



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

EXHIBIT II.A: ENGINEERING PROJECTS FOR CIVIL VENTURES



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PART IB: MANDATORY BIM MODELING GUIDELINES

PART IC: MANDATORY GUIDELINES FOR CIVIL ENGINEERING PROJECTS

**PART II: CONCEPTUAL/REFERENTIAL ENGINEERING PROJECTS AND DESCRIPTIVE
MEMORANDUMS FOR CIVIL VENTURES**

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PART IA – MANDATORY GENERAL PROJECT GUIDELINES

The SERVICES to be granted to the private sector under the Public-Private Partnership (PPP) regime consist of:

- i. The SERVICE of LINE 11;
- ii. The SERVICE of LINE 12;
- iii. The SERVICE of LINE 13; and
- iv. The AIRPORT EXPRESS SERVICE.

The SERVICES encompass the construction, expansion, adaptation, conservation, maintenance, and operation of the CONCESSION object. The VENTURES referred to in this EXHIBIT are detailed in TABLE 1 and are mandatory for implementation.

This EXHIBIT presents the rules and guidelines applicable to the execution of the VENTURES by the CONCESSIONAIRE, covering (i) the development of projects and PHYSICAL-EXECUTIVE SCHEDULES by the CONCESSIONAIRE and (ii) the characterization of each of the VENTURES.

In EXHIBIT II.E, the procedure for CERTIFICATION or APPROVAL, as applicable, of each of the VENTURES is established, as well as the process for non-objection by ARTESP, receipt of the VENTURES, and the CONCESSIONAIRE's responsibility for the completed works.

The rules and guidelines provided herein aim to ensure the compatibility of the VENTURES with the standards of quality, modernity, comfort, and safety that will be offered to USERS.

1. IMPLEMENTATION OF SERVICES

The implementation of the SERVICES is guided by the priority use of the railway right-of-way of LINES 11, 12, 13, and the AIRPORT EXPRESS SERVICE, exceptionally occupying publicly ceded and/or negotiated areas with the affected municipalities, MRS, and DNIT, as well as through expropriation of private areas.

The proposed routes and locations of the VENTURES outlined in the CONCEPTUAL/REFERENTIAL PROJECTS may be altered by the CONCESSIONAIRE, subject to Clause 20.1.3 of the AGREEMENT.

The CONCESSIONAIRE may develop alternative proposals to the mandatory items, in accordance with the approval process set forth in EXHIBIT VIII, which shall be subject to CERTIFICATION by the IMPLEMENTATION CERTIFIER, supporting the assessment of non-objection by ARTESP.

2. MANDATORY GENERAL GUIDELINES

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2.1. The following listed items, the responsibility of the CONCESSIONAIRE, are highlighted as mandatory general guidelines to be complied with in all VENTURES of this EXHIBIT:

- i. The conception and detailing of the BASIC and EXECUTIVE PROJECTS of the VENTURES, such as stations, maintenance complexes, yards and maintenance bases, footbridges, underpasses, OAEs, track fencing, PERMANENT TRACK, OVERHEAD TRACTION NETWORK, signaling systems, CCO, telecommunications systems, power systems, as well as "as built" of the VENTURES and existing assets, using BIM (Building Information Modeling) at any stage of the asset's life cycle.
 - a. The conception and detailing of the BASIC and EXECUTIVE PROJECTS must duly consider all the elements and civil works inherent to the proper and safe provision of the SERVICES, such as obligations related to the PERMANENT TRACK, systems, operation, including third parties, in order to avoid, whenever possible, the need to redo the VENTURE due to obligations already foreseen in the AGREEMENT and its EXHIBITES.
 - b. The procedures to be observed for the elaboration of the BASIC and EXECUTIVE PROJECTS with BIM resources, with the presentation of parametrized elements and constructive information, updatable and maintained throughout the life cycle of the VENTURES carried out by the CONCESSIONAIRE, are described minimally in Part I.B of this EXHIBIT.
 - c. The CONCESSIONAIRE shall submit the BASIC and EXECUTIVE PROJECTS in BIM for analysis by the IMPLEMENTATION CERTIFIER, expressing its conceptualization and characterization clearly, involving all elements of the projects of the VENTURES, resulting in EXECUTIVE PROJECTS, with all INTERFERENCES already analyzed and coordinated among the various specific projects and other VENTURES, resolved and with all their interfaces well defined, in addition to composing the descriptive memorial based on the information contained in the BIM Model.
- ii. The CONCESSIONAIRE shall develop the BASIC PROJECT and the EXECUTIVE PROJECT, whether for modernization, expansion, functional resizing, requalifications or civil, structural adjustments, removal of interferences, architecture, finishing, visual communication, urbanization and landscaping, observing the technical documentation provided in this EXHIBIT and providing for:
 - a. Compliance with the SEAT AVAILABILITY PLAN as provided for in EXHIBIT III.A;
 - b. The track plan that fully meets the train interval (project headway) provided for each of the LINES to operate in accordance with the guidelines of EXHIBIT

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II.C, as well as the new configuration of the tracks built after the implementation of the VENTURES in Part II of this EXHIBIT; and

- c. The track plan based on the new proposed operational loops to meet future demand, as well as parking lots and yards, train washers, workshops, shelters, and other maintenance and operation units, and any operational contingency resources, SEAT AVAILABILITY PLAN, and PERFORMANCE INDICATORS.
- iii. Comply with the technical standards and current legislation at the federal, state, and municipal levels, preserving, mandatorily, the project quality in all aspects, covering functionality, operation, and implementation, observing the performance of equipment, systems, and civil works, and emphasizing compliance with the following guidelines in the projects to be developed and/or revised:
 - a. Operational and personal safety;
 - b. Functionality and suitability for people with disabilities and reduced mobility;
 - c. Economy in the execution of works, conservation, and operation;
 - d. Use of efficient construction methods and technologies;
 - e. Agility in the execution of the work;
 - f. Minimization of interference with environmental and territorial aspects (social diagnosis and urban insertion, contaminated areas, vegetation, water resources, historical, cultural, and archaeological heritage, noise and vibrations, waste and effluents, and expropriation needs), in compliance with the provisions of EXHIBIT IV;
 - g. Mitigation of environmental and social impacts provided for in EXHIBIT IV;
 - h. Project compatibility, in the case of buildings, with land use and occupancy laws and guidelines, and the preparation of documentation for approval by the competent municipal authorities; and
 - i. Forecast for the installation of pollution control systems and equipment in maintenance areas, storage, and generation of hazardous waste, such as, for example, flammable materials, diesel oil, batteries, solvents, paints, oils, and greases, among others;

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- iv. Use sustainable technologies;
 - v. Observe the rules for processing and approval of technical documents and relevant installations, when necessary, with the supplying, controlling, and/or supervising bodies, as well as observe the guidelines set forth in the agreements entered into with the municipalities presented in EXHIBIT XI;
 - vi. Comply with the guidelines defined in Part IA, Part IB, and Part IC of this EXHIBIT;
 - vii. Provide accessibility in the stations and in all buildings and their accesses in accordance with accessibility standards, with emphasis on NBR 9,050, NBR 16,537, and NBR 14,021. It must also observe the requirements established in the Commitment Adjustment Term No. 09/99, Appendix 5, as set forth in EXHIBIT XI, incorporating it into the solutions in the projects and works, ensuring accessibility for PASSENGERS and USERS in the VENTURES;
 - viii. Provide comfort and safety conditions for own and outsourced employees, in accordance with the regulatory standards of the Ministry of Labor and Employment, notably NRs 10 and 24;
 - ix. Obtain and/or renew the Fire Safety and Prevention Certificate (AVCB) for all buildings of the VENTURES and others within the CONCESSION AREA. The buildings must be delivered with approval and inspected by the São Paulo Fire Department - CBPMESP, as appropriate; and
 - x. Fulfill the commitments set forth in the documents incorporated in EXHIBIT XI, including the MRS-CPTM AGREEMENT and instruments entered into with the municipalities served by the LINES.
- 2.2. In all stations, including those not listed in Part II of this EXHIBIT where the SERVICES operate, as well as other buildings and right-of-way, it is a general rule for maintenance and conservation that these be, whenever necessary, refurbished, adapted, or reconstructed, in order to ensure their operability and functionality, their conservation and cleanliness in both visual aspects and in terms of safety, comfort, convenience, accessibility, and usefulness for USERS, employees, and PASSENGERS, observing all the mandatory items in EXHIBITES II.

3. VENTURES

In Table 1 below, the VENTURES are listed by SERVICE (LINE 11, LINE 12, and LINE 13), including the AIRPORT EXPRESS SERVICE, to facilitate their identification. The identification of the VENTURES followed, as a rule, the use of 3 (three) uppercase letters, followed by 3 (three) sequential numbers, per action, as an example: Station - STA 001.

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This EXHIBIT deals with specific VENTURES related to stations, parking lots, maintenance complexes and bases, current art works (OACs), special art works (OAEs), footbridges, underpasses and overpasses, containment works, and track fencing, as the subject of this EXHIBIT.

The VENTURES related to OVERHEAD TRACTION NETWORK and PERMANENT TRACK are specified in EXHIBIT II.B.

