-025	WATER AND SEWAGE
11	NO	SABESP	0577781596	PATRIARCA SUBSTATION	RUA ALCÁCER, 63 A VILA GRANADA	SÃO PAULO	SP	03655-000	WATER AND SEWAGE
11	NO	SABESP	0685891313	DOM BOSCO STATION	R. ALAYDE DE SOUZA COSTA, 616	SÃO PAULO	SP	08215-490	WATER AND SEWAGE
12	NO	SABESP	0743388038	MANOEL FEIO SUBSTATION	R. ARAÇATUBA, 446 B	ITAQUAQUECETUBA	SP	08577-250	WATER AND SEWAGE
11	YES	SABESP	0046945970	SUZANO STATION	R. DR. PRUDENTE DE MORAES, 439	SUZANO	SP	08502-230	WATER AND SEWAGE
11	NO	SABESP	0227778227	SECTIONAL CABIN GUAIANAZES	PÇA. PRESIDENTE VARGAS, 1	SÃO PAULO	SP	08441-490	WATER
12	NO	SABESP	0140516808	SÃO MIGUEL PAULISTA SIGNAGE BASE	R. SALVADOR DE MEDEIROS, 451 - SÃO	SÃO PAULO	SP	08010-020	WATER AND SEWAGE

LINE	SEASON	SUPPLIER	RGI	LOCAL	ADDRESS	MUNICIPALITY	UF	Zip code	CONNECTION TYPE
					MIGUEL PAULISTA				
11	NO	SABESP	0154175226	ARTHUR ALVIN DISCONNECTOR CABINE	OF. ÁGUIA DE HAIA, 154	SÃO PAULO	SP	03694-000	WATER AND SEWAGE
11	YES	SABESP	0538589990	ESTAÇÃO GUAIANAZES TERM. SOUTH	R. HIPOLITO DE CAMARGO, 532	SÃO PAULO	SP	08410-030	WATER AND SEWAGE
11	YES	SABESP	0528448706	PUBLIC TOILETS - GUAIANAZES TERM. SOUTH	R. HIPOLITO DE CAMARGO, 680	SÃO PAULO	SP	08410-030	WATER AND SEWAGE
11	YES	SABESP	0547326386	PUBLIC TOILETS - GUAIANAZES TERM. NORTH	R. COPENHAGUE, 13	SÃO PAULO	SP	08441-780	WATER AND SEWAGE
11	NO	SABESP	0146572440	RADIO TOWER GUAIANAZES	R. MARAMBAINHA, 37	SÃO PAULO	SP	08440-550	WATER AND SEWAGE
12	NO	SABESP	0503333565	ENG. SÃO PAULO SUBSTATION	R. BRESSER, 1933 A	SÃO PAULO	SP	03053-000	WATER AND SEWAGE
11	YES	SABESP	0525494707	DOM BOSCO STATION	R. ITALINA, 431 A	SÃO PAULO	SP	08290-705	WATER AND SEWAGE
11	YES	SABESP	0222946512	DOM BOSCO STATION	R. SATURDAY D´ ANGELO, 1024	SÃO PAULO	SP	08210-989	WATER AND SEWAGE
12	NO	SABESP	0042346002	SUBSTATION - CALMON VIANA (YARD)	R. HERCULANO DUARTE RIBAS, 612	SÃO PAULO	SP	08550-130	WATER AND SEWAGE
12	NO	SABESP	0042633672	SIGNAGE - CALMON VIANA	R. HERCULANO DUARTE RIBAS, 556	SÃO PAULO	SP	08550-130	WATER
11	YES	SABESP	0042687926	POÁ STATION	PÇA. ELIAS YOUSSEL TANNOUNS, 2	POA	SP	08561-005	WATER AND SEWAGE
11	YES	SABESP	0488408075	ANTONIO GIANETTI STATION	AV. GOV. JANIOS QUADROS, 1200	SÃO PAULO	SP	08526-000	WATER AND SEWAGE
12	NO	SABESP	0162594240	BASE SECURITY ENGº TRINDADE	R. ENG. TRINDADE, 112 C/8	SÃO PAULO	SP	03703-130	WATER AND SEWAGE
12	NO	SABESP	0131801007	PÁTIO ENG. SÃO PAULO	R. CEL. ALBINO BAIRÃO, 460	SÃO PAULO	SP	03054-020	WATER AND SEWAGE
12	YES	SABESP	0121244008	BRÁS MEDICAL CENTER STATION	AV. RANGEL	SÃO PAULO	SP	03002-000	WATER AND SEWAGE

LINE	SEASON	SUPPLIER	RGI	LOCAL	ADDRESS	MUNICIPALITY	UF	Zip code	CONNECTION TYPE
					PESTANA, S/N				
12	YES	SABESP	0121246132	BRÁS STATION/NEW BUILDING	PRAÇA AGENTE CICERO, S/N A	SÃO PAULO	SP	03002-010	WATER AND SEWAGE
12	YES	SABESP	0683465490	BRÁS/CCO PUBLIC BATHROOM	R. DR. ALMEIDA LIMA, 92	SÃO PAULO	SP	03046-010	WATER AND SEWAGE
12	YES	SABESP	0483919560	ARACARÉ STATION	R. VER. OSVALDO NASCIMENTO, 55	ITAQUAQUECETUBA	SP	08572-740	WATER AND SEWAGE
12	YES	SABESP	0135132061	C. ERMELINO STATION	R. DR. ASSIS RIBEIRO, 8454	SÃO PAULO	SP	03827-000	WATER AND SEWAGE
12	YES	SABESP	0717936902	JARDIM HELENA STATION	AV. VALLE, 15	SÃO PAULO	SP	08081-070	WATER AND SEWAGE
12	YES	SABESP	0925842680	JARDIM HELENA BIKE RACK	R. CONCEIÇÃO DO ALMEIDA, 170 A	SÃO PAULO		08081-370	WATER AND SEWAGE
12	YES	SABESP	0718080785	ITAIM PAULISTA STATION	R. CORDÃO DE S. FRANCISCO, 958	SÃO PAULO	SP	08190-000	WATER AND SEWAGE
12	YES	SABESP	0718074033	ITAIM PAULISTA STATION BIKE RACK	R. CORDÃO DE S. FRANCISCO, 888	SÃO PAULO	SP	08190-000	WATER AND SEWAGE
12	YES	SABESP	0722201630	JARDIM ROMANO STATION	R. JOSÉ ALVARES MOREIRA, 231	SÃO PAULO	SP	08111-590	WATER AND SEWAGE
12	YES	SABESP	0407491260	SÃO MIGUEL PAULISTA STATION	R. SALVADOR DE MEDEIROS, 255	SÃO PAULO	SP	08010-020	WATER AND SEWAGE
12	YES	SABESP	0042351502	CALMON VIANA STATION	OF. BRAZIL, 1441	POA	SP	08560-010	WATER AND SEWAGE
12	NO	SABESP	0150709218	SEBASTIÃO GUALBERTO SUBSTATION (YARD)	R. MELO PEIXOTO, 1620	SÃO PAULO	SP	03070-000	WATER AND SEWAGE
12	YES	SABESP	0033595062	ITAQUAQUECETUBA STATION	R. TANCREDO A. NEVES, 746	ITAQUAQUECETUBA	SP	08571-000	WATER
11	NO	SABESP	0161086632	CARLOS DE CAMPOS SECTIONING	R. ALVINÓPOLIS, 450	SÃO PAULO	SP	03644-070	WATER AND SEWAGE

LINE	SEASON	SUPPLIER	RGI	LOCAL	ADDRESS	MUNICIPALITY	UF	Zip code	CONNECTION TYPE
				CABIN (VILA MATILDE)					
12	YES	SABESP	0716385554	USP LESTE STATION	R. DR. ASSIS RIBEIRO, 6081	SÃO PAULO	SP	03827-000	WATER AND SEWAGE
12	YES	SABESP	0152712003	USP LESTE BIKE RACK	R. DR. ASSIS RIBEIRO, 5961	SÃO PAULO	SP	03827-000	WATER AND SEWAGE
11	NO	SABESP	0819667099	GOF SUPPORT BUILDING / GUAIANAZES YARD	R. SALVADOR GIANETTI, 555	SÃO PAULO	SP	08410-000	WATER AND SEWAGE
12	YES	SABESP	0158744608	TATUAPÉ STATION	R. CATIGUA, 174	SÃO PAULO	SP	03065-030	WATER AND SEWAGE
11	YES	SABESP	0526377194	JOSÉ BONIFÁCIO STATION	OF. NAGIB FARAH MALUF, 1500	SÃO PAULO	SP	08253-015	WATER AND SEWAGE
12	YES	SABESP	032667884	MANOEL FEIO STATION	AV. ELDORADO, S/N	ITAQUAQUECETUBA	SP	08577-020	WATER AND SEWAGE
12	NO	SABESP	0135131847	C. ERMELINO MATARAZZO SUBSTATION	R. DR. ASSIS RIBEIRO, 8459	SÃO PAULO	SP	03827-000	WATER AND SEWAGE
12	NO	SABESP	0743915852	ITAIM PAULISTA SECTIONING CABIN	R. CORDÃO DE SÃO FRANCISCO, 902	SÃO PAULO	SP	08190-000	WATER AND SEWAGE
11	YES	SABESP	0023814861	FERRAZ VASCONCELOS STATION	R. DIOMAR NOVAES, 39	FERRAZ DE VASCONCELO	SP	08500-410	WATER AND SEWAGE
13	YES	SABESP	0959743936	GUARULHOS AIRPORT STATION	OF. NATALIA ZARIF 460	GUARULHOS	SP	07224-180	WATER AND SEWAGE
13	YES	SABESP	0959986758	GUARULHOS CECAP STATION	AL. DOS LÍRIOS, S/Nº, PARQUE CECAP	GUARULHOS	SP	07190-012	WATER AND SEWAGE
13	NO	SABESP	0968063209	AYRTON SENNA SUBSTATION	RUA JOSÉ MARQUES PRATA, 452	GUARULHOS	SP	07034-090	WATER
13	NO	SABESP	0952683245	AIRPORT SUBSTATION	RUA JOAQUINA DE JESUS, 789 PQ. SAINT AGOSTINE	GUARULHOS	SP	07140-233	WATER AND SEWAGE
11	NO	SEMAE	0004919782	RFFSA WAREHOUSES AND RESIDENCES - MOGI	AV. FRANCISCO RODRIGUES FILHO	MOGI DAS CRUZES	SP	08773-380	WATER AND SEWAGE

LINE	SEASON	SUPPLIER	RGI	LOCAL	ADDRESS	MUNICIPALITY	UF	Zip code	CONNECTION TYPE
11	YES	SEMAE	0004861844	MOGI DAS CRUZES STATION	PÁTIO ESTAÇÃO, 28	MOGI DAS CRUZES	SP	08773-000	WATER AND SEWAGE
11	NO	SEMAE	0008824970	LEVEL CROSSING AMÉRICO RODRIGUES - MOGI	R. AMÉRICO RODRIGUES DA SAN BIAGIO	MOGI DAS CRUZES	SP	08773-160	WATER AND SEWAGE
11	YES	SEMAE	0004896204	MOGI DAS CRUZES STATION	PRAÇA SACADURA CABRAL, 0	MOGI DAS CRUZES	SP	08710-150	WATER AND SEWAGE
11	NO	SEMAE	0007124604	SECURITY POST - MOGI DAS CRUZES	PRAÇA SACADURA CABRAL, 0	MOGI DAS CRUZES	SP	08710-150	WATER AND SEWAGE
11	NO	SEMAE	0004381710	CAMPOS SALES - MOGI LEVEL CROSSING	R. PRES. CAMPOS SALES, 0	MOGI DAS CRUZES	SP	08730-490	WATER AND SEWAGE
11	NO	SEMAE	0008773706	JUNDIAPEBA TRAIN WASHER	R. GUILHERME GEORGE, 1235	MOGI DAS CRUZES	SP	08750-530	WATER AND SEWAGE
11	YES	SEMAE	0002477163	JUNDIAPEBA STATION	AV. AUREA MARTINS DOS ANJOS, 1700	MOGI DAS CRUZES	SP	08750-530	WATER AND SEWAGE
11	NO	SEMAE	0006306178	BRÁZ CUBAS SUBSTATION	R. PROF. MARIO PORTES, 700	MOGI DAS CRUZES	SP	08735-280	WATER
11	YES	SEMAE	0002214905	BRÁZ CUBAS STATION	AV. ANCHIETA, Nº 1 V. SOCORRO VELHO	MOGI DAS CRUZES	SP	08740-080	WATER AND SEWAGE
11	YES	SEMAE	0002142494	ESTUDANTES STATION	R. PROFESSOR ALVARO PAVAN, 0 C. CÍVICO	MOGI DAS CRUZES	SP	08780-430	WATER AND SEWAGE

Fonte: CPTM, 2024.

10 INSTRUMENTS CONCERNING THE CONCESSION AREA

10.1 GENERAL PROVISIONS

a) The instruments cited in Attachment 2 and Attachment 9 of this EXHIBIT I, and possibly also cited in the Table 112 to the Table 119, from the PRE-OPERATIONAL PHASE, shall be understood and treated by the CONCESSIONAIRE together with ARTESP, THE GRANTING AUTHORITY and CPTM, observing the following:

(i) The legal instruments supported by specific legislation, especially in the context of civil legislation (administrative easement), also including those identified as "term of permission of use", "assignment of use", "authorization of use" and other similar agreements, may be subrogated to the CONCESSIONAIRE. If subrogation is not applicable or if it is not decided for this treatment, such instruments will be subject to termination by CPTM, until the beginning of the COMMERCIAL OPERATION PHASE, and the CONCESSIONAIRE is responsible for renegotiation, including any legal and/or judicial determination, in what is pertinent in view of the applicable legal regulation, such as the need to comply with the provisions of the Federal Law No. 13,116/2015, whose article 12 was judged constitutional by the Federal Supreme Court;

1. the non-onerous instruments, signed due to public interest involving public equipment, with the municipalities, or with public bodies and entities, will be terminated by the CPTM until the beginning of the COMMERCIAL OPERATION PHASE, and the CONCESSIONAIRE, at the same time, must formalize new instruments to ensure continuity in the service of the public interest object of the adjustment to the community;

2. instruments with agreed use, but not formalized, however referring to activities of public interest in serving the community, which have been executed, it will be up to the CONCESSIONAIRE to evaluate the convenience and opportunity of their continuity, adopting measures to formalize the relationship to be agreed;

(ii) must be amended by amendment, excluding the CPTM from the agreements signed with the City Halls;

(iii) the terms of permission whose object is to generate a source of ancillary revenue, shall follow the provisions of EXHIBIT XII – ANCILLARY REVENUES;

(iv) Except in the cases of the item (iii) above, generating ancillary revenues, CPTM will assume all expenses inherent to the closure of the adjustments,

including indemnity charges, if any, when not reached by applicable legislation, including in the aspects mentioned in item (i).