Table 1: VENTURES

IDENTIFICATION AND NUMBERING TABLE OF VENTURES										
DESIGNATION	LINE	SECTION(KM)	STATIONS(STA)	BASES AND YARDS (YRD)	CURRENT ART WORK (CAW)	SPECIAL ART WORK (SAW)	FOOTBRIDGES (FTB)	UNDERPASSES AND OVERPASSES (UPO)	CONTAINMENT WORKS (COW)	TRACK FENCING (TRF)
Palmeiras-Barra Funda Station	11	03+686	STA 001							
Capistrano de Abreu and Luigi Greco Streets Footbridge	11						FTB 001			
Bom Retiro Station	11	02+100	STA 002							
Luz Maintenance Complex	11			YRD 001						
Luz Station	11	00+000	STA 003							
Pari Footbridge	11						FTB 001			
Bucolismo Street Footbridge (listed building)	11						FTB 001			
Nova Footbridge	11						FTB 001			
Brás Station	11	02+243	STA 004							
Maintenance Workshops	11			YRD 002						
Eng. São Paulo Maintenance Complex	11			YRD 003						
Test Track	11			YRD 004						

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Tatuapé Station	11	06+579	STA 005							
Santa Tereza Footbridge Villa	11						FTB 001			
Corinthians-Itaquera Viaduct Complex Footbridge	11						FTB 001			
Artur Alvim Maintenance Base	11			YRD 005						
Corinthians-Itaquera Station	11	18+174	STA 006							
Damião Garcia Footbridge (formerly Vila Campanela)	11						FTB 001			
Dom Bosco Station	11	20+563	STA 007							
José Bonifacio Station	11	22+327	STA 008							
CEU Jambreiro Underpass	11							UPO 001		
External Footbridge of Guaianases Station	11						FTB 001			
Guaianases Parking Tracks	11			YRD 006						
Guaianases Station	11	24+018	STA 009							
Former Guaianases Station Footbridge	11						FTB 002			
Villa Gertrudes Footbridge	11						FTB 002			
Jardim Soares Footbridge	11						FTB 002			
Lajeado Station	11	25+627	STA 010							

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Vila ABC Footbridge	11						FTB 002			
ETEC Footbridge	11	27+516					FTB 002			
Antônio Gianetti Neto Station	11	27+730	STA 011							
Pato Donald Footbridge	11						FTB 003			
Caetano Rúbio Street Underpass	11							UPO 002		
Tanquinho Neighborhood Footbridge	11						FTB 003			
Ferraz de Vasconcelos Station	11	30+073	STA 012							
Vila da Corrêa Footbridge	11						FTB 003			
Sopreter Village (also known as Perracini Village)	11						FTB 003			
Railway Bridge	11	32+240				SAW 001				
Antônio Mantarano Underpass	11							UPO 003		
Poá Station	11	33+147	STA 013							
Triângulo Footbridge	11						FTB 003			
Calmon Viana Station	11	34+360	STA 014							
Railway Bridge	11	34+540				SAW 002				
Villa Lúcia Footbridge	11						FTB 004			

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Nova Footbridge	11						FTB 004			
Suzano Station	11	37+059	STA 015							
Railway Bridge	11	37+414				SAW 003				
Hoechst Footbridge	11						FTB 004			
Jundiapéba Station	11	42+398	STA 016							
TLS Shipyard	11			YRD 007						
Train Washer	11			YRD 008						
Tunnel under Jundiapéba Station	11							UPO 004		
Nova Footbridge	11						FTB 004			
Braz Cubas Station	11	45+893	STA 017							
Access Ramp to Argeu Batalha Viaduct	11							UPO 005		
Nova Footbridge	11						FTB 004			
Novo Mogi das Cruzes Viaduct	11							UPO 006		
Novo Mogi das Cruzes Viaduct								UPO 013		
Nova Footbridge	11						FTB 004			
Mogi das Cruzes Station	11	49+158	STA 018							

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Mogi das Cruzes Maintenance Base	11			YRD 009						
Nova Footbridge	11						FTB 004			
Prefeito Bento Antônio de Oliveira Footbridge (former Maktub Supermarket)	11						FTB 004			
Estudantes Station	11	50+641	STA 019							
Novo Estudantes Viaduct	11							UPO 007		
Access Ramp to the new Cezar de Souza Viaduct	11							UPO 007		
Railway Bridge	11	52+400				SAW 004				
Cezar de Souza Station	11	54+394	STA 020							
Cezar de Souza Parking Tracks	11			YRD 010						
CEU Tiquatira Footbridge	12						FTB 005			
Engenheiro Trindade Underpass	12							UPO 008		
Vila Santo Henrique Footbridge	12						FTB 005			
Jardim Otília Footbridge	12						FTB 005			
Vila Hilda Footbridge	12						FTB 005			
USP Leste Station	12	18+068	STA 021							
Owens Illinois Footbridge (formerly Cisper)	12						FTB 006			

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Bann Química Footbridge	12						FTB 006			
Comandante Ermelino Station	12	20+103	STA 022							
Comandante Ermelino Maintenance Base	12			YRD 011						
Vila Nova União – Favela do Pantanal Underpass								UPO 009		
Papiro do Egito Street Underpass	12							UPO 010		
Santa Maura Street Underpass	12							UPO 011		
São Miguel Paulista Footbridge	12						FTB 006			
São Miguel Paulista Station	12	24+483	STA 023							
Jardim Helena - Imeri Street Footbridge	12						FTB 006			
Paulistano Park - Santa Rosa de Lima Street Footbridge	12						FTB 006			
Jardim Helena-Vila Mara Station	12	27+000	STA 024							
Jardim Fluminense Footbridge	12						FTB 006			
Jardim Helena - Pedro de Rosa Abreu Street Footbridge	12						FTB 006			
Itaim Paulista Station	12	28+952	STA 025							
Itaim Paulista Parking Tracks	12			YRD 012						
Jardim Aimoré Footbridge (Maué Mirim Square)	12						FTB 007			

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IDENTIFICATION AND NUMBERING TABLE OF VENTURES										
DESIGNATION	LINE	SECTION(KM)	STATIONS(STA)	BASES AND YARDS (YRD)	CURRENT ART WORK (CAW)	SPECIAL ART WORK (SAW)	FOOTBRIDGES (FTB)	UNDERPASSES AND OVERPASSES (UPO)	CONTAINMENT WORKS (COW)	TRACK FENCING (TRF)
Jardim São Luís Footbridge	12						FTB 007			
Jardim Margarida Footbridge	12						FTB 007			
Jardim Roman I Footbridge - João Carlos Amat Street	12						FTB 007			
Jardim Romano Station	12	30+996	STA 026							
Jardim Romano This Footbridge - Guajiru Street	12						FTB 007			
Três Pontes Stream Channelization	12	31+850			CAW 001					
Eng. Manoel Feio Parking Yard	12			YRD 013						
Jardim da Estação Footbridge (external footbridge of Eng. Manoel Feio Station)	12						FTB 007			
Vila Esperança Footbridge	12						FTB 008			
Itaquaquecetuba Station	12	35+301	STA 027							
Avenida Brasil Footbridge	12						FTB 008			
Underpass on Fernando Vasconcelos Rossi Avenue (IV Centenário Avenue)	12							UPO 012		
Centro Footbridge - Nazaré Paulista Street	12						FTB 008			
Aracaré Station	12	37+948	STA 036							
Vila Miranda Footbridge	12						FTB 008			

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IDENTIFICATION AND NUMBERING TABLE OF VENTURES										
DESIGNATION	LINE	SECTION(KM)	STATIONS(STA)	BASES AND YARDS (YRD)	CURRENT ART WORK (CAW)	SPECIAL ART WORK (SAW)	FOOTBRIDGES (FTB)	UNDERPASSES AND OVERPASSES (UPO)	CONTAINMENT WORKS (COW)	TRACK FENCING (TRF)
Vila Jaú Footbridge	12						FTB 008			
- Residential Alvorada Footbridge - Peru Street	12						FTB 008			
Alvorada Footbridge Residency - Ibar Street	12						FTB 008			
Calmon Viana Maintenance Base	12			YRD 014						
Cangaíba Station	13		STA28							
Engenheiro Goulart Station	13	15+438	STA29							
Bonsucesso Yard	13			YRD 015						
Guarulhos-Cecap Station	13	22+600	STA30							
Guarulhos Airport Station	13	24+235	STA31							
L13 Bonsucesso Extension Viaduct	13					SAW 005				
Eucalyptus Garden Station	13	26+100	STA32							
São João Station	13	29+500	STA33							
St. John's NATM Tunnel	13					SAW 006				
Presidential Envoys Station	13	33+400	STA34							
Bonsucesso Station	13	34+600	STA35							
Bonsucesso Parking Yard	13			YRD 016						

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IDENTIFICATION AND NUMBERING TABLE OF VENTURES										
DESIGNATION	LINE	SECTION(KM)	STATIONS(STA)	BASES AND YARDS (YRD)	CURRENT ART WORK (CAW)	SPECIAL ART WORK (SAW)	FOOTBRIDGES (FTB)	UNDERPASSES AND OVERPASSES (UPO)	CONTAINMENT WORKS (COW)	TRACK FENCING (TRF)
Gabriela Mistral Railway Bridge	13					SAW 007				

PART IB – MANDATORY BIM MODELING GUIDELINES

The development of projects for the VENTURES indicated in EXHIBITES II.A, II.B, and II.C must be conceived and detailed using Building Information Modeling (BIM), as well as the "as built", observing these guidelines, which in summary is defined as a set of integrated technologies and processes that allow the creation and updating of digital models of a construction in a collaborative manner, serving all those involved in the VENTURES, at any stage of the asset's life cycle.

The presentation of technical documentation with BIM objects should be available for use, at the discretion of ARTESP, observing the technical specifications regarding the open IFC (Industry Foundation Classes) format for general and specific requirements by discipline, as registered by national and international regulatory bodies, specifically the International Organization for Standardization (ISO), without loss of information and properties of the elements, in relation to the original model.