10.2 EXISTING TRANSPOSITIONS IN THE LINES

i. The following tables explain the transpositions owned by CPTM (railway viaducts, road viaducts, underpasses, level crossings, footbridges, tunnels and bridges), existing in the LINES, which will be the responsibility of the CONCESSIONAIRE, as to maintenance and conservation.

ii. The structures above, in level and lower than the tracks that are part of the body of the stations or yards and that are not included in the following tables are also the exclusive responsibility of the CONCESSIONAIRE.

iii. There are situations in which the maintenance of transpositions has been done by third parties through agreements, as explained in the following tables and in Appendix 2.

iv. The CONCESSIONAIRE shall review the existing agreements, pursuant to item 10.1 Supra and formalize new instruments with the municipalities and other bodies and operators where these transpositions are located, if necessary, in order to define the responsibilities for conservation and maintenance, safety, systematic access to services, interference in railways, taxiways, energy networks, signaling and communications, etc. In the event that it is not possible to formalize new agreements (by amending or renewing existing ones), the CONCESSIONAIRE shall assume full responsibility for the maintenance and conservation of the transpositions, by its own means and costs, and there is no right to economic and financial rebalancing, regardless of the result of the renegotiation of existing agreements.

v. Appendix 2 explains the transpositions (railway viaducts, road viaducts, underpass, footbridges and bridges), owned by CPTM and third parties, existing in the complete stretch of the LINES, according to CPTM's updated register.

vi. Those owned by CPTM, especially those listed in the following tables, will be the responsibility of the CONCESSIONAIRE, as to maintenance and conservation. In the event that adjustments are signed by the CONCESSIONAIRE for maintenance and conservation by third parties, the CONCESSIONAIRE must monitor the actions to ensure the integrity of the railroad operation and the property of the CONCESSION AREA.

vii. The maintenance carried out by CPTM on third-party assets without formalization, whose public equipment is of interest to the CONCESSION, will be allocated to the

CONCESSIONAIRE until it is made possible by it and at its exclusive commitment to formalize instruments with the respective owners of the assets.

viii. The CONCESSIONAIRE will also be responsible for monitoring the conservation and maintenance actions of the transposition equipment owned by third parties, whose state of conservation and maintenance poses a risk to the operation of the CONCESSION and its assets, and shall activate, if necessary, the bodies responsible for the maintenance and conservation of these assets, seeking all legal means for such a situation to happen. Such activities do not prevent the hiring of third parties, by the CONCESSIONAIRE, at its own risk, to promote the safety of assets that may in any way pose risks to the operation of the CONCESSION.

ix. The CONCESSIONAIRE shall also observe the Instruments of Permission of Use, Agreements and similar instruments that define responsibilities and rights of transposition of public service concessionaires and respective municipalities, and give the necessary treatment in order to ensure the continuity of the public interest.

10.2.1 Walkways

Table 112 – Listing of existing walkways along the LINES

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-07-0310A	Palmeiras-Barra Funda Station - Airport Exp. Side	Concrete	Active	BFU	7 / 8 / 11	3	10	Av. Auro Soares de Moura Andrade, 664	São Paulo	Lapa	-23.525408°, -46.667462°	CPTM / Metro	Work Plan
PA-07-0310B	Palmeiras-Barra Funda Station - Side Line 7-Ruby	Concrete	Active	BFU	7 / 8 / 11	3	10	Av. Auro Soares de Moura Andrade, 664	São Paulo	Lapa	-23.525408°, -46.667462°	CPTM / Metro	Work Plan
PA-07-0203A	Capistrano de Abreu and Luigi Greco Streets	Concrete	Active	LUZ-BFU	7 / 8 / 11	2	3	R. Luigi Greco / R. Capistrano de Abreu	São Paulo	Sé	-23.527959°, -46.653084°	PMSP	Case 55.689/79 – Law No. 8,919 of 06/04/1979 (18 footbridges)
PA-07-0000A	Luz Station - Direction Brás	Metal	Active	LUZ	7 / 11	0	0	Praça da Luz / R. Mauá	São Paulo	Sé	-23.535282°, -46.634870°	CPTM	N/C
PA-07-0000B	Luz Station - Central	Metal	Active	LUZ	7 / 11	0	0	Praça da Luz / R. Mauá	São Paulo	Sé	-23.535177°, -46.635361°	CPTM	N/C
PA-07-0000C	Luz Station - Direction Barra Funda	Metal	Active	LUZ	7 / 11	0	0	Praça da Luz / R. Mauá	São Paulo	Sé	-23.535070°, -46.635727°	CPTM	N/C
PA-07-0000D	Luz Station - Bom Retiro Exit	Metal	Active	LUZ	7 / 11	0	0	Flat. Central / Praça da Luz	São Paulo	Sé	-23.534938, -46.636176	CPTM	N/C
PA-11-0105A	Passarela Pari	Concrete	Active	LUZ-BAS	11	1	5	Feirinha da Madrugada/Pari Municipal Market	São Paulo	Mooca	-23.538161°, -46.623982°	PMSP	N/C
PA-11-0117A	Rua do Bucolismo (listed)	Metal	Closed	LUZ-BAS	11	1	17	R. do Bucolismo / R. Rodrigues dos Santos	São Paulo	Mooca	-23.540093°, -46.620674°	CPTM	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-11-1001A	Penha Station	Concrete	Active	TAT-ITQ	11	10	1	R. Alvinópolis / Av. Conde de Frontin	São Paulo	Penha	-23.533353°, -46.542964°	Subway	N/C
PA-11-1109A	Metro Vila Matilde	Concrete	Active	TAT-ITQ	11	11	9	R. Alvinópolis / Av. Conde de Frontin	São Paulo	Penha	-23.531727°, -46.530525°	Subway	N/C
PA-11-1219A	Guilhermina-Esperança Subway	Concrete	Active	TAT-ITQ	11	12	19	Av. Antônio E. de Carvalho / R. Vieira Mendes	São Paulo	Penha	-23.529326°, -46.517125°	Subway	N/C
PA-11-1520A	Vila Santa Tereza	Mixed	Active	TAT-ITQ	11	15	20	R. Dr. Luís Aires / Independence Square	São Paulo	Penha	-23.535671°, -46.490807°	PMSP	N/C
PA-11-1627A	Metrô Artur Alvim	Concrete	Active	TAT-ITQ	11	16	27	Av. Dr. Luís Ayres, 1800 (Radial Leste)	São Paulo	Penha	-23.540346°, -46.484021°	Subway	N/C
PA-11-1710A	Corinthians-Itaquera Road Complex	Mixed	Active	TAT-ITQ	11	17	10	R. Boipeva / Conjunto Anchieta (COHAB)	São Paulo	Penha	-23.542434°, -46.479168°	PMSP	N/C
PA-11-1818A	Damião Garcia (former Vila Campanela)	Concrete	Active	ITQ-DOB	11	18	18	R. Guariba at Joapitanga / R. Salim George ID	São Paulo	Itaquera	-23.540911°, -46.464860°	PMSP	Agreement 797/STU - Amended: Law 10,409
PA-11-2020A	Don Bosco Station	Concrete	Active	DOB	11	20	20	R. Sábbado D'Ângelo, 1024	São Paulo	Itaquera	-23.542106°, -46.447970°	CPTM	N/C
PA-11-2216A	José Bonifácio Station	Concrete	Active	JBO	11	22	16	Av. Nagib Farah Maluf, 1500	São Paulo	Itaquera	-23.540074°, -46.431857°	CPTM	N/C
PA-11-2348A	Outside Guaianases station	Mixed	Active	JBO-GUA	11	23	48	R. Salvador Gianetti / R. Copenhague	São Paulo	Guaianases	-23.542242°, -46.416557°	CPTM	Work Plan No. 26 – Addendum, No. 01. Agreement: 822390142600

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-11-2435A	Old Guaianases station	Concrete	Active	CAVE-AGN	11	24	35	R. Capitão Pucci / R. Salvador Gianetti	São Paulo	Guaianases	-23.543440°, -46.410948°	PMSP	Process 55.689/79 - Law No. 8.919 of 06/04/1979E Munic. 9.127/80 - Agreement signed with PMSP and RFFSA (18 footbridges, including the Guaianases footbridge).
PA-11-2451A	Villa Gertrudes	Concrete	Active	CAVE-AGN	11	24	51	Estrada de Poá (R. Clarínia) / R. Professor Cosme Deodato Tadeu	São Paulo	Guaianases	-23.544146°, -46.408827°	PMSP	Process 55.689/79 - Law No. 8.919 of 06/04/1979 (18 footbridges)
PA-11-2514A	Jardim Soares	Concrete	Active	CAVE-AGN	11	25	14	Estrada de Poá (R. Peçanha Falcão) / R. Prof. Cosme Deodato Tadeu	São Paulo	Guaianases	-23.546832°, -46.400333°	PMSP	Agreement 797/STU - Amended: Law 10,409
PA-11-2607A	Vila ABC	Concrete	Active	CAVE-AGN	11	26	7	End of the Poá Road (R. Progresso) / R. Ligima	São Paulo	Guaianases	-23.551025°, -46.395733°	PMSP	Agreement 797/STU - Amended: Law 10,409
PA-11-2625A	ETEC	Concrete	Active	CAVE-AGN	11	26	25	Av. José do Patrocínio / Av. Governor Jânio Quadros	Ferraz de Vasconcelos	-	-23.554814°, -46.391295°	PMFV	Agreement 8557094091
PA-11-2813A	Pato Donald	Concrete	Active	AGN-FVC	11	28	13	R. Pato Donald / R. Pascoal Lobosco	Ferraz de Vasconcelos	-	-23.549980°, -46.379997°	PMFV	Agreement 8557094091
PA-11-2909A	Tanquinho Neighborhood	Concrete	Active	AGN-FVC	11	29	9	Av. Brazil / R. Godofredo Osório Novaes	Ferraz de Vasconcelos	-	-23.544208°, -46.374006°	PMFV	Process No. 038/85 – VI vol.

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
													– Agreement 620/STU
PA-11-2926A	Ferraz de Vasconcelos Station	Mixed	Active	FVC	11	29	26	R. Dodofredo Osório Novais/ R. Verados Diomar Novaes	Ferraz de Vasconcelos	-	-23.541093°, -46.368569°	CPTM	N/C
PA-11-3019A	Vila da Corrêa	Concrete	Active	FVC-POA	11	30	19	R. Lourenço Paganucci / Av. Marginal Zilda Arns	Ferraz de Vasconcelos	-	-23.535507°, -46.361097°	PMFV	Process No. 038/85 – VI vol. – Agreement 620/STU
PA-11-3207A	Vila Sopreter (also known as Vila Perracini)	Metal	Active	FVC-POA	11	32	7	Av. Vicente Leporace / Av. Padre Anchieta	Poá	-	-23.528905°. -46.349746°	PMP	Agreement 869170141600/ 99
PA-11-3301A	Poá Station	Concrete	Active	POA	11	33	1	R. Herculano Duarte Ribas and Av. Brazil	Poá	-	-23.525486°, -46.343816°	CPTM	Law No. 1613/81 - Term of Agreement
PA-11-3317A	Do Triângulo	Concrete	Active	POA-CVN	11	33	17	Av. Brazil / R. Herculano Duarte Ribas	Poá	-	-23.523765°, -46.337677°	PMP	Process No. 038/85 VI vol. - Agreement 619/STU
PA-11-3505A	Vila Lucia	Concrete	Active	CVN-SUZ	11	35	5	Av. Brasil / Av. Paul Percy Harris	Suzano	-	-23.528674°, -46.323632°	PMS	Agreement 1611/STU Process 38/85 - XIV Vol.
PA-11-3701A	Suzano Station	Metal	Active	SUZ	11	37	1	R. Prudente de Moraes / R. Major Pinheiro Froes	Suzano	-	-23.534258°, -46.307184°	CPTM	N/C
PA-11-3905A	Hoechst	Concrete	Active	SUZ-JPB	11	39	5	R. José Pereira / Av. Jorge Bei Maluf	Suzano	-	-23.534621°, -46.285671°	CPTM	N/C
PA-11-4227A	Jundiapeba Station	Metal	Active	JPB	11	42	27	Station: R. Aurea Martins dos Anjos, s/nº	Mogi das Cruzes	-	-23.542832°, -46.257665°	CPTM	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-11-4514A	Braz Cubas Station	Metal	Active	BCB	11	45	14	Av. Almiranda Viela Ferreira / Av. Anchieta	Mogi das Cruzes	-	-23.536209°, -46.224934°	CPTM	N/C
PA-11-4904A	Mogi das Cruzes Station	Concrete	Closed	MDC	11	49	7	Station: Praça Sacadura Cabral, s/nº	Mogi das Cruzes	-	-23.521756°, -46.198021°	CPTM	N/C
PA-11-4925A	Councilman Bento Antônio de Oliveira (former Maktub Supermarket)	Concrete	Active	MOC-EST	11	49	25	R. Tenente Alcides Machado / R. Padre João	Mogi das Cruzes	-	-23.519016°, -46.192307°	PMMC	Process 038/85 - II Vol. - Agreement 0731/STU
PA-11-5014A	External of the station Estudantes	Concrete	Active	EAST	11	50	14	R. Professor Álvaro Pavan / R. Nove de Julho	Mogi das Cruzes	-	-23.515367°, -46.184128°	CPTM	N/C
PA-12-0312A	Bresser / Mooca Subway	Concrete	Active	BAS-TAT	12 / 11	3	12	R. Ipanema / Bresser Bus Terminal	São Paulo	Mooca	-23.546119°, -46.607117°	Subway	TP - C 1625 (N/C)
PA-12-0503A	Belém Metro	Concrete	Active	BAS-TAT	12 / 11	5	3	R. Toledo Barbosa / Av. Alcântara Machado	São Paulo	Mooca	-23.542683°, -46.589696°	Subway	TP - C 1625 (N/C)
PA-12-0714A	Carrão Subway	Concrete	Active	TAT-EGO	12 / 11	7	14	R. Melo Peixoto / R. Melo Freio	São Paulo	Mooca	-23.537696°, -46.564773°	Subway	TP - C 1625 (N/C)
PA-12-1012A	Clube Esportivo da Penha	Mixed	Active	TAT-EGO	12	10	12	R. Cap. João Cesário / Av. Armando Cardoso Alves	São Paulo	Penha	-23.522412°, -46.551873°	Private - Penha Sports Club	N/C
PA-12-1022A	Cingapura	Concrete	Active	TAT-EGO	12	10	22	R. Henrique Souza Queirós / R. Natal Basile	São Paulo	Penha	-23.519854°, -46.550796°	PMSP	TSA/019/98 Case No. 848860156 - Vol. II
PA-12-1101A	CEU Tiquatira	Concrete	Active	TAT-EGO	12	11	1	R. Rinópolis / R. Kampala	São Paulo	Penha	-23.516512°, -46.550756°	CPTM	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-12-1207A	Vila Santo Henrique	Concrete	Active	TAT-EGO	12	12	7	Av. Dr. Assis Ribeiro 382 / R. Porto Artaza	São Paulo	Penha	-23.509089°, -46.547566°	PMSP	Process 038/85 – IX vol.
PA-12-1225A	Jardim Otília	Concrete	Active	TAT-EGO	12	12	25	Av. Dr. Assis Ribeiro 800 / Travessa do Atleta	São Paulo	Penha	-23.508641°, -46.543742°	PMSP	Process 038/85 – IX vol.
PA-12-1413A	Vila Hilda	Concrete	Active	TAT-EGO	12	14	13	Av. Dr. Assis Ribeiro 2700 / R. Olga Artacho	São Paulo	Penha	-23.499621°, -46.529361°	PMSP	Process 55.689/79 Law No. 8.919 of 06/04/1979 (18 footbridges)
PA-12-1513A	Eng. Goulart Station - Avenida Dr. Assis Ribeiro	Concrete	Active	EGO	12 / 13	15	13	Av. Assis Ribeiro, 3500	São Paulo	Penha	-23.498678°, -46.520378°	CPTM	N/C
PA-12-1513B	Eng. Goulart Station - Ecological Park	Concrete	Active	EGO	12 / 13	15	13	Ecological Park Highway	São Paulo	Penha	-23.497965°, -46.520607°	CPTM	N/C
PA-12-1517A	Eng. Goulart Station - Access to the Reservoir	Concrete	Active	EGO	12 / 13	15	17	Av. Assis Ribeiro, 3500	São Paulo	Penha	-23.498096°, -46.519369°	CPTM	N/C
PA-12-1720A	USP Leste Station	Concrete	Active	USL	12	17	20	Station: Av. Dr. Assis Ribeiro, 6081	São Paulo	Ermelino Matarazo	-23.485496°, -46.501751°	CPTM	CPTM / EACH-USP 851674309100 de 07/07/2008
PA-12-1815A	Owens Illinois (antiga Cisper)	Concrete	Active	USL-ERM	12	18	15	Av. Dr. Assis Ribeiro, 7000 / R. Arlindo Béttio	São Paulo	Ermelino Matarazo	-23.483988°, -46.495848°	PMSP	Process 55.689/79 - Law No. 8.919 of 06/04/1979 (18 footbridges)
PA-12-1917A	Bann Química	Concrete	Active	USL-ERM	12	19	10	Av. Dr. Assis Ribeiro, 7984 / R. Arlindo Béttio	São Paulo	Ermelino Matarazo	-23.484925°, -46.487553°	PMSP	Case 038/85 2nd Part. Agreement:

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
													800/STU 12/01/88
PA-12-2002A	Comendador Ermelino Station - Access to the operational area	Concrete	Active	ERM	12	20	2	Av. Dr. Assis Ribeiro 8,454	São Paulo	Ermelino Matarazo	-23.48527°, -46.48232°	CPTM	N/C
PA-12-2003A	Comendador Ermelino Station	Concrete	Active	ERM	12	20	2	Station: Av. Dr. Assis Ribeiro, 8454	São Paulo	Ermelino Matarazo	-23.485235°, -46.482350°	CPTM	Prior to the reform, it was from Process 55.689/79 Law No. 8.919 of 06/04/1979 (18 footbridges). It is currently CPTM.
PA-12-2404A	São Miguel Paulista	Concrete	Active	ERM-SMP	12	24	4	R. Angelina Lapena Parente / R. Rafael Zimbardi	São Paulo	São Miguel Paulista	-23.490649°, -46.447953°	PMSP	Case 038/85 2nd Part. Agreement: 800/STU 12/01/88
PA-12-2412A	São Miguel Paulista Station	Metal	Active	SMP	12	24	12	R. Beraldo Marcondes	São Paulo	São Miguel Paulista	-23.490307°, -46.444477°	CPTM	N/C
PA-12-2414A	São Miguel Paulista Station - Access to the operational area	Metal	Active	SMP	12	24	14	R. Beraldo Marcondes	São Paulo	São Miguel Paulista	-23.490303°, -46.444424°	CPTM	N/C
PA-12-2521A	Jardim Helena - Rua Imeri	Concrete	Active	SMP-JHE	12	25	21	R. Imeri / R. Pedroso da Silva	São Paulo	São Miguel Paulista	-23.491644°, -46.432067°	PMSP	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-12-2603A	Pq. Paulistano - Rua Santa Rosa de Lima	Concrete	Active	SMP-JHE	12	26	3	R. Dario F. Martins / R. Santa Davina	São Paulo	São Miguel Paulista	-23.491923°, -46.429107°	PMSP	N/C
PA-12-2620A	Jardim Helena-Vila Mara Station - Access to the operational area	Metal	Active	JHE	12	26	20	Station: R. São Gonçalo Rio das Pedras, 1200	São Paulo	São Miguel Paulista	-23.492562°, -46.421202°	CPTM	N/C
PA-12-2621A	Jardim Helena-Vila Mara Station	Concrete	Active	JHE	12	26	21	R. São Gonçalo do Rio das Pedras / Av. Marshal Tito	São Paulo	São Miguel Paulista	-23.492793°, -46.420779°	CPTM	N/C
PA-12-2720A	Jardim Fluminense	Concrete	Active	JHE-ITI	12	27	20	R. Dr. Gil Martins / Av. Evening Star	São Paulo	São Miguel Paulista	-23.493591°, -46.412377°	PMSP	Process 55.689/79 - Law No. 8.919 of 06/04/1979 (18 footbridges)
PA-12-2813A	Jardim Helena - Rua Pedro de Rosa Abreu	Concrete	Active	JHE-ITI	12	28	13	R. Pedro R.de Abreu / R. Cordão de São Francisco	São Paulo	São Miguel Paulista	-23.494140°, -46.406772°	CPTM	N/C
PA-12-2821A	Itaim Paulista Station	Concrete	Active	ITI	12	28	21	Station: R. Rafael Correia da Silva, 13	São Paulo	São Miguel Paulista	-23.494231°, -46.402559°	CPTM	N/C
PA-12-2913A	Aimoré Garden (Maué Mirim Square)	Concrete	Active	ITI-JRO	12	29	13	R. Raimundo M. Figueiredo / Pça. Maué-Mirim	São Paulo	São Miguel Paulista	-23.493436°, -46.396395°	PMSP	N/C
PA-12-2921A	São Luís Garden	Concrete	Active	ITI-JRO	12	29	21	R. Manoel Martins de Melo	São Paulo	São Miguel Paulista	-23.491189°, -46.393825°	PMSP	Process 55.689/79 - Law No. 8.919 of 06/04/1979 (18 footbridges)
PA-12-3009A	Jardim Margarida	Concrete	Active	ITI-JRO	12	30	9	R. Manoel Duarte Ferro	São Paulo	São Miguel Paulista	-23.487441°, -46.390180°	PMSP	Search

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-12-3015A	Jardim Romano I - João Carlos Amat Street	Concrete	Active	ITI-JRO	12	30	15	R. João Carlos Amat / Av. Diogo da Costa Tavares	São Paulo	São Miguel Paulista	-23.485972°, -46.387621°	CPTM	N/C
PA-12-3018A	Jardim Romano Station	Mixed	Active	JRO	12	30	18	Station: R. José Álvares Moreira, 349	São Paulo	São Miguel Paulista	-23.485002, -46.385483	CPTM	N/C
PA-12-3020A	Jardim Romano Station - Access to the operational area	Metal	Active	JRO	12	30	20	Station: R. José Álvares Moreira, 349	São Paulo	São Miguel Paulista	-23.485130°, -46.386007°	CPTM	N/C
PA-12-3112A	Jardim Romano II - Guajiru Street	Concrete	Active	JRO-EMF	12	31	12	R. Guajiru / Av. Diogo da Costa Tavares	São Paulo	São Miguel Paulista	-23.482203°, -46.380121°	CPTM	N/C
PA-12-3249A	Jardim da Estação (external walkway of the Eng. Manoel Feio station)	Concrete	Active	EMF	12	32	49	R. Araçatuba / Estrada Walter da Silva Costa	Itaquaquecetuba	-	-23.479194°, -46.368216°	CPTM	N/C
PA-12-3249B	Eng. Manoel Feio Station	Metal	Active	EMF	12	32	49	Station: Av. Eldorado, s/nº - Eng. Manoel Feio	Itaquaquecetuba	-	-23.479384°, -46.368119°	CPTM	N/C
PA-12-3316A	Vila Esperança	Concrete	Active	EMF-IQC	12	33	16	R. Ver. Benedito M. Ribeiro / R. Joaquim M. Diogo	Itaquaquecetuba	-	-23.478729°, -46.360979°	PMI	Agreement 8730094091
PA-12-3521A	Avenida Brasil	Concrete	Active	IQC-ARC	12	35	21	Av. Brazil / R. Quinze de Novembro	Itaquaquecetuba	-	-23.488324°, -46.344024°	PMI	Agreement 8730094091

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-12-3624A	Downtown - Nazaré Paulista Street	Metal	Active	IQC-ARC	12	36	24	R. Vinte e Nove de Junho / R. Nazaré Pta.	Itaquaquecetuba	-	-23.489751°, -46.336026°	PMI	CPTM/PMI 818474309100
PA-12-3738A	Aracaré Station	Metal	Active	ARC	12	37	38	R. Rio de Janeiro / Av. Pres. Tancredo Neves	Itaquaquecetuba	-	-23.500545°, -46.339096°	CPTM	N/C
PA-12-3816A	Vila Miranda	Concrete	Active	ARC-CVN	12	38	16	Av. Marginal Variante / R. Calil Haddad	Poá	-	-23.507667°, -46.337728°	PMP	Agreement 8521094091 - Work Plan No. 01 CTPM x Poá
PA-12-3908A	Vila Jaú	Concrete	Active	ARC-CVN	12	39	8	Av. Marginal Variante	Poá	-	-23.512492°, -46.338189°	DER-SP	Case 047/PGP/2000 - TSA/024/2000
PA-12-3919A	Residencial Alvorada - Rua Peruíbe	Concrete	Active	ARC-CVN	12	39	19	R. Joyer de Godoi/r. Peruibe	Poá	-	-23.516775°, -46.338554°	PMP	Agreement 610/STU - Process 038/85
PA-12-4016A	Residencial Alvorada - Rua Ibar	Concrete	Active	ARC-CVN	12	40	16	R. Herculano Duarte Ribus/r. Eber.	Poá	-	-23.523229°, -46.335466°	PMP	Agreement 8521094091 - Work Plan No. 01 CTPM x Poá
PA-12-4101A	External Calmon Viana station	Concrete	Active	ARC-CVN	12 / 11	41	1	Av. Brazil / R. Ibar	Poá	-	-23.525124°, -46.333550°	PMP	Law No. 1613/81 - Term of Agreement
PA-12-4102A	Calmon Viana Station	Metal	Active	CVN	12 / 11	41	2	Station: Av. Brazil, s/nº	Poá	-	-23.525377°, -46.333006°	CPTM	N/C
PA-13-2216A	Guarulhos Cecap Station	Concrete	Active	GCE	13	22	16	Access 1: Bike rack. Access 2: EMTU corridor stop	Guarulhos	-	-23.448050°, -46.494142°	CPTM	N/C
PA-13-2408A	Guarulhos Airport Station - Guarulhos Access	Concrete	Active	AGU	13	24	8	R. Joaquina de Jesus	Guarulhos	-	-23.432552°, -46.494516°	CPTM	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Station or Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PA-13-2408B	Guarulhos Airport Station - Airport Access	Concrete	Active	AGU	13	24	8	A. Internal of Guarulhos International Airport	Guarulhos	-	-23.432547°, -46.493315°	CPTM	N/C

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

10.2.2 Underpasses

Table 113 – Listing of existing underpasses along the LINES

ID CPTM	Type	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PI-07-0000A	Pedestrian	Luz Station - Corridor connecting with subway (Blue and Yellow Line)	Concrete	Active	LIGHT	7 / 11	0	0	Praça da Luz / R. Mauá	São Paulo	Se	-23.535512°,-46.634051°	CPTM / Metro	N/C
PI-07-0000B	Pedestrian	Luz Station - Saguão I	Concrete	Active	LIGHT	7 / 11	0	0	Praça da Luz / R. Mauá	São Paulo	Se	-23.535327°,-46.634722°	CPTM	N/C
PI-07-0000C	Pedestrian	Luz Station - Saguão II	Concrete	Active	LIGHT	7 / 11	0	0	Praça da Luz / R. Mauá	São Paulo	Se	-23.535274°,-46.635575°	CPTM	N/C
PI-11-1411A	Pedestrian	Patriarca Subway Station	Concrete	Active	TAT-ITQ	11	14	13	R. Dr. Luís Ayres	São Paulo	Penha	-23.531077°,-46.501578°	Subway	N/C
PI-11-1624A	Vehicle	Av. Águia de Haia (Near. Artur Alvim Station)	Concrete	Active	TAT-ITQ	11	16	24	Av. Águia de Haia	São Paulo	Penha	-23.539828°,-46.484854°	PMSP	N/C
PI-11-1815A	Vehicle	Journalist Odon Pereira Tunnel	Concrete	Active	ITQ-DOB	11	18	15	R. Dr. Luís Ayres / Av. José Pinheiro Borges	São Paulo	Itaquera	-23.541154°,-46.465567°	PMSP	N/C