BIM modeling should observe the standardization and presentation of elements that make up the various disciplines of their architectural and complementary projects, at their respective levels of development (ND or LOD), allowing for their printing, and delivered in IFC 2x3 or IFC4 formats - as defined by ISO-PAS16739/2013 - and in the original modeling software format, separated by discipline.

The project phases should present the following NDs (Level of Development) or LODs (Level of Development):

- i. Project conception: LOD 0;
- ii. Preliminary Study: LOD 100;
- iii. Preliminary Design: LOD 200;
- iv. Legal Design: LOD 300;
- v. Basic Design: LOD 350;
- vi. Executive Design: LOD 400;
- vii. Completed work (as built): LOD 500.

The models of complementary disciplines should be "linked" to the architecture model through the sharing of coordinates, in order to allow the view of an integrated central model between disciplines and VENTURES.

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The project phases associated with their level of development in a cumulative manner, from the conception phase to completion and the generation of construction documentation, must record each constructive element enhanced with its geometric and non-geometric properties.

The drawings and quantities should be derived from the BIM model, in addition to coordination between disciplines.

In the case of texts and spreadsheets, they should be prepared in Microsoft Office Word and Excel software in the most recent version that allows this compatibility, presented in the corresponding formats ("docx" or "xlsx") as well as in "pdf" format, without security locks, to allow full editing.

The projects should be developed using the UTM SIRGAS 2000 coordinate system, a global position coordinate system, or another officially adopted system, allowing the insertion of the project in exact position, elevation, and angles when linked to other software, enabling interoperability and global coordination of projects.

Electronic files of all phases of project development, implementation, and management in BIM and their assets, including updates by "as built" and changes by asset lifecycle maintenance involved in the CONCESSION object and other applicable obligations, should be submitted to ARTESP.

It is emphasized that for existing assets and INFRASTRUCTURE, BIM modeling must be carried out and updated by "as built", with the CONCESSIONAIRE conducting the survey through laser scanning or similar technologies that allow modeling of installations based on the point cloud.

PART IC – MANDATORY GUIDELINES FOR VENTURE PROJECTS

1. MANDATORY GUIDELINES FOR PROJECT CONCEPTION

The CONCESSIONAIRE shall develop all necessary projects for the execution of the VENTURES, including: (i) BASIC PROJECTS; and (ii) EXECUTIVE PROJECTS.

In the conception and development of any projects, the CONCESSIONAIRE must observe: (i) the guidelines set forth in this EXHIBIT; (ii) the guidelines in the other EXHIBITES; and (iii) the relevant legislation and regulations for project execution (environmental, related to civil works execution, architecture, PERMANENT TRACK, SYSTEMS, etc.), mandatorily preserving the quality and timeliness of the project in all aspects, covering the performance of equipment, systems, and works.

The IMPLEMENTATION CERTIFIER will verify the provisions in items 1 and 2 of Part IA when issuing CERTIFICATION, in accordance with this item.

All technical documentation must be submitted by the CONCESSIONAIRE in Portuguese, and the content of the technical project documents and their coding must comply with the guidelines set forth in the AGREEMENT EXHIBITES.

It is the responsibility of the CONCESSIONAIRE to take all necessary measures to obtain approval for projects, technical documents, installations, and works, as well as authorization from all entities involved, particularly regarding urban interventions and the protection of historical-cultural, environmental, and intellectual property, necessary for the execution of the VENTURES, from the relevant supplying, controlling, or supervising entities, including: (i) Road System Operation Departments; (ii) Traffic Engineering Companies; (iii) Fire Department; (iv) Secretariats of Environment, Urban Planning, and Public Works; (v) Historical Heritage Conservation and Preservation Agencies (CONDEPHAAT, IPHAN, and others); (vi) National Civil Aviation Secretariat; (vii) National Civil Aviation Agency; and (viii) other necessary municipal, state, and federal institutions and bodies.

Any and all charges related to project approvals, in any entity or instance, including any changes resulting from these approvals, are the responsibility of the CONCESSIONAIRE.

All technical documents must be made available to ARTESP and kept updated by the CONCESSIONAIRE in digital format, including in PDF format, as well as in editable files, in their original formats, BIM files, and their databases. The latest version provided by the CONCESSIONAIRE must represent the "as built" of its VENTURES.

The projects with their technical documents to be developed by the CONCESSIONAIRE must minimally include the following items:

- i. Elaboration of cadastral surveys, civil works, and EXISTING INTERFERENCES that are close to the scope area (envelope);

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- ii. Architecture, finishes, urbanization, landscaping, and visual communication;
- iii. Engineering projects, including structures, foundations, geotechnics, expropriations, road system, hydraulic, sanitary, drainage, electro-electronic and systems installations, such as signaling and telecommunications;
- iv. Rolling stock manufacturing projects;
- v. Descriptive memorials, according to each type, observing the following:
 - a. Calculation memorials of quantities must be related to the budget spreadsheets and the constructive assumptions and hypotheses that originated them;
 - b. Implementation memorials should contain constructive methods, with comments on difficulties, sequence, and care for their execution; and
 - c. Calculation memorials should briefly present the dimensioning of the structural elements of temporary and permanent works.

The CONCESSIONAIRE must ensure that all projects, as well as their revisions, even during the execution of the VENTURES, comply with the current standards, manuals, patterns, and technical specifications, and contain the proper Technical Responsibility Annotations.

In the elaboration of its projects, the CONCESSIONAIRE must consider the following guidelines:

- i. Adopt concepts of resource economy and sustainability, and in accordance with the relevant legislation, observing the requirements already established in the existing Environmental Operation LICENSES;
- ii. Ensure the environmentally appropriate disposal of all waste generated in the operational structures (stations, power substations, switchgear, and other support units), aiming not to incur in the provisions of article 54 of Federal Law No. 9,605/1,998, which provides for criminal and administrative sanctions derived from conduct and activities harmful to the environment;
- iii. Include the regularization of sanitary sewage in improvement, renovation, and reconstruction projects of the VENTURES and structures, with the following: (i) sanitary sewers must be connected to the public collection and treatment system or directed to their own treatment systems that allow compliance with the emission standards established in article 18 of the State Law (SP) No. 997/1976, approved by State Decree (SP) No. 8,468/1976, as well as in article 21 of CONAMA Resolution No. 430/2011; and (ii) if the own systems are composed only of septic tanks, they must be

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complemented with anaerobic filters or another treatment system that guarantees compliance with the aforementioned emission standards;

- iv. Regarding flooding and inundation phenomena that may influence and affect the CONCESSION AREA, operational safety, and its CONCESSION ASSETS, the CONCESSIONAIRE must provide in the BASIC and EXECUTIVE PROJECTS improvement works for contingency actions in flooding and inundation and their respective preventive and corrective actions, such as improvements in the internal drainage system, with the cleaning of public areas and stormwater galleries, installation of gates, and operation of suction pumps, among other measures;
- v. Arrange for the proper disposal of identified rubble, in accordance with current legislation, as well as contaminated waste, if any.
- vi. Technical solutions with their justifications, including economic and sustainable aspects, should be present not only in the architectural project but also in the structural, energy, hydraulic, lighting, and other calculations. Rainwater harvesting, for example, for non-potable uses such as toilets, gardens, and floor washing, are solutions that address sustainability issues, always observing local legislation;
- vii. The CONCESSIONAIRE will be responsible for implementing Visual Communication in all civil installations, to be carried out preliminarily within a period of up to 3 months from the COMMERCIAL OPERATION START, during which the name and logo of CPTM should be replaced by those of the CONCESSIONAIRE, even if temporarily, with the definitive implementation of visual communication at the end of the construction period of each of the VENTURES, existing infrastructure stations not covered in this EXHIBIT, as well as those incorporated by INFRASTRUCTURE TO BE BUILT;
- viii. Provide for the construction of Effluent Treatment Plants (ETPs) and water reuse in all installations, whether they are: washers, shelters, complexes, and maintenance bases;
- ix. Provide for the registration or implementation of the water and sewage system in all civil VENTURES of the CONCESSION, executing regularization and eliminating irregular intakes and discharges, making the necessary connections with the responsible concessionaire network. The known water and/or sewage connections are listed in item 9 of EXHIBIT I. Regarding the sections of track extensions where new connections should be made, the CONCESSIONAIRE must enable such connections to public networks, as provided for in this Exhibit, observing the environmental issues set forth in EXHIBIT IV;
- x. Incorporate the use of equipment for selective collection of solid waste and the preferential use of construction materials with lower environmental impact;

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- xi. Address accessibility issues, with all accesses to all stations and platforms allowing the entry of people with disabilities or reduced mobility. Circulations in public areas will be equipped, according to local volumes and conditions, with ramps, elevators, and fixed stairs (which must be equipped with channels for bicycle transportation), always in compliance with accessibility standards. Also aiming for the comfort of PASSENGERS throughout the CONCESSION AREA, boarding and alighting platforms will always be covered.
- xii. Design and relocate all INTERFERENCES resulting from the implementation of the VENTURES;
- xiii. Accessible pedestrian transpositions must be implemented at all stations, crossing the CONCESSION AREA in a "non-paid" area for circulation between contiguous and neighboring roadways;
- xiv. The dimensioning and distribution of circulation and waiting spaces in the stations, with reference to USERS and PASSENGERS, must consider the highest demand projections foreseen for the concession period. They must primarily consider the guidelines established by CBPMESP for emergency exits and escape routes, notably IT11 and IT45, the guidelines established by accessibility standards, notably NBR9050, NBR14021, and NBR16537, and other relevant legislation. Below are some parameters to be followed:
- xv. Accesses and circulation areas:
 - a. The width dimensioning of corridors and walkways must consider, at a minimum, 3,000 people/m/hour and 2.00 m;
 - b. The width dimensioning of fixed stairs must consider, at a minimum, 2,000 people/m/hour and 1.50 m;
 - c. The dimensioning of escalators must consider a flow rate of at least 4,500 people/hour/direction in 1 m of useful width;
 - d. The width dimensioning of ramps must consider, at a minimum, 2,500 people/m/hour and 2.00 m.
- xvi. Mezzanine:
 - a. The flow rate for the access control lines must consider 1,200 people/unit/hour, with provision for accessible access for people with disabilities (PWD);

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- b. The accumulation area in front of the access control lines must contain 20% of the people passing in 3 minutes (density: 2.50 people/m²);
 - c. At least one access gate with a minimum width of 0.90m must be provided next to the access control lines;
 - d. The quantity of recharge and ticketing equipment must accommodate a queue with a maximum length of 5.00 m and/or corresponding to a waiting time of 3 minutes (minimum: 3 pieces of equipment);
 - e. Provision of available area for notice board.
- xvii. Platform:
- a. Consider a minimum length of 190 m, and a maximum occupancy rate of 3 people per m² during peak hours, disregarding the safety zone.
 - b. The dimensioning and distribution of operational and technical areas and environments intended for employees, collaborators, and third parties at the stations must primarily consider the guidelines established by CBPMESP for emergency exits and escape routes, notably IT11 and IT45, the guidelines established by accessibility standards, notably NBR9050, NBR14021, and NBR16537, the guidelines established by the labor legislation of the MTE, notably NR08, NR10, NR 24, and NR 35, and other relevant legislation.
- xviii. The maintenance and operation support facility roads, such as workshops, shelters, parking lots, and washers, must be provided with overhead line sectioning with safety locking.

2. GUIDELINES FOR MANDATORY TECHNICAL PROJECT DOCUMENTATION

2.1. BASIC PROJECT

The BASIC PROJECT is the set of necessary and sufficient elements, with an appropriate level of precision, to characterize a work or service, developed based on the indications of preliminary technical studies, ensuring the technical feasibility and proper treatment of the environmental impact of the VENTURE, and enabling the evaluation of the cost of the work and the definition of the executive methods, operational impacts, and execution period.

The BASIC PROJECT must contain the following elements:

- i. Development of the chosen solution in a way that provides a comprehensive view of the work and clearly identifies all its constituent elements;

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- ii. Global and localized technical solutions, sufficiently detailed to minimize the need for reformulation or variants during the phases of elaboration of the EXECUTIVE PROJECT and the execution of the works and assembly;
- iii. Identification of the types of services to be performed and materials and equipment to be incorporated into the work, as well as their specifications to ensure the best results for the VENTURE;
- iv. Information enabling the study and formulation of construction methods, temporary installations, and organizational conditions for the work;
- v. Preparation of cadastral drawings, with plans and sections, of the civil works;
- vi. Architecture, finishes, urbanization, landscaping, and visual communication;
- vii. Engineering projects, including structures, foundations, expropriations, road system, PERMANENT TRACK, and overhead traction network, sanitary hydraulic, electro-electronic, and system installations;
- viii. Implementation project with the proper urban insertion, highlighting road interventions and resources for integration with other modes; and
- ix. Demonstrate the articulation of the various disciplines of the BASIC PROJECT involving civil works and systems, observing the EXHIBITES of this AGREEMENT and agreements entered into and included in EXHIBIT XI.

2.1.1 Expropriation and Land Release

This section provides project guidelines involving expropriation and land release. For its complete application, EXHIBIT IV and its Appendix 4 must be followed, as well as the regulations set forth in the AGREEMENT.

The acquisition and release of areas process is understood as the set of actions and documentation development aimed at clearing all the properties necessary for the implementation of the VENTURE, such as:

- i. Management with the entities involved;
- ii. Formalization of agreements;
- iii. Relocation of public and private infrastructures;

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- iv. Removal of irregular occupations and resettlement of socially and economically vulnerable populations; and
- v. Disaffection of public areas, expropriations, declaration of public utility, among others.

The CONCESSIONAIRE must develop engineering technical studies to support the processes of obtaining areas for the implementation of the VENTURES, including at least the following items:

- i. Mosaic of necessary areas;
- ii. Descriptions and evaluation according to standards;
- iii. Individual property records; and
- iv. Registry of vulnerable populations, if necessary.

2.1.2 Indication of Interference Relocation

This involves the preparation of interference survey drawings indicating all utility networks, both public and private, to be relocated.

The CONCESSIONAIRE must develop a project for the relocation of interferences to minimize their impact on buildings, railways, urban areas, and road systems. It should also indicate the relocation of pipelines, interceptors, mains, sidewalks, poles, and any installations that may interfere with the execution or future implementation of the work.

The projects for relocating the interferences must be presented, indicating their new positioning and the engineering solution adopted, approved by the concessionaires.

2.1.3 Compatibility with railway signaling

The BASIC PROJECT must be developed in accordance with the modifications planned in its track plan, in accordance with the provisions of EXHIBIT II.C.

2.1.4 Compatibility with the telecommunications system

The BASIC PROJECT and specifications must be developed based on the sizing and technical standards, considering the type of application of the different installations, as per EXHIBIT II.C.

The project includes: preliminary alternative studies, equipment sizing, and their installation points. All technical documentation generated must be provided by the CONCESSIONAIRE to ARTESP.

2.1.5 Urbanism and Landscaping

The basic urbanization project must be presented together with the landscaping project, including information on roads, pavements, pedestrian walkways, flower beds, finishes, vegetation, tree locations, shrubs, and urban equipment (mailboxes, telephone booths, bus shelters, newsstands, trash cans, and others).

When developing the project details, the CONCESSIONAIRE must consider their urban integration studies with the aim of addressing the main deficiencies and solving problems related to the articulation and connectivity of SERVICES in the urban environment in which it is located. When presenting the project for certification by the INDEPENDENT AUDITOR and non-objection from ARTESP, the urban integration studies must be part of the set of documents.

The project must cover the road system affected by the works of the VENTURES, including aspects related to surface drainage in plans, profiles, details of devices, and others. The drainage studies and projects must comply with current legislation, including environmental pollution control regulations, as well as meet the recommendations set forth in the Macro-Drainage Master Plan of the Upper Tietê Basin and relevant macro-drainage in the eastern quadrant of the São Paulo Metropolitan Region.

2.1.6 Ventilation and Air Conditioning System

The CONCESSIONAIRE must evaluate each area, sizing the ventilation and air conditioning system according to the type of activity, use, and occupancy levels of the facilities.

At the CONCESSIONAIRE's discretion, the ventilation and air conditioning system may be centralized or individualized by occupancy area, taking into account technical, environmental, and economic aspects.

2.1.7 Armored Ticket Booths

In the implementation of the VENTURES that include ticket booth reconfiguration, the CONCESSIONAIRE must consider all security aspects involving employees, PASSENGERS, and pedestrians.

2.1.8 Bike Racks and Bicycle Parking

In the implementation of the VENTURES that include the installation of bike racks or bicycle parking, the CONCESSIONAIRE must implement solutions that meet the demand and best urban integration practices, lighting, and landscaping, observing all safety aspects.

2.1.9 Solar Energy

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For the implementation of an energy generation system using photovoltaic panels in the adjustments, reconstructions, and construction of new stations, the CONCESSIONAIRE must implement a system that meets the best practices for this type of installation, considering maintenance and safety aspects.

2.2 EXECUTIVE PROJECT

The EXECUTIVE PROJECT consists of all necessary and sufficient elements for the complete execution of the work, in accordance with applicable municipal, state, and federal legislation, as well as the current standards of the Brazilian Association of Technical Standards, and must be developed based on the BASIC PROJECT.

2.2.1 Electro-Electronic and Systems Installations

These will be detailed based on the BASIC PROJECT, covering, for all systems and equipment contained therein, but not limited to, descriptive, calculation and dimensioning memorials, assembly and installation drawings, cable routing, dry network, holes and embedded items, dimensional drawings of boards and panels, room layouts, boards, panels, and cabinets, and their interconnections.

All information involving the electro/electronic systems and equipment described and referenced above must be detailed and complemented: sizing and routing of interconnection cabling, dimensional drawings of boards/panels/equipment, their weights, and their impact on the civil/structural/architectural aspects, compliance with the electricity concessionaire for defining medium voltage power input, equipment assembly details, accommodation of interferences/interfaces with civil, hydraulic, architectural, and other projects.

2.2.2 Instrumentation

This involves instrumenting and monitoring potential geological and/or geotechnical impacts, among others, to ensure complete safety for the CONCESSION ASSETS and people in the CONCESSION AREA, considering:

- i. Identification of adjacent or overlying structures that may be affected by the works and possible data collection from these structures; and
- ii. Instrumentation project containing the location of settlement pins, reading frequency, and critical values of differential settlements.

2.3 ENVIRONMENTAL ACTIVITIES

These must be carried out in accordance with the regulations, rules, and legislation, including EXHIBIT IV, the obligations established in the Preliminary Environmental License (LP), Installation Environmental License (LI), Operation Environmental License (LO), and other requirements of the agencies for the preservation of heritage sites, among others.

2.4 STANDARDS, REGULATIONS, AND LEGISLATION

As civil works, finishes, visual communication, urbanization, and landscaping must be designed, implemented, and executed in compliance with the technical requirements to ensure their functional and operational performance as established in the AGREEMENT and its EXHIBITES, while also observing the standards and regulations of the organizations listed below, as well as the regulations and legislation at the municipal, state, and federal levels in force at the time of construction.