ID CPTM	Type	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PI-11-2310A	Pedestrian	CEU Jambeiro	Concrete	Active	JBO-GUA	11	23	10	Av. José Pinheiro Borges / R. Salvador Gianetti	São Paulo	Guaianases	-23.540365°,-46.421693°	CPTM	N/C
PI-11-2350A	Pedestrian	Guaianases Station	Concrete	Active	CAVE	11	23	50	R. Copenhague / R. Salvador Gianetti	São Paulo	Guaianases	-23.542269°,-46.416030°	CPTM	N/C
PI-11-2827A	Pedestrian	Caetano Rúbio Street	concrete	Active	AGN-FVC	11	28	25	Av. Gov. Jânio Quadros x R. Godofredo O. Neves	Ferraz de Vasconcelos	-	-23.546998°,-46.377594°	CPTM	N/C
PI-11-3217A	Pedestrian	Poá Station - Antonio Mantarano	Concrete	Active	POA	11	33	1	R. Jorge Francisco Corrêa Allen / Av. Padre Anchieta	Poá	-	-23.525799°,-46.344319°	PMP	TPU 045/STU/92
PI-11-4909A	Vehicle	Tirreno Road Complex of San Biagio - Tunnel 1	Concrete	Active	MDC	11	49	9	Cabo Diogo Oliver Street	Mogi das Cruzes	-	-23.521017°,-46.196768°	PMMDC	N/C
PI-11-4911A	Vehicle	Tirreno Road Complex of San Biagio - Tunnel 2	Concrete	Active	MDC	11	49	11	Henrique Eroles Highway – SP-066	Mogi das Cruzes	-	-23.520960°,-46.196652°	PMMDC	N/C
PI-11-5014A	Pedestrian	Estudantes Station	Concrete	Active	EAST	11	50	14	Station: R. Álvaro Pavan, s/nº	Mogi das Cruzes	-	-23.515338°,-46.183994°	CPTM	N/C
PI-12-1112A	Vehicle	Engenheiro Trindade	Concrete	Active	TAT-EGO	12	11	12	R. Vasuka / R. Two Tunnel	São Paulo	Penha	-23.513759°,-46.552066°	CPTM	N/C
PI-12-2203A	Pedestrian	Vila Nova União (Rio do Ouro Stream)	Concrete	Disabled	ERM-SMP	12	22	3	R. Papyrus of Egypt	São Paulo	São Miguel Paulista	-23.486283°,-46.464582°	CPTM	N/C
PI-12-2208A	Pedestrian	Vila Nova União - Favela do Pantanal	Concrete	Active	ERM-SMP	12	22	8	R. Ventura Branco / Rua Papiro do Egito	São Paulo	São Miguel Paulista	-23.487479°,-46.463858°	CPTM	N/C
PI-12-2315A	Pedestrian	Jardim Nair	Concrete	Active	ERM-SMP	12	23	15	R. Eng. José Cruz de Oliveira / R. Papiro do Egito	São Paulo	São Miguel Paulista	-23.492026°,-46.454066°	CPTM	N/C

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

10.2.3 Level crossings

Table 114 – List of existing level crossings along the LINES

ID CPTM	TYPE	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PN-11-4214A	Pedestrians	Jundiapeba Station	Wood	Active	JPB	11	42	14	R. Áurea Martins dos Anjos, s/nº	Mogi das Cruzes	-	-23.542517°,-46.259709°	CPTM	N/C
PN-11-4228A	Pedestrians and vehicles	Jundiapeba	Asphalt	Active	JPB-BCB	11	42	28	R. Adriana Pereira / R. Guilherme George	Mogi das Cruzes	-	-23.542940°,-46.257020°	CPTM	N/C
PN-11-4508A	Pedestrians	Vila Paulista da Estação	Wood	Active	JPB-BCB	11	45	8	Av. Anchieta alt. do nº 799 / Av. Almerinda V. Ferreira	Mogi das Cruzes	-	-23.537376°,-46.228884°	CPTM	N/C
-	Pedestrians	Braz Cubas Station	Wood	Active	BCB	11	45	-	Av. Almiranda Viela Ferreira / Av. Anchieta	Mogi das Cruzes	-	-23.535975°,-46.224234°	CPTM	N/C
PN-11-4611A	Pedestrians and vehicles	Caravels	Asphalt	Active	BCB-MDC	11	46	11	R. Caravelas / Av. Anchieta	Mogi das Cruzes	-	-23.534139°,-46.218517°	CPTM / PMMC	TPU/0578/STU
PN-11-4809A	Pedestrians and vehicles	Gentleman Nami Jafet	Asphalt	Active	BCB-MDC	11	48	9	R. Cavalheiro N. Jafet / Av. Gov. Adhemar de Barros	Mogi das Cruzes	-	-23.525116°,-46.204855°	PMMC	Agreement 1073/STU
PN-11-4826A	Pedestrians and vehicles	Campos Rooms	Asphalt	Active	BCB-MDC	11	48	26	R. President Campos Salles	Mogi das Cruzes	-	-23.523032°,-46.201149°	CPTM / PMMC	N/C
PN-11-4910A	Pedestrians	Mogi das Cruzes Station	Wood	Active	MDC	11	49	10	Station: Praça Sacadura do Cabral, s/nº	Mogi das Cruzes	-	-23.521052°,-46.196815°	CPTM	N/C
PN-11-4911A	Pedestrians	Cabo Diogo Oliver	Asphalt	Active	MOC-EST	11	49	11	R. Cabo Diogo Oliver	Mogi das Cruzes	-	-23.520984°,-46.196699°	CPTM / PMMC	N/C

ID CPTM	TYPE	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PN-11-4915A	Pedestrians	Deodato Wertheimer	Asphalt	Active	MOC-EST	11	49	15	R. Dr. Deodato Wertheimer	Mogi das Cruzes	-	-23.520379°,-46.195296°	CPTM / PMMC	N/C
PN-11-5014A	Pedestrians	Estudantes Station	Concrete / Wood	Active	EST	11	50	14	R. Álvaro Pavan, s/nº	Mogi das Cruzes	-	-23.515310°,-46.183854°	CPTM	Agreement 007/1995

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

10.2.4 Road viaducts

Table 115 – List of road viaducts that cross the LINES

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VR-07-0001a	General Couto Magalhães I	Mixed	Active	LIGHT-BFU	7 / 11	0	1	R. Jose Paulino/R. Mawa	São Paulo	Se	-23.534795°, -46.636873°	CPTM	Official Letter 064/works. G/97
VR-07-0001B	General Couto Magalhães II	Concrete	Active	LIGHT-BFU	7 / 11	0	1	R. Jose Paulino/R. Mawa	São Paulo	Sé	-23.534759°, -46.637058°	PMSP	Official Letter 064/works. G/97
VR-07-0122a	Eng. Orlando Murgel	Concrete	Active	LUZ-BFU	7 / 8 / 11	1	22	Av. Rudge / By. Rio Branco	São Paulo	Sé	-23.527787°, -46.648192°	PMSP	Agreement 949
VR-07-0222a	Pacaembu (Dr. Demerval Gonçalves)	Concrete	Active	LUZ-BFU	7 / 8 / 11	2	22	Av. Dr. Abraão Ribeiro / Av. Pacaembu	São Paulo	Sé	-23.525958°, -46.660565°	PMSP	N/C
VR-07-0326a	Antártica (Oberdan Cattani)	Concrete	Active	LUZ-BFU	7 / 8 / 11	4	1	Av. Ordem e Progresso / Av. Antarctica	São Paulo	Lapa	-23.525109°, -46.671162°	PMSP	Agreement 992
VR-11-0001a	Brigadier Tobias	Mixed	Active	LIGHT-BAS	11	0	1	R. Brigadier Tobias	São Paulo	Sé	-23.535512°, -46.633900°	CPTM	Official Letter 064/works. G/97

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VR-11-0001B	Eng. Romero Zander	Concrete	Active	LIGHT-BAS	11	0	1	Av. Prestes Maia / Av. Tiradentes	São Paulo	Sé	-23.535626°, -46.633594°	PMSP	Official Letter 064/works. G/97
VR-11-0001C	Prestes Maia / Tiradentes	Concrete	Active	LIGHT-BAS	11	0	1	R. Florêncio de Abreu / Av. Tiradentes	São Paulo	Sé	-23.535744°, -46.633156°	PMSP	Official Letter 064/works. G/97; C-937 (N/C)
VR-11-0201a	Gasometer	Concrete	Active	LIGHT-BAS	11	2	1	R. do Gasômetro / Largo da Concórdia	São Paulo	Mooca	-23.543104°, -46.618105°	PMSP	N/C
VR-11-0204A	Maestro Alberto Marino	Concrete	Active	LIGHT-BAS	11	2	4	Av. Rangel Pestana	São Paulo	Mooca	-23.543607°, -46.617731°	PMSP	N/C
VR-11-0910A	Ing. Alberto Badra	Concrete	Active	TAT-ITQ	11	9	14	Av. Aricanduva / Ponte Aricanduva	São Paulo	Penha	-23.534595°, -46.548410°	PMSP	TAC PMSP MPSP Bridges and viaducts 2007
VR-11-0911A	Handle of the Eng. Alberto Badra viaduct	Concrete	Active	TAT-ITQ	11	9	16	Av. Conde de Frontim / Ponte Aricanduva	São Paulo	Penha	-23.534513°, -46.547908°	PMSP	TAC PMSP MPSP Bridges and viaducts 2007
VR-11-1005A	Carlos de Campos	Concrete	Active	TAT-ITQ	11	10	10	R. Alvinópolis / Av. Conde de Frontin	São Paulo	Penha	-23.532958°, -46.540454°	PMSP	N/C
VR-11-1117A	Dona Matilde	Concrete	Active	TAT-ITQ	11	11	21	R. Joaquim Marra / R. Maria Carlota	São Paulo	Penha	-23.531876°, -46.527594°	PMSP	N/C
VR-11-1513A	Itinguçu - Francisco Faria de Souza	Concrete	Active	TAT-ITQ	11	15	14	Paraguaçu Paulista Avenue / Itinguçu Street	São Paulo	Penha	-23.535352°, -46.493787°	PMSP	N/C
VR-11-1711A	Complexo Viário Arieta Calfat Khoury Farah 1	Concrete	Active	TAT-ITQ	11	17	12	Over Av. Dr. Luís Ayres (Radial Leste)	São Paulo	Penha	-23.542480°, -46.478775°	PMSP	N/C
VR-11-1712A	Complexo Viário Arieta Calfat Khoury Farah 2	Concrete	Active	TAT-ITQ	11	17	13	OverAv. Dr. Luís Ayres (Radial Leste)	São Paulo	Penha	-23.542533°, -46.478358°	PMSP	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VR-11-1713A	Complexo Viário Arieta Calfat Khoury Farah 3	Concrete	Active	TAT-ITQ	11	17	13	OverAv. Dr. Luís Ayres (Radial Leste)	São Paulo	Penha	-23.542514°, -46.478103°	PMSP	N/C
VR-11-1714A	Complexo Viário Arieta Calfat Khoury Farah 4	Concrete	Active	TAT-ITQ	11	17	14	OverAv. Dr. Luís Ayres (Radial Leste)	São Paulo	Penha	-23.542762°, -46.477905°	PMSP	N/C
VR-11-2439A	Dep. Antônio Sylvio Cunha Bueno	Concrete	Active	CAVE-AGN	11	24	39	R. Saturnino Pereira / R. Capitão Pucci	São Paulo	Guaianases	-23.543658°, -46.410631°	PMSP	N/C
VR-11-2717A	João Batista Camilo Neto	Concrete	Active	CAVE-AGN	11	27	17	R. Leonor B. de Carvalho / Av. Gov. Jânio Quadros	Ferraz de Vasconcelos	-	-23.554464°, -46.384261°	PMFV	N/C
VR-11-3009A	Ayrton Senna	Concrete	Active	AGN-FVC	11	30	9	Av. Santos Dumont / R. Emílio Ribas	Ferraz de Vasconcelos	-	-23.538391°, -46.365044°	PMFV	N/C
VR-11-3305A	Tancredo de Almeida Neves	Concrete	Active	POA-CVN	11	33	5	Av. Leonor Bolsoni Marques da Silva	Poá	-	-23.524283°, -46.341699°	PMP	0318/STU
VR-11-3416A	Mário Covas Beltway - SP-021 - East - South Section	Concrete	Active	CVN-SUZ	11	34	16	Reference: Between Calmon Viana and Suzano Stations – Suzano – SP	Suzano	-	-23.527012°, -46.328505°	DER-SP	SPMAR
VR-11-3516B	Mário Covas Beltway - SP-021 - East - North Section	Concrete	Active	CVN-SUZ	11	34	16	Reference: Between Calmon Viana and Suzano Stations – Suzano – SP	Suzano	-	-23.527074°, -46.328287°	DER-SP	SPMAR
VR-11-3604A	Ryu Mizuno	Concrete	Active	CVN-SUZ	11	36	4	R. Major Pinheiro Froes / R. Prudente de Moraes	Suzano	-	-23.531565°, -46.315198°	PMS	TPES 0090/STU
VR-11-3707A	Leon Feffer	Mixed	Active	SUZ-JPB	11	37	7	Av. Coronel Souza Franco / Av. Ribeirão da Virgem	Suzano	-	-23.535114°, -46.305119°	PMS	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VR-11-4605A	Professor Argeu Batalha	Concrete	Active	BCB-MDC	11	46	5	Av. Henrique Peres / Av. Almerinda Vilela Ferreira	Mogi das Cruzes	-	-23.534980°, -46.221070°	PMMC	FD 024/2002
VR-12-0312A	Bresser - Romualdo Hatty	Concrete	Active	BAS-TAT	12 / 11	3	12	Avenida Bresser / Rua Taquari	São Paulo	Mooca	-23.545711°, -46.604624°	PMSP	N/C
VR-12-0415A	Guadalajara - João Behisnelian	Concrete	Active	BAS-TAT	12 / 11	4	15	R. Belém / R. Siqueira Bueno	São Paulo	Mooca	-23.543538°, -46.593792°	PMSP	N/C
VR-12-0701A	Carlos Ferraci	Concrete	Active	TAT-EGO	12 / 11	7	1	Av. Azevedo / R. Simas Pimenta	São Paulo	Mooca	-23.539028°, -46.571505°	PMSP	N/C
VR-12-0808A	Handle of the Antônio Abdo Viaduct (Cons. Carrão)	Concrete	Active	TAT-EGO	12 / 11	8	8	R. Melo Freire / R. Antônio de Barros	São Paulo	Mooca	-23.536381°, -46.558125°	PMSP	TAC PMSP Public Prosecutor's Office 2007; TPU DO/024/2014 (N/C)
VR-12-0808B	Antônio Abdo (Cons. Carrão)	Concrete	Active	TAT-EGO	12 / 11	8	8	Conselheiro Carrão / Rua Antônio de Barros	São Paulo	Mooca	-23.536369°, -46.557785°	PMSP	TAC PMSP Public Prosecutor's Office 2007; TPU DO/024/2014 (N/C)
VR-12-0912A	Ing. Alberto Badra	Concrete	Active	TAT-EGO	12	9	12	Ponte Aricanduva / Av. Aricanduva	São Paulo	Penha	-23.530206°, -46.553365°	PMSP	TAC PMSP MPSP Bridges and viaducts 2007
VR-12-1105A	General Milton Tavares de Souza	Concrete	Active	TAT-EGO	12	11	5	Av. Gov. Carvalho Pinto / Marg.Tietê - Ayrton Senna	São Paulo	Penha	-23.515545°, -46.550962°	PMSP	SMP-4/PMP/SP/PDD/0173
VR-12-2106A	Rua Japichauá	Concrete	Active	ERM-SMP	12	21	6	R. Japichauá x Av. Dr. Assis Ribeiro, height of nº 8864	São Paulo	Ermelino Matarazo	-23.482615°, -46.471786°	PMSP	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VR-12-2214A	Engenheiro Luiz Alfredo Falcão Bauer (Vila Jacuí on Google Maps)	Concrete	Active	ERM-SMP	12	22	14	Av. Dr. Assis Ribeiro (Amendment No. 10.170) / Vl. Nova União / Jacuí	São Paulo	São Miguel Paulista	-23.489113°, -46.463388°	PMSP	N/C
VR-12-2317A	Jacu-Pêssego Sul I Road Complex	Concrete	Active	ERM-SMP	12	23	17	Access to Ayrton Senna da Silva Highway	São Paulo	São Miguel Paulista	-23.491732°, -46.452800°	DER-SP	N/C
VR-12-2318A	Jacu-Pêssego Norte II Road Complex	Concrete	Active	ERM-SMP	12	23	18	Av. Jacu-Peach / New Workers / Access Ragueb Chohfi	São Paulo	São Miguel Paulista	-23.491710°, -46.452613°	DER-SP	N/C
VR-12-2501A	Av. Dr. José Artur Nova (Nitro Química)	Concrete	Active	SMP-JHE	12	25	1	R. Arlindo Colaço / Av. Dr. José Artur Nova	São Paulo	São Miguel Paulista	-23.490833°, -46.439778°	PMSP	N/C
VR-12-2713A	- Rosita Macedo de Andrade (China Viaduct)	Concrete	Active	JHE-ITI	12	27	13	Av. Marechal Tito and Vd. Rosita Macedo de Andrade/ Av. Prof. Alípio de Barros	São Paulo	São Miguel Paulista	-23.493239°, -46.415466°	PMSP	Case No. 032/86 - No. 886/STU
VR-12-2929A	Carlito Maia	Concrete	Active	ITI-JRO	12	29	29	Av. Itaim / R. Cachoeira Manganal	São Paulo	São Miguel Paulista	-23.490449°, -46.393125°	PMSP	TPU_DG/024/2016
VR-12-3325A	Rua Duque de Caxias	Concrete	Active	EMF-IQC	12	33	25	- R. Duke of Caxias / R. Altinopolis	Itaquaquecetuba	-	-23.479329°, -46.357496°	PMI	N/C
VR-12-3411A	Av. Emancipação	Concrete	Active	EMF-IQC	12	34	11	R. João Barbosa de Moraes / Av. Emancipation	Itaquaquecetuba	-	-23.480138°, -46.353107°	PMI	390/STU
VR-12-3414A	Pastor Mário Maria Duarte	Concrete	Active	EMF-IQC	12	34	14	Rod. Alberto Hinoto / Estrada Santa Isabel	Itaquaquecetuba	-	-23.480403°, -46.352534°	PMI	N/C
VR-12-3907A	Highway São Paulo - Rio	Concrete	Active	ARC-CVN	12	39	7	São Paulo – Rio Highway	Poá	-	-23.512157°, -46.338121°	DER-SP	Agreement: 081/STU/92