Whenever the technical and functional and operational performance requirements established by the tender documents are more restrictive than those stipulated by the mentioned Standards, the former must be considered.

In cases of differences between standards that may generate doubts or conflicts regarding the prescriptions for the same object, the more restrictive standard will prevail, i.e., in favor of safety and durability.

When standards are silent or there is no specific mention, other standards from national or international organizations may be used, provided they have public faith and recognized authority, ensuring a supply of quality not inferior to that achieved with the cited standards. In this case, the standards used must be provided to ARTESP in Portuguese for evaluation, and, if necessary, for its non-objection.

All safety and accident prevention standards and regulations in force in Brazil must be respected.

The standards must be considered in their current versions at the time of project development.

For the purposes of design, construction, raw materials, manufacturing, testing, inspection, installation, and assembly, the standards and recommendations established by the following regulatory entities must be followed:

The applicable standards are as follows:

AASHTO – American Association of State Highway and Transportation Officials;
AISI – American Iron and Steel Institute;
AISC – American Institute of Steel Construction;
ANSI – American National Standards Institute;
ASTM – American Society for Testing and Materials;
AWS – American Welding Society;
BSI – British Standards Institution;
CEN – European Committee for Standardization;
DIN – German Institute for Standardization;
IEC – International Electrotechnical Commission;

ISF – Railway Service Instructions of DNIT (National Department of Transport Infrastructure);
ISO – International Standard Organization;
IT – Technical Instruction of CBPMESP (São Paulo State Military Police Fire Department);
NBR – Brazilian Standard of ABNT (Brazilian Association of Technical Standards);
NFPA – National Fire Protection Association;
NM – Mercosur Standard; and
NR – Regulatory Standard of MTE (Ministry of Labor and Employment).

2.5 INTERFACE BETWEEN SYSTEMS AND CIVIL WORKS

The installations, pathways, ducts, and volumetric solutions to house the equipment must be considered in the solutions provided in the civil, architectural, and PERMANENT TRACK projects.

The architecture, civil works, PERMANENT TRACK, overhead line, and the new technologies adopted in the signaling, telecommunications, and other systems must be compatible to enable the installation of the equipment, considering that:

- i. In civil works, infrastructure for the installation of all systems and equipment according to the requirements to be developed must be provided;
- ii. All necessary system infrastructure for protection against leakage current, protection against atmospheric discharges, holes and embedded items, and fire safety must be included in the civil project and must comply with the system guidelines and specifications;
- iii. Ventilation ducts must be considered in the architectural project so that their integration and functionality with other systems are not compromised;
- iv. The location of technical rooms and cable risers between levels should consider the shortest distance between the technical room and the equipment to be interconnected;
- v. In high-ceiling environments, infrastructure for the installation and maintenance of equipment must be considered;
- vi. Cable basements should be provided for technical rooms and locations with a large volume of installations;
- vii. Access to the cable basement and equipment installation locations must be accessible by stairs that allow for the transportation of equipment and instruments;
- viii. The existence of risers for the passage of cables/ducts should be provided, and if located in public areas, they must be equipped with removable enclosures;

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- ix. The installation of embedded conduits should be provided in installations in public areas;
- x. Niches or physical spaces for equipment installation should be provided along the track and in emergency walkway areas (wayside boxes, impedance bonds, track switches, switch machines, signaling equipment, emergency lighting, and others) to avoid obstructing circulation areas;
- xi. Enclosures should be provided at integration stations with other lines, in order to enable the operational independence of each station;
- xii. Interfaces with ongoing projects, systems, and works by third parties should be provided, both those specified in EXHIBIT II.D, and any ongoing works at the time of the implementation of the VENTURES.

PART II – ENGINEERING PROJECTS FOR CIVIL VENTURES - MANDATORY AND CONCEPTUAL/REFERENTIAL ITEMS

The project items listed in this Part II as VENTURES are mandatory and must also comply with the provisions of this EXHIBIT.

The CONCESSIONAIRE must execute the VENTURES in accordance with:

- i. The INVESTMENT PLAN, which has been non-objectioned by ARTESP and previously CERTIFIED;
- ii. The deadlines established in the PHYSICAL-EXECUTIVE SCHEDULES that have been CERTIFIED and non-objectioned by ARTESP;
- iii. The projects that have been CERTIFIED and non-objectioned by ARTESP;
- iv. The technical standards and other conditions provided for in the AGREEMENT, in this EXHIBIT, in the other EXHIBITES of this AGREEMENT, and/or in the governing legislation;
- v. The guidelines and premises established in EXHIBIT IV.A for obtaining relevant environmental licenses and authorizations, approvals from historical heritage bodies, if applicable, as well as project approvals as required by relevant legislation, in addition to other necessary permits and authorizations;
- vi. The necessary authorizations for the execution of the VENTURES, in accordance with the EXHIBITES of the AGREEMENT; and
- vii. The Fire Safety Certificate (AVCB) or updating the existing AVCB, in accordance with the guidelines of EXHIBIT III.B.

1 DESCRIPTION OF VENTURES IN STATIONS

1.1 PRIORITY SHORT-TERM INVESTMENTS

VENTURES to be carried out during the PRE-OPERATIONAL PHASE, aiming to bring immediate improvements in the operation and maintenance in public access areas at the stations.

Among them, the following investments stand out:

- i. Accessibility: Adjustments to accesses such as implementation of boarding/alighting bays, pedestrian crossings, sidewalk ramps, repairs to pavements, sidewalks, floors, ramps, fixed stairs, escalators, elevators, walkways, underpasses, accessible barriers,

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tactile routes, accessible public restrooms;

- ii. Bicycles: Implementation of bike racks;
- iii. First aid: Implementation of first aid rooms;
- iv. Lighting: Internal lighting adaptation and implementation of emergency lighting;
- v. Replacement of visual communication;
- vi. Repairs to floor and wall coverings, internal/external painting, ceilings, and;
- vii. Platforms – installation of gap reducers; and
- viii. Fire escape route and fire fighting project for buildings that do not have a Fire Safety Certificate (AVCB) and will not undergo structural reconstruction or refurbishment to be developed in the first 6 (six) months of the PRE-OPERATIONAL PHASE.

1.2 VENTURES IN STATIONS

Three types of VENTURES in stations have been planned:

- i. Reform: Execution of works planned for VENTURES where the maintenance of the existing station infrastructure predominates. This includes punctual adaptation works, partial demolitions, and construction of extensions to ensure compliance with the mandatory items provided in this EXHIBIT. It may involve the execution of works in the PERMANENT TRACK and the OVERHEAD TRACTION NETWORK;
- ii. Reconstruction: Execution of works planned for VENTURES for those stations whose existing infrastructure has reached a level of degradation where reform or adaptation is not feasible to ensure compliance with the mandatory items provided in this exhibit. Thus, the predominant action is the demolition of the existing station and its reconstruction in the same location, involving the execution of works in the PERMANENT TRACK and the OVERHEAD TRACTION NETWORK;
- iii. Construction: Execution of works planned for VENTURES in which new stations are included in the railway network, whose solution and minimum construction parameters meet accessibility standards and are sufficient for obtaining and maintaining the Fire Safety Certificate (AVCB). It considers the full implementation of the station and involves the execution of works in the PERMANENT TRACK and the OVERHEAD TRACTION NETWORK.

The table below presents the VENTURES planned in stations:

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Table 2: VENTURES IN STATIONS

VENTURES IN STATIONS						
ACRONYM	STATION	TYPE OF VENTURE	CONCESSIONAIRE'S LINE/SERVICE AT THE STATION	IINTEGRATION WITH THE RAILWAY NETWORK (TRAIN = T / SUBWAY = S / LRT = V)		PASSAGE OF MRS THROUGH THE STATION-AFTER SEGREGATION
				LINE	OPERATOR	
STA 001	Palmeiras-Barra Funda	Renovation	LINE 11 and Airport Express	Line 3 (S)	Metrô	X
				Line 7 /TIM/TIC (T)	TIC Trains SA	
				Line 8 (T)	Via Mobilidade 8 and 9	
STA 002	Bom Retiro	Construction	LINE 11	Line 10 (T) - CPTM	CPTM	X
STA 003	Luz	Renovation	LINE 11 and Airport Express	Line 1 (S)	Metrô	X
				Line 4 (S)	ViaQuatro	
				Line 10 (T)	CPTM	
STA 004	Brás	Renovation	LINE 11, LINE 12 and Airport Express	Line 3 (S)	Metrô	X
				Line 10 (T)	CPTM	
STA 005	Tatuapé	Renovation	LINE 11 and LINE 12	Line 3 (S)	Metrô	X
STA 006	Corinthians-Itaquera	Renovation	LINE 11	Line 3 (S)	Metrô	
				Line 14 (V) ¹	-	
STA 007	Don Bosco	Renovation	LINE 11	-	-	
STA 008	José Bonifácio	Renovation	LINE 11	-	-	
STA 009	Guaianases	Renovation	LINE 11	-	-	
STA 010	Lajeado	Construction	LINE 11	-	-	
STA 011	Antônio Gianetti Neto	Renovation	LINE 11	-	-	
STA 012	Ferraz de Vasconcelos	Renovation	LINE 11	-	-	
STA 013	Poá	Renovation	LINE 11	-	-	
STA 014	Calmon Viana	Renovation	LINE 11 and LINE 12	-	-	X
STA 015	Suzano	Renovation	LINE 11 and LINE 12	-	-	X
STA 016	Jundiapéba	Reconstruction	LINE 11	-	-	X
STA 017	Braz Cubas	Renovation	LINE 11	-	-	X
STA 018	Mogi das Cruzes	Reconstruction	LINE 11	-	-	X
STA 019	Estudantes	Reconstruction	LINE 11	-	-	X

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VENTURES IN STATIONS						
ACRONY M	STATION	TYPE OF VENTURE	CONCESSIONAIRE' S LINE/SERVICE AT THE STATION	IINTEGRATION WITH THE RAILWAY NETWORK (TRAIN = T / SUBWAY = S / LRT = V)		PASSAGE OF MRS THROUGH THE STATION- AFTER SEGREGATION
				LINE	OPERATOR	
STA 020	Cezar de Souza	Construction	LINE 11	-	-	X
STA 021	USP Leste	Renovation	LINE 12	-	-	X
STA 022	Commander Ermelino	Renovation	LINE 12	-	-	X
STA 023	São Miguel Paulista	Renovation	LINE 12	Line 14 (V) ¹	-	X
STA 024	Jardim Helena-Vila Mara	Renovation	LINE 12	-	-	X
STA 025	Itaim Paulista	Renovation	LINE 12	-	-	X
STA 026	Jardim Romano	Renovation	LINE 12	-	-	X
STA 027	Itaquaquece tuba	Reconstruction	LINE 12	-	-	X
STA 028	Cangaíba	Construction	LINE 12 and LINE 13	-	-	X
STA 029	Engenheiro Goulart	Renovation	LINE 12 and LINE 13	-	-	
STA 030	Guarulhos-Cecap	Renovation	LINE 13 and Airport Express	-	-	
STA 031	Airport-Guarulhos	Renovation	LINE 13 and Airport Express	-	-	
STA 032	Jardim dos Eucaliptos	Construction	LINE 13	-	-	
STA 033	São João	Construction	LINE 13	-	-	
STA 034	Presidente Dutra	Construction	LINE 13	-	-	
STA 035	Bonsucesso	Construction	LINE 13	Line 14 (V) ¹	-	
STA 036	Aracaré	Renovation	LINE 12	-	-	X

¹ Line 14 is in the project phase.

The elaboration of the BASIC PROJECT and EXECUTIVE PROJECT of the VENTURES in stations by the CONCESSIONAIRE must consider as mandatory the guarantee of the following items:

- i. Consider the existing or future metro-rail integrations that share common service stations, as per Table 2, so as not to interfere with the continuity of third-party SERVICES in operation and/or not to make unfeasible the implementation of future SERVICES planned by the GRANTING AUTHORITY;
- ii. The CONCESSIONAIRE's execution methodology will consider the continuity of its own

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SERVICES, such as other lines operated by third parties and the passage of MRS freight trains through the stations, as indicated in Table 2, during and after the implementation of the VENTURES;

- iii. The station infrastructure, from its urban insertion with accesses and integrations between modes to the platforms, should be designed to meet the demand of USERS and PASSENGERS;
- iv. Accessibility for employees, USERS, and PASSENGERS from the opposite sidewalks at the crossings for access to the stations to boarding the trains;
- v. Safety and comfort for USERS and PASSENGERS;
- vi. Accessibility and compliance with the safety and comfort premises of the employees established by labor standards and legislation;
- vii. Compliance with the premises of CBPMESP for escape routes and fire fighting;
- viii. Operational and technical rooms with restricted access and dimensions suitable for the transit or transport of equipment and the provision of the SERVICES planned for each station;
- ix. Integrity of the buildings through maintenance and conservation of the building infrastructure with the execution of works that revitalize the EXISTING INFRASTRUCTURE, recovering the structural construction elements, finishes, hydraulic and electrical installations, lighting, equipment, and furniture;
- x. Implementation of ticket purchase and recharge equipment in the unpaid areas of the station;
- xi. Implementation of public toilets, including accessible ones, divided by gender, preferably in the paid areas of the stations;
- xii. Implementation of baby changing facilities in the accessible public toilets of both genders;
- xiii. In the construction and reconstruction projects of stations, as indicated in Table 2, provision should be made for bicycle parking with sufficient dimensions to meet the demand of USERS;
- xiv. In the renovation, construction, and reconstruction projects of stations, as indicated in Table 2, the access between the mezzanine and platforms must be equipped with stairs, escalators, and elevators in quantity and with sufficient dimensions to meet the

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highest projected demand for each station;

- xv. Implementation of a room for the reception of neurodivergent USERS in crisis and for people who have suffered abuse on the premises of the stations or trains;
- xvi. Execution of works for the preservation and conservation of listed assets and those of historical interest; and
- xvii. Elimination of all level crossings for vehicles and pedestrians, as well as pedestrian level crossings that connect the platforms, also known as assisted level crossings.

In addition to the items described in Parts IA, IB, and IC, the following specific project items related to the VENTURES in the stations, listed by the GRANTING AUTHORITY as mandatory, are added:

1.3 VENTURE STA 001 – REFORM OF PALMEIRAS-BARRA FUNDA STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Consider the Palmeiras-Barra Funda station as the terminal for LINE 11 SERVICES and AIRPORT EXPRESS SERVICE.
- ii. Segregate the visual and sound communication resources to serve LINE 11 and AIRPORT EXPRESS SERVICE at this station; and
- iii. Implement a system for quantifying PASSENGERS transferring between lines at this station;

1.4 VENTURE STA 002 – CONSTRUCTION OF BOM RETIRO STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Serving LINE 11 SERVICE, allowing for the passage of AIRPORT EXPRESS SERVICE and MRS and Line 10 freight trains;
- ii. Provision for connection to the future platform of Line 8;
- iii. Its implementation corresponds to the location of tangent tracks between Palmeiras-Barra Funda and Luz stations, adjacent to the west of the Eng. Orlando Murgel viaduct;
- iv. Compatibility of its BASIC AND EXECUTIVE PROJECTS with the other VENTURES planned in this EXHIBIT and in EXHIBITES II.B and II.C, as well as the commitments of the MRS-CPTM AGREEMENT;

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- v. Consider at least 2 (two) accesses, one located on Cônego Vicente Miguel Marino street and the other located on Elias Chaves street. Both must be equipped with fixed stairs, escalators, and elevators, in order to comply with accessibility legislation, allowing the USER and PASSENGER to cross the railway tracks and access the station mezzanine or the other side of the Station via a free (unpaid) area;
- vi. Two central platforms should be implemented to serve Lines 10 and 11 with all technical and operational rooms, interconnected by a mezzanine, allowing for the segregation of paid and unpaid areas and integration of both sides with pedestrian access, observing the mandatory guidelines of EXHIBIT II.B; and
- vii. Implementation of the station, with reconfiguration of the adjacent road system, including the installation of bus boarding and alighting bays within a radius of no more than 200m from the station..

1.5 VENTURE STA 003 – REFORM OF LUZ STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Comply with the premises of the historical heritage preservation agencies (Conpresp, Condephaat, and Iphan) for improvements to be made at the station;
- ii. Segregate the visual and sound communication resources to serve LINE 11 and AIRPORT EXPRESS at this station; and
- iii. Implement a system for quantifying PASSENGERS transferring between lines at this station.

1.6 VENTURE STA 004 – REFORM OF BRÁS STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. In its BASIC AND EXECUTIVE PROJECTS, partial demolitions of operational buildings are planned in the station area, near the access by Praça Agente Cícero and platforms 4 and 5, and part of the ground floor, which houses operational rooms near the access by Praça Agente Cícero, for the implementation of the VENTURES listed in EXHIBIT II.B, the responsibility of the CONCESSIONAIRE, which are mandatory for this VENTURE STA 004;
- ii. The extension of the track alongside platform 5 towards Luz station should be implemented, allowing the services of LINE 11 and AIRPORT EXPRESS to be transferred from platforms 3 and 4 to platforms 4 and 5, thus enabling the trains serving LINE 10 to use the track alongside platform 3 to access the Roosevelt yard, without interfering

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with the operation of LINE 11 and AIRPORT EXPRESS SERVICE;

- iii. Consider the Brás station as the terminal for LINE 12 SERVICES;
- iv. Comply with the premises of the historical heritage preservation agencies (Conpresp, Condephaat, and Iphan) for improvements to be made in the existing historic and listed building that houses the access by Domingos Paiva street and in the other areas of the station that constitute the surrounding area of the listed property;
- v. Implement a system for quantifying PASSENGERS transferring between lines at this station;
- vi. New escalators in both directions and elevators should be installed on the platforms of Lines 10, 11, and 12, integrated by a covered mezzanine to be expanded and sized for the highest projected demand for the station; and
- vii. All operational rooms and their environments should be renovated and rearranged to ensure healthiness, accessibility for employees, and compliance with labor legislation requirements of the Ministry of Labor, ensuring circulation with all accessibility requirements for USERS, employees, and PASSENGERS.

1.7 VENTURE STA 005 – REFORM OF TATUAPÉ STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Implement a system for quantifying PASSENGERS transferring between lines at this station.

1.8 VENTURE STA 006 – REFORM OF CORINTHIANS-ITAQUERA STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Associated projects that may relate to the Corinthians-Itaquera station, notably projects for Line 14;

1.9 VENTURE STA 009 – REFORM OF GUAIANASES STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. At least 4 (four) escalators and 2 (two) elevators should be installed between the lower mezzanine and the platforms to ensure greater comfort and flow of USERS and PASSENGERS;

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- ii. Provision should be made for a bicycle parking area with sufficient dimensions to meet the demand of USERS.