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

10.2.5 Road bridges

Table 116 – List of existing road bridges along the LINES

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Line	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PR-12-1107A	Domingos Franciulli Netto	Concrete	Active	TAT-EGO	12	11	7	Av. Gov. Carvalho Pinto / Marginal Tietê (Sent. Lapa)	São Paulo	Penha	-23.515050°, -46.551240°	PMSP	N/C
PR-12-2115A	Av. Santos Dumont (Cumbica)	Concrete	Active	ERM-SMP	12	21	15	Av. Dr. Assis Ribeiro, height of nº 9700	São Paulo	Ermelino Matarazo	-23.482749°, -46.470017°	PMSP	N/C

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

10.2.6 Railway viaducts

Table 117 – List of existing railway viaducts along the LINES

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VF-07-0027A	Alameda Nothmann	Metal	Active	LIGHT-BFU	7 / 11	0	27	Alameda Nothmann	São Paulo	Se	-23.529997°, -46.642189°	CPTM	N/C
VF-11-0019A	OverRua da Cantareira	Concrete	Active	LUZ-BAS	11	0	19	R. da Cantareira x R. Mauá	São Paulo	Se	-23.537061°, -46.628129°	CPTM	N/C
VF-11-1723A	Transpetro Duct - V1 (Luz Direction)	Concrete	Active	TAT-ITQ	11	17	24	Overlap: Transpetro pipeline. Ref. Rua do Contorno	São Paulo	Penha	-23.542583°, -46.474037°	CPTM	Work Plan. No. 26 – Addendum, No. 01. Agreement: 822390142600 (Request formalization)

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VF-11-1723B	Transpetro Pipeline - V2 (Towards Estudantes)	Concrete	Active	TAT-ITQ	11	17	24	Overlap: Transpetro pipeline. Ref. Rua do Contorno	São Paulo	Penha	-23.542460°, -46.474037°	CPTM	Work Plan. No. 26 – Addendum, No. 01. Agreement: 822390142600 (Request formalization)
VF-11-1726A	Corinthians-Itaquera Station (17-26/18-04) V1 (Estudantes)	Concrete	Active	TAT-ITQ	11	17	26	Over Rua Eng. Sidney Aparecido de Moraes	São Paulo	Itaquera	-23.542392°, -46.472921°	CPTM	Work Plan. No. 26 – Addendum, No. 01. Agreement: 822390142600 (Request formalization)
VF-11-1726B	Viaduct of Corinthians Station – Itaquera Via 2 (Direction Estudantes)	Concrete	Active	TAT-ITQ	11	17	26	Over Rua Eng. Sidney Aparecido de Moraes	São Paulo	Itaquera	-23.542230°, -46.472855°	CPTM	Work Plan. No. 26 – Addendum, No. 01. Agreement: 822390142600 (Request formalization)
VF-11-1912A	Over Av. Itaquera (Itaquera / Dom Bosco Stretch 19-12/19-18)	Concrete	Active	ITQ-DOB	11	19	12	Over Tomazzo Ferrara Street and Av. Itaquera Transposition: Rio Verde	São Paulo	Itaquera	-23.540634°, -46.459207°	CPTM / PMSP	Work Plan. No. 26 – Addendum, No. 01. Agreement: 822390142600
VF-11-2017A	Don Bosco Station (20-17/20-29)	Concrete	Active	DOB	11	20	17	Av. Jacu-peach Transposition: Jacu River	São Paulo	Itaquera	-23.541773°, -46.450486°	CPTM / PMSP	Work Plan. No. 26 – Addendum, No. 01. Agreement: 822390142600

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VF-11-2214A	José Bonifácio Station (22-14/22-28)	Concrete	Active	JBO	11	22	14	Av. Nagib Farah Maluf Transposition: Unnamed stream	São Paulo	Itaquera	-23.539350°, -46.432496°	CPTM	Work Plan. No. 26 – Addendum, No. 01. Agreement: 822390142600
VF-11-2827A	Over Caetano Rúbio Street	Concrete	Active	AGN-FVC	11	28	25	Av. Gov. Jânio Quadros x R. Godofredo O. Neves	Ferraz de Vasconcelos	-	-23.547089°, -46.377619°	CPTM	N/C
VF-11-3805A	MRS RGS Extension (Not CPTM, it's external)	Mixed	Active	SUZ-JPB	11	38	7	Av. Jorge Bei Maluf, 1236	Suzano	-	-23.535776°, -46.296015°	MRS	N/C
VF-11-5006A	Eng. Osvaldo Crespo de Abreu	Concrete	Active	MOC-EST	11	50	6	R. Olegário Paiva x Av. Francisco Rodrigues Filho	Mogi das Cruzes	-	-23.517042°, -46.187874°	CPTM / PMMC	029/91 vol. III - SA / 040/98
VF-12-0601A	Over Av. Salim Farah Maluf (Pires do Rio)	Concrete	Active	BAS-TAT	12 / 11	6	13	Av. Salim Farah Maluf, alt. do nº 3400	São Paulo	Mooca	-23.540805°, -46.580871°	CPTM	N/C
VF-12-0909A	Over Manoel da Graça Street	Concrete	Active	TAT-EGO	12	9	9	R. Manoel da Graça	São Paulo	Mooca	-23.531449°, -46.553388°	CPTM	N/C
VF-12-0914A	Sobre a Av. Celso Garcia - V2 Sentido CVN	Metal	Active	TAT-EGO	12	9	14	Av. Celso Garcia x R. Cel. Rodovalho	São Paulo	Penha	-23.529437°, -46.553395°	CPTM	N/C
VF-12-0914B	Over Av. Celso Garcia - V1 Direction BAS	Metal	Active	TAT-EGO	12	9	14	Av. Celso Garcia x R. Cel. Rodovalho	São Paulo	Penha	-23.529437°, -46.553395°	CPTM	N/C
VF-12-0920A	Over Rua Ver. Cid. Galvão da Silva	Concrete	Active	TAT-EGO	12	9	20	R. Councillor Cid Galvão da Silva	São Paulo	Penha	-23.526429°, -46.553337°	CPTM	N/C
VF-12-1126A	Over Av. Gabriela Mistral	Concrete	Active	TAT-EGO	12	11	26	Av. Gabriela Mistral x Av. Dr. Assis Ribeiro	São Paulo	Penha	-23.509560°, -46.550750°	CPTM	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VF-12-1313A	Over Adelina Linhares "Sapo" Street	Concrete	Active	TAT-EGO	12	13	13	R. Adelina Linhares x Av. Dr. Assis Ribeiro alt. 1892	São Paulo	Penha	-23.502416°, -46.535264°	CPTM	N/C
VF-12-1430A	New Goulart Underpass (Quatiara Street)	Concrete	Active	TAT-EGO	12	14	30	Av. Dr. Assis Ribeiro / R. Quitiara	São Paulo	Penha	-23.499694°, -46.524479°	CPTM	N/C
VF-12-2317A	Over Santa Maura Street	Concrete	Active	ERM-SMP	12	23	17	Reference: Asdrúbal Street / José Leal Fontoura Street	São Paulo	São Miguel Paulista	-23.491854°, -46.453311°	CPTM	N/C
VF-12-2317B	Over Rua Santa (Parallel road)	Concrete	Active	ERM-SMP	12	23	17	Reference: Asdrúbal Street / José Leal Fontoura Street	São Paulo	São Miguel Paulista	-23.491907°, -46.453320°	CPTM	N/C
VF-12-3602A	Over Av. Fernando Vasconcelos Rossi (Av. IV Centenary)	Concrete	Active	IQC-ARC	12	36	2	Av. IV Centenary	Itaquaquecetuba	-	-23.487814°, -46.341464°	CPTM	N/C
VF-13-1902A	Viaduct over Access to the Hélio Smidt Highway (02/19 to 07/19)	Concrete	Active	EGO-GCE	13	19	2	-	Guarulhos	-	-23.474866°, -46.496950°	CPTM	N/C
VF-13-1907A	Cable-stayed viaduct over Ayrton Senna and Hélio Smidit highways (07/19 to 03/20)	Concrete	Active	EGO-GCE	13	19	7	SP 070 - KM 19 East / SP 070 - KM 19 West / SP 070 - KM 19 West / BR 610 - KM 01 South	Guarulhos	-	-23.473171°, -46.493994°	CPTM	N/C
VF-13-2017A	Viaduct over the Presidente Dutra Highway (20/17 to 21/04)	Concrete	Active	EGO-GCE	13	20	17	-	Guarulhos	-	-23.461391°, -46.489360°	CPTM	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Lines	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
VF-13-2104A	Viaduct over the Access Loop / Monteiro Lobato Avenue (04/21 to 11/21)	Concrete	Active	EGO-GCE	13	21	4	-	Guarulhos	-	-23.458164°, -46.489345°	CPTM	N/C
VF-13-2112A	Viaduct over the Hélio Smidit Highway (12/21 to 18/21)	Concrete	Active	EGO-GCE	13	21	12	BR 610	Guarulhos	-	-23.455387°, -46.490434°	CPTM	N/C

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

10.2.7 Railway bridges

Table 118 – List of existing railway bridges along the LINES

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Line	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PF-11-0024A	Over the Tamanduateí River (00-25/00-26) (Av. do Estado)	Concrete	Active	LUZ-BAS	11	0	24	Reference: Av. do Estado, amendment of nº 2,842	São Paulo	Se	-23.537441°,-46.626587°	CPTM	N/C
PF-11-0911A	Over the Aricanduva River	Concrete	Active	TAT-ITQ	11	9	15	Reference: Eng. Alberto Badra Viaduct	São Paulo	Penha	-23.534578°,-46.548171°	CPTM	N/C
PF-11-2309A	Ribeirão Itaquera / CEU Jambeiro	Concrete	Active	JBO-GUA	11	23	6	Av. José Pinheiro Borges X R. Benedito Leite de Ávila / Ref. CEU Jambeiro	São Paulo	Guaianases	-23.540260°,-46.421938°	CPTM / PMSP	Work Plan. No. 26 – Addendum, No. 01. Agreement: 822390142600
PF-11-3007A	Over Ribeirão Itaim	Concrete	Active	AGN-FVC	11	30	7	Reference: R. Godofredo Osório Novais	Ferraz de Vasconcelos	-	-23.539733°,-46.366903°	CPTM	127/76 SR RFFSA