1.10 VENTURE STA 010 – CONSTRUCTION OF LAJEADO STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Divert Professor Cosme Deodato Tadeu Street for the implementation of the station platforms;
- ii. Implementation of the station, with reconfiguration of the adjacent road system;
- iii. Associated projects that may relate to the Lajeado station, notably projects for the implementation of a bus terminal adjacent to the station;
- iv. The location of its implementation should correspond to the location of tangent tracks between the Guaianases and Antônio Gianetti Neto stations, with access where the Jardim Soares footbridge currently exists, which should be demolished;
- v. Consider in its BASIC AND EXECUTIVE PROJECTS that, in the station area, the VENTURES in PERMANENT TRACK VPM 016 and in OVERHEAD LINE EQUIPMENT RDS 014 are planned, as per EXHIBIT II.B, the responsibility of the CONCESSIONAIRE, which should be mandatory for this VENTURE STA 010;
- vi. Accesses should be provided on both sides of the railway with a crossing in an unpaid area that should also provide access to the station mezzanine. Each access should be accessible and equipped with at least one fixed staircase, two escalators, and one elevator; and
- vii. Implementation of the station, with reconfiguration of the adjacent road system, including the installation of bus boarding and alighting bays within a radius of no more than 200m from the station.

1.11 VENTURE STA 011 – REFORM OF ANTÔNIO GIANETTI NETO STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Escalators should be installed between the platforms and the mezzanine in sufficient quantity to ensure service to the highest projected demand for the station.

1.12 VENTURE STA 013 – REFORM OF POÁ STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

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- i. Covering must be installed on the fixed stairs, ramps, and access footbridge to the station.

1.13 VENTURE STA 014 – REFORM OF CALMON VIANA STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Associated projects that may relate to the Calmon Viana station, notably the maintenance base project adjacent to the station, planned in the YRD 014 VENTURE, as per this EXHIBIT, the responsibility of the CONCESSIONAIRE, which is mandatory for this VENTURE STA 014;
- ii. Implementation of a mezzanine at the station with its accesses interconnecting the platforms, accommodating a control line that will allow direct access to the platforms;
- iii. Provide accessible crossing of the railway tracks in an unpaid area, which should also provide access to the mezzanine to be implemented; the access facing Avenida Brasil should be equipped with a fixed staircase, two escalators, and an elevator;
- iv. Expand and renovate the bicycle parking area to meet the demand of USERS and mitigate the impacts of flooding in this environment;
- v. Implement a system for quantifying PASSENGERS transferring between lines at this station;
- vi. Comply with the premises of the historical heritage preservation agencies (Condephaat and Iphan) for improvements to be made in the existing historic and listed building located on platforms 2 and 3, where they are currently housed; and
- vii. Demolish the structure of the existing access and rebuild it to comply with comfort and accessibility standards and to accommodate the new sets of fixed and escalator stairs that will provide access to the mezzanine and crossing footbridge.

1.14 VENTURE STA 015 – REFORM OF SUZANO STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Consider the Suzano station as the terminal for LINE 12 SERVICES; and
- ii. Implement a system for quantifying PASSENGERS transferring between lines at this station.

1.15 VENTURE STA 016 – RECONSTRUCTION OF JUNDIAPEBA STATION

All of the following are considered mandatory items for the CONCESSIONAIRE to address:

- i. Associated projects that may relate to the Jundiapeba station, notably the tunnel construction project under the Jundiapeba station planned in the TCK 002 VENTURE, as per this EXHIBIT, the responsibility of the CONCESSIONAIRE, which is mandatory for this VENTURE STA 016;
- ii. The location of its implementation should correspond to the same location as the existing station, in a section of tangent tracks between the Suzano and Braz Cubas stations;
- iii. In its BASIC AND EXECUTIVE PROJECTS, the VENTURES in PERMANENT TRACK VPM 018 and in OVERHEAD LINE EQUIPMENT RDS 016 are planned in the station area, as per EXHIBIT II.B, the responsibility of the CONCESSIONAIRE, which should be mandatory for this VENTURE STA 016;
- iv. The existing building that currently houses the station's operational rooms should be preserved and restored; and
- v. Accesses should be provided on both sides of the railway with a crossing in an unpaid area that should also provide access to the station mezzanine for crossing to the paid area. Each access should be accessible and equipped with at least one fixed staircase, two escalators, and an elevator.

1.16 VENTURE STA 017 – REFORM OF BRAZ CUBAS STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. Associated projects that may relate to the Braz Cubas station, the responsibility of the CONCESSIONAIRE;
- ii. Implementation of a mezzanine for station access to accommodate a control line that will allow access to the platforms;
- iii. Accesses should be provided on both sides of the railway with a crossing in an unpaid area that should also provide access to the station mezzanine. Each access should be accessible and equipped with at least one fixed staircase, two escalators, and an elevator;
- iv. The access between the mezzanine and platforms should be equipped with stairs, escalators, and an elevator in quantity and with sufficient dimensions to meet the

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highest projected demand for the station; and

- v. Provision should be made for a bicycle parking area with sufficient dimensions to meet the demand of USERS.

1.17 VENTURE STA 018 – RECONSTRUCTION OF MOGI DAS CRUZES STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. The location of the station's implementation should correspond to the section of tangent tracks between the Braz Cubas and Estudantes stations, with the platform shifted about 100m west from the current position;
- ii. In its BASIC AND EXECUTIVE PROJECTS, the VENTURES in PERMANENT TRACK VPM 019 and in OVERHEAD LINE EQUIPMENT RDS 017 are planned in the station area, as per EXHIBIT II.B, the responsibility of the CONCESSIONAIRE, which are mandatory for this VENTURE STA 018; and
- iii. Accesses should be provided on both sides of the railway with a crossing in an unpaid area that should also provide access to the station mezzanine for entry into the paid area. Each access should be accessible and equipped with at least one fixed staircase, two escalators, and an elevator.

1.18 VENTURE STA 019 – RECONSTRUCTION OF ESTUDANTES STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

- i. The location of its implementation should correspond to the same location as the existing station, in a section of tangent tracks between the Mogi das Cruzes and Cezar de Souza stations;
- ii. In its BASIC AND EXECUTIVE PROJECTS, the VENTURES in PERMANENT TRACK VPM 020 and in OVERHEAD LINE EQUIPMENT RDS 018 are planned in the station area, as per EXHIBIT II.B, the responsibility of the CONCESSIONAIRE, which should be mandatory for this VENTURE STA 019; and
- iii. Provide accessible crossing of the railway tracks in an unpaid area that should also provide access to the station mezzanine; the access facing the Estudantes Bus Terminal should be equipped with a fixed staircase, two escalators, and an elevator.

1.19 VENTURE STA 020 – CONSTRUCTION OF CEZAR DE SOUZA STATION

The following items are considered mandatory for the CONCESSIONAIRE to address:

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- i. That its implementation location corresponds to the location of roads tangent to Ricieri José Marcatto Avenue and the existing building of the Cezar de Souza station, which is deactivated and must be maintained;
- ii. That its BASIC AND EXECUTIVE PROJECTS include the VENTURES in PERMANENT TRACK VPM 008 and in AERIAL NETWORK RDS 006, as per EXHIBIT II.B, the responsibility of the CONCESSIONAIRE, which must be mandatory for this VENTURE STA 020;
- iii. The associated projects that may relate to the Cezar de Souza station, notably the project of parking lanes adjacent to the station, provided for in the VENTURE YRD 010, as per this EXHIBIT, the responsibility of the CONCESSIONAIRE, which is mandatory for this VENTURE STA 020;
- iv. Consider the Cezar de Souza station as the terminal for LINE 11 SERVICES;
- v. That the existing building that housed the old Cezar de Souza station must be maintained and restored;
- vi. That accesses should be provided on both sides of the railway with a non-paid area crossing that should also provide access to the station mezzanine for crossing to the paid area. Each access should be accessible and equipped with at least one fixed staircase, two escalators, and one elevator; and
- vii. Implementation of the station, with reconfiguration of the adjacent road system, including the implementation of boarding and alighting bays for buses within a radius of no more than 200m from the station.

1.20 VENTURE STA 022 – REFORM OF THE COMENDADOR ERMELINO STATION

The following are considered mandatory items for the CONCESSIONAIRE to meet:

- i. The associated projects that may relate to the Comendador Ermelino station, the responsibility of the CONCESSIONAIRE.

1.21 VENTURE STA 023 – REFORM OF THE SÃO MIGUEL PAULISTA STATION

The following are considered mandatory items for the CONCESSIONAIRE to meet:

- i. The associated projects that may relate to the São Miguel Paulista station, notably projects for Line 14 of the rail system; and
- ii. Demolition of the old São Miguel Paulista station.

1.22 VENTURE STA 025 – REFORM OF THE ITAIM PAULISTA STATION

The following are considered mandatory items for the CONCESSIONAIRE to meet:

- i. i. The associated projects that may relate to the Itaim Paulista station, notably the project of parking lanes adjacent to the station, provided for in the VENTURE YRD 012, as per this EXHIBIT, the responsibility of the CONCESSIONAIRE, which is mandatory for this VENTURE STA 025.

1.23 VENTURE STA 027 – RECONSTRUCTION OF THE ITAQUAQUECETUBA STATION

The following are considered mandatory items for the CONCESSIONAIRE to meet:

- i. That its implementation location corresponds to the same location as the existing station, in a section of roads tangent between the Engenheiro Manoel Feio and Aracaré stations;
- ii. That its BASIC AND EXECUTIVE PROJECTS in the station area include VENTURES in PERMANENT TRACK VPM 017 and in AERIAL NETWORK RDS 015, as per EXHIBIT II.B, the responsibility of the CONCESSIONAIRE, which must be mandatory for this VENTURE STA 027;
- iii. Comply with the requirements established in the Commitment Adjustment Term No. 09/99, Exhibit 5, as set forth in EXHIBIT XI, incorporating solutions in the BASIC AND EXECUTIVE PROJECTS and works, ensuring accessibility to the PASSENGERS and USERS of this VENTURE;
- iv. Provide accessible crossing of the railway lines in a non-paid area, which must also ensure access to the new station mezzanine; and
- v. Implement a bicycle parking area with sufficient dimensions to meet the demand of USERS.