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Line	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PF-11-3015A	São Judas Tadeu Garden	Concrete	Active	FVC-POA	11	30	15	Ref. Rua Anielo Paulino on the side of R. Lourenço Paganucci	Ferraz de Vasconcelos	-	-23.537334,-46.363594	CPTM	N/C
PF-11-3206A	Over the Tanquinho Stream - V1 (Luz)	Metal	Active	FVC-POA	11	32	7	Reference: Av. Vicente Leporace, alt. of nº 611	Poá	-	-23.529027°,-46.349893°	CPTM	N/C
PF-11-3206B	Over the Tanquinho Stream - V2 (Estudantes)	Metal	Active	FVC-POA	11	32	7	Reference: Av. Vicente Leporace, alt. of nº 611	Poá	-	-23.528993°,-46.349925°	CPTM	N/C
PF-11-3414A	Over the Guaió River - V1 (Luz)	Metal	Active	CVN-SUZ	11	34	14	Reference: Av. Brazil, Amendment No. 1500	Poá	-	-23.526564°,-46.329746°	CPTM	N/C
PF-11-3414B	Over the Guaió River - V2 (Estudantes)	Metal	Active	CVN-SUZ	11	34	14	Reference: Av. Brazil, Amendment No. 1500	Poá	-	-23.526525°,-46.329751°	CPTM	N/C
PF-11-3711A	Romanato Domenico Street	Concrete	Active	SUZ-JPB	11	37	14	Romanato Domenico Street	Suzano	-	-23.535226°,-46.304650°	CPTM	N/C
PF-11-3714A	Over Ribeirão Chico da Vargem - V1 (Luz)	Concrete	Active	SUZ-JPB	11	37	11	Reference: Av. Jorge Bei Maluf, Amendment to No. 529	Suzano	-	-23.535753°,-46.303410°	CPTM	N/C
PF-11-3714B	Over Ribeirão Chico da Vargem - V2 (Estudantes)	Concrete	Active	SUZ-JPB	11	37	11	Reference: Av. Jorge Bei Maluf, Amendment to No. 529	Suzano	-	-23.535705°,-46.303390°	CPTM	N/C
PF-11-3714C	Over Ribeirão Chico da Vargem - V3 (Deactivated)	Concrete	Active	SUZ-JPB	11	37	11	Reference: Av. Jorge Bei Maluf, Amendment to No. 529	Suzano	-	-23.535661°,-46.303370°	CPTM	N/C
PF-11-3807A	Jardim, Portugal	Concrete	Active	SUZ-JPB	11	38	7	Reference: Av. Jorge Bei Maluf	Suzano	-	-23.535593°,-46.294682°	CPTM	N/C
PF-11-4103A	Over the Taiaçupeba River - V1 (Luz)	Metal	Active	SUZ-JPB	11	41	3	Reference: Estrada Velha Rio-SP, alt. nº 2267	Suzano	-	-23.540825°,-46.270736°	CPTM	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Line	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PF-11-4103B	Over the Taiaçupeba River - V2 (Estudantes)	Metal	Active	SUZ-JPB	11	41	3	Reference: Estrada Velha Rio-SP, alt. nº 2267	Suzano	-	-23.540766°,-46.270730°	CPTM	N/C
PF-11-4115A	Real Park Tietê	Concrete	Active	SUZ-JPB	11	41	15	Reference: R. Guilherme George, alt. nº 1660	Mogi das Cruzes	-	-23.541952°,-46.263284°	CPTM	N/C
PF-11-4314A	Over the Jundiaí River - V1 (Estudantes)	Metal	Active	JPB-BCB	11	43	14	Reference: Av. Almerinda Vilela Ferreira	Mogi das Cruzes	-	-23.542257°,-46.244808°	CPTM	N/C
PF-11-4314B	Over the Jundiaí River - V2 (Luz)	Metal	Active	JPB-BCB	11	43	14	Reference: Av. Almerinda Vilela Ferreira	Mogi das Cruzes	-	-23.542201°,-46.244828°	CPTM	N/C
PF-11-4508A	Over Ribeirão dos Canudos	Concrete	Active	JPB-BCB	11	45	8	Reference: Av. Anchieta x R. Henrique Lizot	Mogi das Cruzes	-	-23.537351°,-46.228758°	CPTM	N/C
PF-11-4605A	Over the Gregorio Stream	Concrete	Active	BCB-MDC	11	46	5	Reference: Av. Anchieta, alt. of nº 88	Mogi das Cruzes	-	-23.535072°,-46.221224°	CPTM	N/C
PF-12-2512A	Over the Itaquera Stream	Concrete	Active	SMP-JHE	12	25	12	Reference: R. Esperanto language	São Paulo	São Miguel Paulista	-23.491230°,-46.435889°	CPTM	Case 84500 CPTM
PF-12-3014A	Over the Tijuco Preto Stream (channeled)	Concrete	Active	ITI-JRO	12	30	14	Reference: R. Jerônimo Maranhão	São Paulo	São Miguel Paulista	-23.486287°,-46.388249°	CPTM	N/C
PF-12-3118A	Over Ribeirão Três Pontes	Concrete	Active	JRO-EMF	12	31	18	Reference: Av. das Pontes	São Paulo	São Miguel Paulista	-23.481663°,-46.378405°	CPTM	Agreement: 087/89 - Estrut. CPTM
PF-12-3516A	Caxias do Sul Street	Concrete	Active	IQC-ARC	12	35	16	Reference: R. Vinte e Um de Abril, alt. do nº 173	Itaquaquecetuba	-	-23.488013°,-46.345058°	CPTM	N/C
PF-12-4004A	Over the Itaim Stream	Concrete	Active	ARC-CVN	12	40	4	Ref. by. Fernando Rossi / Av. Leonor B. M. da Silva	Poá	-	-23.519675°,-46.337189°	CPTM	N/C

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Line	Km	Post	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
PF-13-1814A	Bridge over the Tietê River (18/14 to 19/01)	Concrete	Active	EGO-GCE	13	18	14	-	São Paulo	Ermelino Matarazo	-23.476891°,-46.499170°	CPTM	N/C
PF-13-2014A	Bridge/viaduct over the Baquirivu-Guaçu River (14/20 to 18/20)	Concrete	Active	EGO-GCE	13	20	14	-	Guarulhos	-	-23.463344°,-46.489840°	CPTM	N/C

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

10.2.8 Tunnels

Table 119 – List of existing tunnels along the LINES

ID CPTM	Denomination	Structure	Situation (12/22/23)	Stretch	Line	Km (start)	Post (start)	Km (end)	Post (fim)	Address	Municipality	Subprefecture	Coordinates	Structural maintenance responsibility	Process / Agreement
TU-11-1918A	Don Bosco Station	Concrete	Active	ITQ-DOB	11	19	18	20	17	Reference: Av. Itaquera to R. Vitório Santin	São Paulo	Itaquera	-23.541184°,-46.456546°	CPTM	N/C
TU-11-2029A	José Bonifácio Station	Concrete	Active	DOB-JBO	11	20	29	22	14	Reference: R. Prof. Brito Machado to R. Batista Bovicelli	São Paulo	Itaquera	-23.541814°,-46.445057°	CPTM	N/C
TU-11-2228A	Guaianases Station	Concrete	Active	JBO-GUA	11	22	28	22	47	Reference: R. Agostinho D. de Arouche to Estrada Itaquera-Guaianases	São Paulo	Itaquera	-23.538704°,-46.430043°	CPTM	N/C

Source: CPTM, 2023. Elaborated by: TYLIN-Egis Consortium.

11 PROPERTY TAX DATA BY MUNICIPALITY

The following information, contained in the Table 120, indicate the tax situation in relation to any obligations to pay Urban Property and Land Tax (IPTU) arising from the use of the properties to be made available and/or delivered to the CONCESSIONAIRE.

i. The CONCESSIONAIRE shall respond, administratively and/or judicially, for any tax questions that may arise from challenges to the current situation of tax immunity of these properties. ARTESP will provide institutional support to the CONCESSIONAIRE, if necessary, in the understandings with the Public Agencies to maintain tax immunity.

ii. For the municipalities of São Paulo, Guarulhos, Itaquaquecetuba, Poá, Ferraz de Vasconcelos, Suzano and Mogi das Cruzes, there is a commitment, under the terms of the respective agreements contained in EXHIBIT XI, for the municipalities to adopt the necessary measures for the formal recognition of the non-incidence of IPTU on the CONCESSION ASSETS in their territory, as a result of the constitutional reciprocal immunity, in line with the understanding of the Attorney General's Office of the State of São Paulo.

iii. If there is an agreement for the collection of IPTU for the listed properties and, after effective payment of this obligation, the CONCESSIONAIRE may request economic and financial rebalancing, observing the terms and conditions set forth in the AGREEMENT, especially Clause 22 and following of the AGREEMENT.

Table 120 – List of taxpayers by municipality

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
001.012.0041-2	7, 10 AND 11	-	AV. TIRADENTES, S/Nº - NR-1	AREA NEXT TO THE ENG. ROMERO ZANDER VIADUCT - LUZ	-	-	-	-	601,00	90,00
001.016.0011-9	7, 10 and 11	-	R. POSSIDÔNIO INÁCIO, 180	(PÁTIO DA LUZ)	-	-	-	-	116,00	0,00
001.018.0001-0	7, 10 and 11	-	PRAÇA DA LUZ, 01	(ESTAÇÃO DA LUZ) CURRENT MUSEUM OF THE PORTUGUESE LANGUAGE	-	-	-	-	12.460,00	14.842,00
002.016.0019-6	7, 10 and 11	-	R. MAUÁ, S/Nº	(ESTAÇÃO DA LUZ)	-	-	-	-	4.500,00	0,00
025.084.0001-7	11 AND 12	-	AV. RANGEL PESTANA, 1807	LINE BED BETWEEN THE GASÔMETRO VIADUCT AND MAESTRO ALBERTO MARINHO VIADUCT IN BRÁS	-	-	-	-	840,00	400,00
027.084.0016-9	11 AND 12	159.526, 206.129 E 206.128	AV. RANGEL PESTANA S/Nº	BRÁS STATION AND YARD	-	-	-	-	101.554,00	32.435,00

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
027.089.0012-9	11	-	RUA MARIANO GARCIA GONZALES 287 TO 509	ENCOMPASSES THE ENTIRE YARD OF ENG. SÃO PAULO	-	-	-	-	85.444,00	17.505,00
030.166.0003-1	11 AND 12	-	RUA DOMINGOS AGOSTIM, 91 E R DR MELO FREIRA	PROPERTY BELONGS TO THE SUBWAY ACCESS TO TATUAPÉ SUBWAY STATION (VIA SHOPPING)	-	-	-	-	32.129,00	121.339,00
030.167.0001-8	11 AND 12	-	RUA MELO FREIRE, S/Nº, ESTAÇÃO METRÔ TATUAPÉ	PROPERTY BELONGS TO THE METRO	-	-	-	-	8.987,00	5.250,00
030.167.0002-6	11 AND 12	-	RUA MELO FREIRE, S/Nº, CPTM TATUAPÉ STATION	PROPERTY BELONGS TO THE METRO	-	-	-	-	5.260,00	2.630,00
030.168.0004-7	11 AND 12	-	RUA CATINGUA, S/Nº, ACCESS CPTM STATION (VIA SHOPPING)	PROPERTY BELONGS TO THE METRO	-	-	-	-	10.332,00	3.340,00
056.067.0028-1	12	-	AV. CELSO GARCIA, 6174	LINE BED UNDER THE ENG ALBERTO BADRA VIADUCT, BETWEEN ARICANDUVA AVENUE, CELSO GARCIA, ALBERTO DE FRANCO STREET.	-	-	-	-	3.285,00	0,00

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
056.187.0002-6	12	-	R. MELO PEIXOTO, 1618 (SE SEBASTIÃO GUALBERTO) - NR-1	CANCELLED 2014	-	-	-	-	6.300,00	400,00
056.187.0003-4	12	-	R. MELO PEIXOTO, 1600 TO 1616	AREA WITH FRONT HOUSE OF RFFSA AND BACK YARD ENG. GUALBERTO	-	-	-	-	3.510,00	700,00
059.182.0008-8	12	-	RUA BARRA DO JEQUITI S/N -	-	-	-	-	-	5.059,00	800,00
060.026.0061-2	12	-	R. ILHA DE Tupinambarans, S/N	CANCELLED 2014 º (ENG. TRINDADE 420.2876 TO 78/80/81)	-	-	-	-	1.280,00	0,00
060.133.0001-1	12	59.072	R. RINÓPOLIS, 73 JARDIM JAÚ – PENHA	(FOOTBRIDGE)	-	-	-	-	240,00	112,00
060.133.0002-1	12	59.071	R. RINÓPOLIS, 65 JARDIM JAÚ – PENHA	(FOOTBRIDGE)	-	-	-	-	242,00	155,00
060.320.0001-1	12	-	R. DAVID MARY, 114	CANCELLED 2014 (ENG. TRINDADE STATION)	-	-	-	-	9.157,00	700,00
061.020.0034-1	12	-	R. CAPITÃO JOÃO CESÁRIO, 343	CANCELLED 2015	-	-	-	-	208,00	100,00
061.168.0001-7	12	-	RUA GUAIAUNA, S/Nº -	CANCELLED 2015 CARLOS DE CAMPOS STATION (DEACTIVATED - DEMOLISHED)	-	-	-	-	353,00	0,00

SPI PROCESS nº 021.00000891/2024-87
INTERNATIONAL COMPETITION Nº 02/2024
PPP LOTE ALTO TIETÊ

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
062.245.0001-0	12	65.904	RUA NATAL BASILE S/Nº MARG ESQUERDA DA ESTRADA DE FERRO CENTRAL DO BRASIL	-	-	-	-	-	39.698,00	867,00
062.246.0040-6	12	-	RUA ANGELO MARI S/N	CANCELLED 2014	-	-	-	-	952,00	0,00
062.246.0054-6	12	-	THE UNNAMED (CANG) CS1	CANCELLED 2014	-	-	-	-	200,00	120,00
110.027.0025-5	11 AND 13	73.326	RUA DR ASSIS RIBEIRO, 3496/3498/3500 - ENG GOULART	EXPROPRIATION LINE 13 JADE	-	-	-	-	269,00	403
110.027.0044-1	13	25.433	RUA DR ASSIS RIBEIRO, 3514 – ENG. GOULART	START OF PAYMENT IN OCTOBER/2016 EXPROPRIATION LINE 13 JADE	-	-	-	-	455,00	507,00
110.401.0002-2	13	-	RUA DR ASSIS RIBEIRO, 3989 ENG. GOULART - EXPROPRIATION LINE 13 JADE	EXPROPRIATION LINE 13 JADE	-	-	-	-	103,00	93,00
110.401.0003-0	13	66.568	RUA DR ASSIS RIBEIRO, 3991 ENG. GOULART - EXPROPRIATION LINE 13 JADE	EXPROPRIATION LINE 13 JADE	-	-	-	-	128,00	90,00
110.401.0004-9	13	68.128	RUA DR. ASSIS RIBEIRO, 3997 ENG. GOULART - EXPROPRIATION LINE 13 JADE	EXPROPRIATION LINE 13 JADE	-	-	-	-	397,00	120,00

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
110.401.0005-7	13	68.128	RUA DR. ASSIS RIBEIRO, 11 ENG. GOULART - EXPROPRIATION LINE 13 JADE	EXPROPRIATION LINE 13 JADE	-	-	-	-	216,00	36,00
110.401.0006-5	13	66.564	R. DOUTOR ASSIS RIBEIRO, 4042 - ENG GOULAART	EXPROPRIATION LINE 13 JADE	-	-	-	-	260,00	190,00
110.401.0009-1	13	66.569	RUA DR. ASSIS RIBEIRO, ENG. GOULART - EXPROPRIATION LINE 13 JADE	EXPROPRIATION LINE 13 JADE	-	-	-	-	436,00	36,00
110.401.0010-3	13	-	RUA DR. ASSIS RIBEIRO, 4063 ENG. GOULART -	EXPROPRIATION LINE 13 JADE	-	-	-	-	300,00	271,00
110.401.0011-1	13	72.994	RUA DOUTOR ASSIS RIBEIRO 4071 E 4073 A E B ENG. GOULART	EXPROPRIATION LINE 13 JADE	-	-	-	-	224,00	212,00
110.401.0012-1	13	-	RUA DOUTOR ASSIS RIBEIRO 4077, 4079, 4083, 4091 ENG. GOULART	EXPROPRIATION LINE 13 JADE	-	-	-	-	390,00	386,00
110.401.0015-4	13	65.552	RUA DR. ASSIS RIBEIRO, 4127 ENG. GOULART -	EXPROPRIATION LINE 13 JADE - AREA OF 212.50M²)	-	-	-	-	437,00	1.070,00
110.401.0016-2	13	72.995	RUA DR. ASSIS RIBEIRO, 4133 4137 AND 4139 ENG. GOULART -	EXPROPRIATION LINE 13 JADE	-	-	-	-	712,00	310,00

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
110.401.0020-0	13	69.329	DR ASSIS RIBEIRO 3B CANGAIBA	EXPROPRIATION LINE 13 JADE	-	-	-	-	59,00	35,00
110.401.0024-3	13	-	RUA DOUTOR ASSIS RIBEIRO, 3965, VILA SILVIO ENG. GOULART	EXPROPRIATION LINE 13 JADE	-	-	-	-	1.376,00	1.066,00
110.401.0025-1	13	72.991 E 72.992	RUA DOUTOR ASSIS RIBEIRO 1999 VILA SILVIO ENG. GOULART	EXPROPRIATION LINE 13 JADE	-	-	-	-	1.599,00	50,00
110.401.0026-1	13	72.991 E 72.992	R. DR. ASSIS RIBEIRO, S/Nº (PÁTEO DA ESTAÇÃO COMENDADOR ERMELINO MATARAZZO)	CANCELLED 2015	-	-	-	-	572,00	0,00
110.401.0027-8	13	65.562 E 65.563	RUA DR ASSIS RIBEIRO, 4109-31 ENG. GOULART -	EXPROPRIATION LINE 13 JADE (REGISTRATION 65,562 AREA OF 263.71M² AND REGISTRATION 65,563 AREA OF 174.28)	-	-	-	-	440,00	276,00
110.401.0030-8	13	-	RUA DR. ASSIS RIBEIRO, 27 - 27A ENG. GOULART -	EXPROPRIATION LINE 13	-	-	-	-	252,00	120,00
110.401.0034-0	13	38.109, 38.110 E 66.631	RUA DR. ASSIS RIBEIRO, 4181 ENG. GOULART	EXPROPRIATION LINE 13 - UNIFIED CONTACT 110.401.0028-6,	-	-	-	-	529,00	440,00

SPI PROCESS nº 021.00000891/2024-87
INTERNATIONAL COMPETITION Nº 02/2024
PPP LOTE ALTO TIETÊ

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
				110.401.0019-7 AND 110.401.0032-4						
110.401.0035-9	13	70.751	RUA DR. ASSIS RIBEIRO, 4031 ENG. GOULART - EXPROPRIATION LINE 13	EXPROPRIATION LINE 13	-	-	-	-	105,00	86,00
110.401.0036-7	13	70.751	RUA DR. ASSIS RIBEIRO, 4037 ENG. GOULART - EXPROPRIATION LINE 13	EXPROPRIATION LINE 13	-	-	-	-	105,00	75,00
110.401.0037-5	13	70.751	RUA DR. ASSIS RIBEIRO, 4041 ENG. GOULART - EXPROPRIATION LINE 13	EXPROPRIATION LINE 13	-	-	-	-	105,00	65,00
110.401.0038-3	13	70.751	RUA DR. ASSIS RIBEIRO, 4045 ENG. GOULART - EXPROPRIATION LINE 13	EXPROPRIATION LINE 13	-	-	-	-	105,00	65,00
111.390.0002-1	12	-	R. DR. ASSIS RIBEIRO, S/Nº	(COMENDADOR ERMELINO MATARAZZO STATION)	-	-	-	-	7.000,00	1.000,00
112.212.0001-0	12	-	RUA SÃO GONÇALO DO RIO DAS PEDRAS, 1.200	(JARDIM HELENA STATION)	-	-	-	-	10.000,00	200,00
112.283.0018-5	12	174.970	PRAÇA PADRE ALEIXO MONTEIRO MAFRA, 125	ACCESS TO SÃO MIGUEL PAULISTA	-	-	-	-	585,00	0,00

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
112.283.0019-3	12	33.204	PRAÇA PADRE ALEIXO MONTEIRO MAFRA, 36	ACCESS AND ENTRANCE TO SÃO MIGUEL PAULISTA	-	-	-	-	1.300,00	0,00
112.283.0020-7	12	117.392 E 220.811	PRAÇA PADRE ALEIXO MONTEIRO MAFRA, 89, 93, 99	ACCESS SÃO MIGUEL PAULISTA -	-	-	-	-	1.425,00	535,00
112.288.0059-5	12	243.377 / 243.378 / 60.527	PRAÇA PADRE ALEIXO MONTEIRO MAFRA, 71	ACCESS SÃO MIGUEL PAULISTA - MUST BE FOLDED	-	-	-	-	2.296,00	300,00
112.867.0001-8	12	206.019, 206.020, 206.021, 206,022, 206.023, 206.024 E 206.026	R. SALVADOR DE MEDEIROS, 441 -	SÃO MIGUEL STATION - REGISTRATION 202,128 WITH AN AREA OF 14,392.00M²	-	-	-	-	20.924,00	3.906,00
112.291.0002-3	12	-	RUA FAUSTINO SANTANA 166	-	-	-	-	-	208,00	0,00
113.237.0003-9	11	-	R. DR. LUIZ AYRES, S/Nº	(ARTUR ALVIM STATION)	-	-	-	-	6.875,00	0,00
113.487.0060-1	11	-	R. DR. LUIS AYRES	(ESQ. LARGO INDEP. - EST. ARTUR ALVIM CPTM/METRÔ)	-	-	-	-	6.000,00	0,00
113.519.0001-2	11	-	R. DR. LUIZ AYRES	(ARTUR ALVIM CPTM/METRO STATION)	-	-	-	-	25.000,00	0,00

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
114.075.0092-8	11	-	R. SABADO D'ANGELO Nº 1000, 1114, 1116, 1118, 1122 VL. CARMOSINA -	DOM BOSCO SUBWAY STATION PROPERTY CANCELED	NOTIFICATION CANCELLED					
114.075.0388-9	11	-	R. SABBADO D'ANGELO Nº 1024 - DOM BOSCO STATION	CANCELED CONTR 114.075.0092-8 AND OTHERS	-	-	-	-	19.321,00	10.290,00
114.081.0014-1	11	-	R. GREGÓRIO RAMALHO, 142	(ITAQUERA STATION)	-	-	-	-	1.480,00	200,00
114.326.0013-2	11	90.014 E 75.689, 81.378, 20.814, 70213, 81.391, 90.013	R. ANTÔNIO MOURA ANDRADE, S/Nº	(SE ITAQUERA)	-	-	-	-	7.282,00	0,00
114.326.0014-0	11	75.689	RUA ISAIAS COELHO, 12	RESIDENCE AT THE ITAQUERA SUBSTATION	-	-	-	-	306,00	50,00
114.326.0015-9	11	75.689	RUA ISAIAS COELHO, 14	RESIDENCE AT THE ITAQUERA SUBSTATION	-	-	-	-	306,00	50,00
114.326.0016-7	11	-	RUA ISAIAS COELHO, 16	RESIDENCE AT SE ITAQUERA	-	-	-	-	306,00	50,00
115.049.0016-1	11	-	R. BELMIRO VALVERDE, S/Nº	CANCELLED IN 2015 - GUAIANAZES STATION AND RAILS	-	-	-	-	1.416,00	0,00
115.080.0397-0	11	-	R. SALVADOR GIANETTI, 271, PARQUE LINEAR	CANCELED IN 2015	-	-	-	-	13.500,00	160,00

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
130.103.0133-1	12	-	RUA DR ASSIS RIBEIRO 1540	-DESAPR USP LESTE ACTION 11.756-C	-	-	-	-	6.837,00	1.192,00
133.096.0004-0	12	7.883	R. CORDÃO DE SÃO FRANCISCO, 38	(LAND FOR GALLERY NEAR EST. ITAIM PTª)	-	-	-	-	244,00	60,00
133.197.0014-5	12	-	R. MANUEL MARTINS DE MELO S/Nº	CANCELED IN 2015 - ITAIM PAULISTA EST. + PASSARELA (2011)	-	-	-	-	1.067,00	0,00
133.197.0040-4	12	-	R. MANUEL MARTINS DE MELO, S/Nº - SÃO MIGUEL PAULISTA	CANCELED IN 2015 - ITAIM PAULISTA EST. + PASSARELA (2011)	-	-	-	-	210,00	0,00
133.239.0002-1	12	-	AV. MARECHAL TITO, 6829 (ESTAÇÃO JARDIM ROMANO) (2011)	UNPAID SPLITTING - COTRAST	-	-	-	-	30.032,00	19.988,00
133.239.0011-0	12	160.485	RUA JOSÉ ALVARES MOREIRA S/Nº ITAIM PAULISTA -ESTAÇÃO JARDIM ROMANO	-	-	-	-	-	2.603,00	250,00
133.277.0053-1	12	-	OS ANTONIO REBOUÇAS DA SILVA, 34 TRES PONTES JD	I BECAME AWARE OF THE IPTU THROUGH THE AWARD LETTER. IN FEB/21	-	-	-	-	168,00	50,00
133.277.0054-1	12	-	AV. DIOGO DA COSTA, 525 - JD HELENA - ITAIM PAULISTA -	FOOTBRIDGE NEAR JARDIM ROMANO STATION	-	-	-	-	212,00	200,00

SPI PROCESS nº 021.00000891/2024-87
INTERNATIONAL COMPETITION Nº 02/2024
PPP LOTE ALTO TIETÊ

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
133.277.0056-6	12	-	PS ANTONIO REBOUÇAS DA SILVA 509 - LT 85 TRÊS PONTES -	FOOTBRIDGE NEAR JARDIM ROMANO STATION	-	-	-	-	161,00	318,00
133.280.0001-0	12	-	AV. MARECHAL TITO, 7555 JD HELENA SÃO MIGUEL PAULISTA	-	-	-	-	-	45.000,00	853,00
133.341.0001-3	12	-	R. RAFAEL CORREIA DA SILVA, 13 - VL. ITAIM	CANCELLED IN 2015 (ITAIM + ASSARELA STATION) (2011)	-	-	-	-	23.215,00	5.060,00
133.341.0002-1	12	-	R. CORDÃO DE SÃO FRANCISCO, 199 - VL. ITAIM -	CANCELED IN 2015 - ITAIM PAULISTA STATION (2011)	-	-	-	-	785,00	90,00
136.003.0001-5	11	-	ESTRADA DE POÁ, 205 KM 473+880M - FOOTBRIDGE	POSSESSION MISSION 06/14/1998 - ACTION 1248-C PARTIAL EXPROPRIATION (196.14M²)	NOTIFICATION CANCELLED					
136.034.0001-0	11	-	PROFESSOR COSME DEODATO TADEU S/Nº -	(PASSAR GUAIANAZES) - PROC 165/DA//86	NOTIFICATION CANCELLED					
136.034.0002-9	11	-	PROFESSOR COSME DEODATO TADEU S/Nº -	(PASSAR GUAIANAZES) - PROC 165/DA//86	-	-	-	-	64,00	0,00
138.006.0001-2	11	-	R. DAMÁSIO PINTO, S/Nº	CANCELLED IN 2015 DNIT (STATION XV DE	-	-	-	-	21.000,00	400,00

LIST OF TAXPAYERS - IPTU 2024										
SÃO PAULO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.555-C. BECAME FINAL.										
Due to the large volume of taxpayers, the City of São Paulo has not yet canceled all IPTU issuances, and it is necessary for CPTM to notify the City Hall when there is an undue charge. Specifically in relation to LINE 11, between Artur Alvim and Guaianases, the responsibility for the IPTU is of METRÔ, owner of the land, according to Term of Responsibility No. 1001518601 (Exchange of Assets l5-lilac – LINE 11).										
TAXPAYER	**LINES**	**PROPERTY REGISTRATION**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
				NOVEMBRO) DEMOLISHED						
138.349.0019-1	11	-	AV. UM (J. HELENA -GUA) S/Nº	PROPERTY OWNED BY METRÔ ESTAÇÃO JOSÉ BONIFÁCIO	-	-	-	-	20.393,00	0,00

LIST OF TAXPAYERS - IPTU 2024										
FERRAZ DE VASCONCELOS CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 20.473-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
12.0061.0022.000	11	53.149	SÍTIO DOS FLORÊNCIOS LOTE 02 (SE FERRAZ)	-	-	-	-	-	4.380,00	1.365,00
19.0001.0001.000	11	-	RAILWAY LINE (PART 01) (FROM THE AIRTON SENNA VIADUCT TO THE BORDER WITH POÁ)	-	-	-	-	-	24.231,25	0,00
19.0001.0002.000	11	-	RAILWAY LINE (PART 02) (FROM THE AIRTON SENNA VIADUCT TO PONTILHÃO) - INCLUDES FERRAZ STATION	-	-	-	-	-	49.206,25	231,56

LIST OF TAXPAYERS - IPTU 2024										
FERRAZ DE VASCONCELOS CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 20.473-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
19.0001.0003.000	11	-	RAILWAY LINE (PART 03) (FROM THE PONTOON TO VIADUCT VER. JOÃO BATISTA C. NETO)	-	-	-	-	-	58.626,40	0,00
19.0001.0004.000	11	-	RAILWAY LINE (PART 04) (FROM VIADUCT VER. JOÃO BATISTA C. NETO TO THE BORDER WITH GUAIANAZES - CONTAINS THE GIANETTE STATION	-	-	-	-	-	60.120,00	0,00
20.0060.0020.000	11	83.288	TRAV. COSME ABATE (POÁ SECTIONING CABINE)	-	-	-	-	-	630,00	160,71
20.0060.0021.000	11	29.675	TRAV. COSME ABATE (POÁ SECTIONING CABINE)	-	-	-	-	-	640,00	122,00

LIST OF TAXPAYERS - IPTU 2024										
CITY HALL OF POÁ										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.693-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
23212.14.26.0186.00.000.01	11	-	RUA CALIL HADDAD 21	- FOOTBRIDGE AT KM 38 LINE 12	-	-	-	-	-	-
23212.14.26.0222.00.000.01	11	87092	RUA CALIL HADDAD 15	- FOOTBRIDGE AT KM 38 LINE 12	-	-	-	-	-	-
23212.44.18.0042.00.000.01	11	-	RUA JAIR DE GODOY -	FOOTBRIDGE	-	-	-	-	75,08	0,00
43212.44.18.0067.01.000	11	41.288	RUA JAIR DE GODOY -	FOOTBRIDGE	-	-	-	-	-	-

LIST OF TAXPAYERS - IPTU 2024										
CITY HALL OF POÁ										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.693-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
43214.11.34.0001.00.000.02	11	-	PRAÇA RUY BARBOSA, 080	BP 420.2754 (AREA CEDED TO THE CITY HALL FOR THE INSTALLATION OF A MUSEUM)	-	-	-	-	585,30	88,40
43214.12.54.0001.01.000.01	11	-	RUA HERCULANO DUARTE, S/Nº - SE	CALMON VIANA	-	-	-	-	26.211,00	2.453,62
43214.12.56.0001.01.000.01	11	-	RUA HERCULANO DUARTE, 681 -	BP 420.2773	-	-	-	-	7.712,50	74,00
43214.12.56.0001.02.001.01	11	-	RUA HERCULANO DUARTE, 665 -	BP 420.2775	-	-	-	-	7.712,50	57,72
43214.12.56.0001.02.002.01	11	-	RUA HERCULANO DUARTE, 663 -	BP 420.2774	-	-	-	-	7.712,50	57,72
43214.12.56.0001.03.001.01	11	-	RUA HERCULANO DUARTE, 649 -	BP 420.2761	-	-	-	-	7.712,50	57,72
43214.12.56.0001.03.002.01	11	-	RUA HERCULANO DUARTE, 647 -	BP 420.2776	-	-	-	-	7.712,50	57,72
43214.12.56.0001.04.001.01	11	-	RUA HERCULANO DUARTE, 611 -	BP 420.2780	-	-	-	-	7.712,50	57,72
43214.12.56.0001.04.002.01	11	-	RUA HERCULANO DUARTE, 609 -	BP 420.2781	-	-	-	-	7.712,50	57,72
43214.12.56.0001.05.000.01	11	-	RUA HERCULANO DUARTE, 05 P/ RUA EXISTENTE	BP 420.2787	-	-	-	-	7.712,50	77,70
43214.12.56.0001.06.000.01	11	-	RUA HERCULANO DUARTE, 09 BY THE EXISTING STREET	BP 420.2786	-	-	-	-	7.712,50	120,44

LIST OF TAXPAYERS - IPTU 2024										
CITY HALL OF POÁ										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 23.693-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
43214.12.56.0001.07.000.01	11	-	RUA HERCULANO DUARTE, 06 BY THE EXISTING STREET	BP 420.2785	-	-	-	-	7.712,50	77,70
43214.12.56.0001.08.000.01	11	-	RUA HERCULANO DUARTE, 08 BY RUA EXISTENTE	BP 420.2784	-	-	-	-	7.712,50	77,70
43214.12.56.0001.09.000.01	11	-	RUA HERCULANO DUARTE, 10 BY THE EXISTING STREET	BP 420.2783	-	-	-	-	7.712,50	77,70
43214.12.56.0001.10.000.01	11	-	RUA HERCULANO DUARTE, 12 BY THE EXISTING STREET	BP 420.2766	-	-	-	-	7.712,50	98,08
43214.12.56.0001.11.001.01	11	-	RUA HERCULANO DUARTE, 01 BY THE EXISTING STREET	BP 420.2755	-	-	-	-	7.712,50	44,42
43214.12.56.0001.11.002.01	11	-	RUA HERCULANO DUARTE, 01 FDS BY RUA EXISTENTE	BP 420.2756	-	-	-	-	7.712,50	39,44
43214.12.56.0001.12.000.01	11	-	RUA HERCULANO DUARTE, 05 FDS BY THE EXISTING STREET	BP 420.2757	-	-	-	-	7.712,50	68
43214.12.56.0001.13.001.01	11	-	RUA HERCULANO DUARTE, 07 FDS BY THE EXISTING STREET	BP 420.2766	-	-	-	-	7.712,50	40,12
43214.12.56.0001.13.002.01	11	-	RUA HERCULANO DUARTE, 09 FDS BY THE EXISTING STREET	BP 420.2767	-	-	-	-	7.712,50	38,76

LIST OF TAXPAYERS - IPTU 2024										
SUZANO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 45.119-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
10.001.021	11	4.031	RUA GENERAL FRANCISCO GLICERIO 41 / 47	-	-	-	-	-	548,00	0,00
10.001.022	11	43.485	RUA GENERAL FRANCISCO GLICERIO 37	-	-	-	-	-	397,00	207,19
10.001.023	11	83.118	RUA GENERAL FRANCISCO GLICERIO 23 / 23F / 25	-	-	-	-	-	544,00	0,00
10.001.024	11	-	RUA GENERAL FRANCISCO GLICERIO 17	-	-	-	-	-	316,80	0,00
10.001.025	11	37.801	RUA GENERAL FRANCISCO GLICERIO 05	-	-	-	-	-	255,00	0,00
10.001.026	11	-	RUA GENERAL FRANCISCO GLICERIO 462	-	-	-	-	-	68,00	87,00
10.001.027	11	-	RUA DRº PRUDENTE DE MORAES, 472	-	-	-	-	-	74,00	0,00
10.001.028	11	-	RUA DRº PRUDENTE DE MORAES, 492	-	-	-	-	-	256,00	0,00
10.001.029	11	21.935	RUA DRº PRUDENTE DE MORAES, 496	-	-	-	-	-	243,00	0,00
10.001.030	11	-	RUA DRº PRUDENTE DE MORAES, 502	-	-	-	-	-	256,00	0,00
10.001.031-A	11	-	RUA DRº PRUDENTE DE MORAES, 504	-	-	-	-	-	257,04	0,00
10.001.032	11	-	RUA DRº PRUDENTE DE MORAES, 514	-	-	-	-	-	500,00	407,03
10.001.042	11	-	RUA DRº PRUDENTE DE MORAES, 486	-	-	-	-	-	334,30	0,00

LIST OF TAXPAYERS - IPTU 2024										
SUZANO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 45.119-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
20.010.003	11	72.585	RUA DRº PRUDENTE DE MORAES, 147	-	-	-	-	-	383,00	0,00
20.010.004	11	-	RUA DRº PRUDENTE DE MORAES, 131 AND 139	-	-	-	-	-	524,00	0,00
20.010.006	11	-	RUA DRº PRUDENTE DE MORAES, 125	-	-	-	-	-	235,99	0,00
20.010.008 (A E B)	11	4309 / 6.687 /7670	RUA DRº PRUDENTE DE MORAES, 93 (A AND B) AND 115	-	-	-	-	-	1.230,96	0,00
20.010.009	11	24.953	RUA DRº PRUDENTE DE MORAES, 85	-	-	-	-	-	358,98	0,00
20.010.010	11	-	RUA DRº PRUDENTE DE MORAES, 83	-	-	-	-	-	352,32	0,00
20.010.011	11	-	RUA DRº PRUDENTE DE MORAES, 65	-	-	-	-	-	358,00	0,00
20.010.012	11	83.638	RUA DRº PRUDENTE DE MORAES, 55	-	-	-	-	-	339,68	0,00
20.010.013	11	-	RUA DRº PRUDENTE DE MORAES, 45	-	-	-	-	-	354,00	0,00
20.010.014	11	5.370	RUA DRº PRUDENTE DE MORAES, 29	-	-	-	-	-	349,44	0,00
20.010.015	11	59.785	RUA DRº PRUDENTE DE MORAES, 27	-	-	-	-	-	357,05	0,00
20.010.016	11	10.146	RUA DRº PRUDENTE DE MORAES, 17	-	-	-	-	-	460,00	0,00

LIST OF TAXPAYERS - IPTU 2024										
SUZANO CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 45.119-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
20.010.025	11	-	RUA DRº PRUDENTE DE MORAES, 05	-	-	-	-	-	399,00	0,00
40.001.001	11	21.226	RUA DRº PRUDENTE DE MORAES, 577	-	-	-	-	-	1.182,00	912,68
40.001.002	11	68.507	RUA DRº PRUDENTE DE MORAES, 567 / 573	-	-	-	-	-	417,00	0,00
40.001.003	11	83.592	RUA DRº PRUDENTE DE MORAES, 559	-	-	-	-	-	250,96	0,00
40.001.004	11	47.534 / 47.533	RUA DRº PRUDENTE DE MORAES, 529	-	-	-	-	-	1.237,17	0,00
40.001.006	11	-	RUA DRº PRUDENTE DE MORAES, 521	-	-	-	-	-	203,00	0,00
40.001.007	11	-	RUA DRº PRUDENTE DE MORAES, 188	-	-	-	-	-	169,72	0,00
40.001.008	11	46.232	RUA DRº PRUDENTE DE MORAES, 511 /02 FUNDOS	-	-	-	-	-	163,71	0,00
40.001.009	11	-	RUA DRº PRUDENTE DE MORAES, 503	-	-	-	-	-	311,32	0,00
40.001.010	11	-	RUA DRº PRUDENTE DE MORAES, 487	-	-	-	-	-	384,19	0,00
40.001.011	11	-	RUA DRº PRUDENTE DE MORAES, 471 AND 473	-	-	-	-	-	567,67	0,00
40.001.018	11	-	RUA DRº PRUDENTE DE MORAES, 511 / 06 FUNDOS	-	-	-	-	-	114,09	0,00

LIST OF TAXPAYERS - IPTU 2024										
CITY HALL OF MOGI DAS CRUZES										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 20.470-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
07.095.001.001-5	11	-	AV. GOV. ADHEMAR DE BARROS, 00	STATION (BP 421.0060)	-	-	-	-	12.204,94	335,75
07.095.001.002-4	11	-	AV. GOV. ADHEMAR DE BARROS, 00	(MOGI DAS CRUZES STATION)	-	-	-	-	1.689,06	46,74
11.020.016.000-9	11	-	R. PROF. ALVARO PAVAN 42	(ESTUDANTES STATION)	-	-	-	-	12.806,72	0,00
11.110.004.001-6	11	-	AV. FRANCISCO RODRIGUES FILHO S/Nº	(OFFICE)	-	-	-	-	9.889,65	3.679,29
12.050.009.001-6	11	-	RUA CB DIOGO OLIVER, S/Nº	INCORPORATED INTO GOS (420.2841)	-	-	-	-	4.553,51	138,16
12.050.009.002-5	11	-	RUA CB DIOGO OLIVER, S/Nº	RESID (420.2817)	-	-	-	-	2.508,12	76,10
12.050.009.003-4	11	-	RUA CB. DIOGO OLIVER S/Nº	(03 HOUSES) (420.2842)	-	-	-	-	1.268,23	38,48
12.050.009.004-3	11	-	RUA CB DIOGO OLIVER, S/Nº	(03 HOUSES)	-	-	-	-	1.913,55	58,06
12.050.009.005-2	11	-	RUA CB DIOGO OLIVER, S/Nº	RESID (420.2818)	-	-	-	-	2.539,78	74,28
12.050.009.006-1	11	-	RUA CB DIOGO OLIVER, S/Nº	(BLUE WINDOW SHED)	-	-	-	-	1.651,20	50,10
12.050.009.007-0	11	-	RUA CB DIOGO OLIVER, S/Nº	RESID (420.2843)	-	-	-	-	2.580,63	78,30
12.050.009.008-0	11	-	RUA CB DIOGO OLIVER, S/Nº	RESID (420.2843)	-	-	-	-	2.580,63	78,30
12.050.009.009-9	11	-	RUA CB DIOGO OLIVER S/Nº	WAREHOUSE LOCATED IN THE YARD - BP 420.3817	-	-	-	-	6.692,25	203,06
12.077.002.000-5	11	27.683	RUA PROF. MARIO PORTES, 00	SE BRÁS CUBAS	-	-	-	-	7.046,32	412,70
13.049.001.000-8	11	-	RUA GUILHERME GEORGE, 123	JUNDIAPEBA WASHER	-	-	-	-	11.760,00	198,44
13.049.004-0	11	-	RUA GUIHERME GEORGE, 00	CABINE SECTIONING MACHINE	-	-	-	-	201,60	0,00
13.049.007.000.6	11	-	AV. AUREA MARTINS DOS ANJOS, S/Nº (1388)	(JUNDIAPEBA STATION)	-	-	-	-	2.054,10	1.161,09
13.050.003.000-5	11	-	RUA GUILHERME GEORGE, 915	-	-	-	-	-	1.882,81	86,48

LIST OF TAXPAYERS - IPTU 2024										
ITAQUAQUECETUBA CITY HALL										
TAX IMMUNITY. ISSUANCE OF IPTU CANCELED. ACTION 22.741-C. BECAME FINAL.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
44453.34.18.0001.00.000-1	12	-	AV. PRESIDENTE TANCREDO NEVES, S/Nº THE ENTIRE CAPTM AREA IN THE MUNICIPALITY	-	-	-	-	-	206.707,54	5.831,20
44451.44.31.0001.00.000-1	-	-	ESTRADA WALTER DA SILVA COSTA - VL SONIA - DO NOT PAY - PROPERTY OF RFFSA	-	DO NOT PAY - RFFSA PROPERTY					

LIST OF TAXPAYERS - IPTU 2024										
GUARULHOS CITY HALL										
TAX (01 TAXPAYER). CPTM AWAITS THE END OF THE EXPROPRIATIONS TO PROPOSE IMMUNITY ACTION.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
112.75.32.5108.02.000	13	-	RUA JOSÉ MARQUES PRATA Nº 100	PARTIAL EXPROPRIATION. IPTU WITH 8,552.00M², OF WHICH 207.00M² REFERS TO EXPROPRIATION AND 2,055.00M² REFERS TO EASEMENT. WAIT FOR DEFINITION.	-	-	-	-	-	-
082.71.16.0952.00.000	13	-	RUA JOAQUINA DE JESUS, 789	-	30.004,36	0,00	0,00	3.784.692,80	4.314,00	1.760,13

LIST OF TAXPAYERS - IPTU 2024										
GUARULHOS CITY HALL										
TAX (01 TAXPAYER). CPTM AWAITS THE END OF THE EXPROPRIATIONS TO PROPOSE IMMUNITY ACTION.										
TAXPAYER	**LINE**	**LICENSE PLATE**	**LOCAL**	**OBSERVATION**	**IPTU VALUE**	**GARBAGE FEE**	**STREETLIGHT**	**MARKET VALUE**	**LAND AREA**	**CONSTRUCTION AREA**
093.02.39.0001.00.000	13	-	AV MONTEIRO LOBATO. (I WAS NOT INFORMED OF THE IMMISSION IN THE INAUGURATION) I DON'T KNOW THIS TERRAIN	PARTIAL EXPROPRIATION. IPTU WITH 166,772.37M², OF WHICH 48.39M² FOR EXPROPRIATION OF LAND AND 168.47M² FOR EASEMENT OF THE SUSPENDED RAILWAY LINE. WAIT FOR DEFINITION	-	-	-	-	-	-

Fonte: CPTM, 2024.