1.24 VENTURE STA 028 – CONSTRUCTION OF THE CANGAÍBA STATION

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the location of its implementation corresponds to the location of tangent tracks between the Gabriela Mistral and Engenheiro Goulart stations, adjacent to the west to the underpass of Adelina Linhares street;
- ii. The integration and unification of the SERVICES of LINE 12 and LINE 13, allowing the

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passage of the Airport Express SERVICE and MRS freight trains;

- iii. That the place of its implementation corresponds to the location of tangent tracks between the Gabriela Mistral and Engenheiro Goulart stations, adjacent to the west to the underpass of Adelina Linhares street;
- iv. The underpass of Adelina Linhares street, under Line 12, must be adequate to support accesses, as well as the circulation of USERS, PASSENGERS and vehicles;
- v. That access to the station will be at level through the underpass of Adelina Linhares street;
- vi. Implement a system for quantifying PASSENGERS in transfer between lines at this station;
- vii. That in its BASIC AND EXECUTIVE PROJECTS, in the region of the station, the VENTURES in PERMANENT TRACK VPM 010 and in AERIAL NETWORK RDS 008 are foreseen, according to EXHIBIT II.B, under the responsibility of the CONCESSIONAIRE, which must be mandatory for this VENTURE STA 028; and
- viii. Implementation of the station, with reconfiguration of the adjacent road system, including the implementation of boarding and disembarking bays for buses within a radius of a maximum of 200m from the station.

1.25 STA VENTURE 029 – RENOVATION OF THE ENGENHEIRO GOULART STATION

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. Implement a system for quantifying PASSENGERS in transfer between lines at this station.

1.26 STA 032 VENTURE – CONSTRUCTION OF THE JARDIM DOS EUCALIPTOS STATION

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the location of its implementation corresponds to the location of tangent tracks between the Guarulhos and São João Airport stations, in the Taboão neighborhood in the municipality of Guarulhos;
- ii. That in its BASIC AND EXECUTIVE PROJECTS the VENTURES IN PERMANENT TRACK VPM 014 in AERIAL NETWORK RDS 012 are foreseen, according to EXHIBIT II.B, under the responsibility of the CONCESSIONAIRE, which must be mandatory for this VENTURE STA 032;

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- iii. Implementation of the station, with reconfiguration of the adjacent road system, including the implementation of boarding and disembarking bays for buses within a radius of a maximum of 200m from the station.

1.27 STA 033 – CONSTRUCTION OF SÃO JOÃO STATION

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the location of its implementation corresponds to the location of tangent tracks between the Jardim dos Eucaliptos and Presidente Dutra stations, in the neighborhood of São João in the municipality of Guarulhos;
- ii. That in its BASIC AND EXECUTIVE PROJECTS the VENTURES ON PERMANENT TRACK VPM 014 in AERIAL NETWORK RDS 012 are foreseen, according to EXHIBIT II.B, under the responsibility of the CONCESSIONAIRE, which must be mandatory for this VENTURE STA 033;
- iii. Implementation of the station, with reconfiguration of the adjacent road system, including the implementation of boarding and disembarking bays for buses within a radius of a maximum of 200m from the station.

1.28 STA 034 – CONSTRUCTION OF PRESIDENTE DUTRA STATION

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the location of its implementation corresponds to the location of tangent tracks between the São João and Bonsucesso stations, parallel to the Marginal do Rio Baquirivu Avenue between the neighborhoods of Presidente Dutra and Vila Anita Garibaldi/ Jardim Santa Paula in the municipality of Guarulhos;
- ii. That in its BASIC AND EXECUTIVE PROJECTS the VENTURES ON PERMANENT TRACK VPM 014 in AERIAL NETWORK RDS 012 are foreseen, according to EXHIBIT II.B, under the responsibility of the CONCESSIONAIRE, which must be mandatory for this VENTURE STA 034; and
- iii. Implementation of the station, with reconfiguration of the adjacent road system, including the implementation of boarding and disembarking bays for buses within a radius of a maximum of 200m from the station.

1.29 STA 035 VENTURE – CONSTRUCTION OF BONSUCESSO STATION

The following are considered mandatory items for service by the CONCESSIONAIRE:

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- i. Consider Bonsucesso station as the terminal of LINE 13 SERVICES;
- ii. That the place of its implementation corresponds to the location of tangent tracks after the Presidente Dutra station, parallel to Francisco Xavier Correa Avenue, between Dilermano Reis and Petrônio Portella Nunes streets, in the Bonsucesso neighborhood in the municipality of Guarulhos;
- iii. Associated projects that may be related to Bonsucesso station, especially projects for Line 14;
- iv. That in its BASIC AND EXECUTIVE PROJECTS the VENTURES IN PERMANENT TRACK VPM 014 in AERIAL NETWORK RDS 012 are foreseen, to enable the implementation of the station, according to EXHIBIT II.B, under the responsibility of the CONCESSIONAIRE, which must be mandatory for this VENTURE STA 035; and
- v. Implementation of the station, with reconfiguration of the adjacent road system, including the implementation of boarding and disembarking bays for buses within a radius of a maximum of 200m from the station.

1.30 STA VENTURE 036 – RENOVATION OF ARACARÉ STATION

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. To meet the requirements established in the Term of Commitment for Conduct Adjustment No. 09/99, Appendix 5, contained in EXHIBIT XI, incorporating the solutions in the BASIC AND EXECUTIVE PROJECTS and works, ensuring accessibility to the PASSENGERS and USERS of this VENTURE;
- ii. Implement a mezzanine in the station with its accesses connecting the platforms, accommodate a line of locks that will allow direct access to the platforms;
- iii. Provide accessible transposition of the railroads in an unpaid area that should also guarantee access to the new mezzanine of the station; and
- iv. That a bicycle rack be implemented with sufficient dimensions to meet the demand of USERS.

2 DESCRIPTION OF THE VENTURES OF LINE 11 – YARDS AND ROADS PARKING LOTS, COMPLEXES AND MAINTENANCE BASES, WASHER AND RAIL YARD

The VENTURES listed below discriminate the investments in YARDS AND ROADS, PARKING LOTS, COMPLEXES AND MAINTENANCE BASES, WASHER AND RAIL YARD.

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The CONCESSIONAIRE will have maintenance and support areas and infrastructures that will be built, rebuilt, adequate, renovated and modernized, in order to maintain all the systems involved, with eventual sharing, under the terms of EXHIBIT III.B and EXHIBIT III.C and information registered in the YRD VENTURES.

The infrastructures in the stretch from Palmeiras-Barra Funda to Cezar de Souza are:

Table 3: SUPPORT INFRASTRUCTURES ALONG THE ROADS - BARRA FUNDA – CEZAR DE SOUZA SECTION

SUPPORT INFRASTRUCTURE - PALMEIRAS-BARRA FUNDA – CEZAR DE SOUZA STRETCH - LINE 11 CORAL				
ITEM	DESCRIPTION	DESTINATION	VENTURE	TRAIN PARKING SPACES
1	LUZ MAINTENANCE COMPLEX	OPERATIONAL PARKING AND TRAIN MAINTENANCE	YRD 001	12
2	MAINTENANCE WORKSHOPS	TRAIN MAINTENANCE WORKSHOPS	YRD 002	NOT APPLICABLE
3	MAINTENANCE COMPLEX ENG. SÃO PAULO I and II	OPERATIONAL PARKING LANES AND TRAIN MAINTENANCE	YRD 003	16 (9 ENG SÃO PAULO + 4 BELEM)
4	TEST ROUTE	OPERATIONAL TRACK	YRD 004	NOT APPLICABLE
5	MAINTENANCE BASE FOR BALLAST AND SLEEPERS	MAINTENANCE BASE OF FIXED SYSTEMS AND BALLAST AND SLEEPER STOCK	YRD 005	NOT APPLICABLE
6	GUAIANASES PARKING LANES	OPERATIONAL PARKING LANES	YRD 006	4
7	RAIL WELDING YARD	SHORT BAR RAIL STOCK AND TLS PRODUCTION	YRD 007	NOT APPLICABLE
8	TRAIN WASHER	TRAIN WASHER AND OPERATIONAL PARKING	YRD 008	5
9	SYSTEMS MAINTENANCE BASE	FIXED SYSTEMS MAINTENANCE BASE	YRD 009	NOT APPLICABLE

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SUPPORT INFRASTRUCTURE - PALMEIRAS-BARRA FUNDA – CEZAR DE SOUZA STRETCH - LINE 11 CORAL				
ITEM	DESCRIPTION	DESTINATION	VENTURE	TRAIN PARKING SPACES
10	CEZAR DE SOUZA PARKING LANES	OPERATIONAL PARKING LANES	YRD 010	3

2.1 YRD 001 VENTURE – LUZ MAINTENANCE COMPLEX

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT the necessary renovations to house the maintenance and operation support activities, considering:

- i. Renovate the entire medium and low voltage electrical network, and data, telecommunication, hydraulics and pneumatics and the existing roof (ceiling);
- ii. Renovate 03 maintenance lanes for a minimum extension of 180m with coverage (ceiling) along its entire length and with the installation of trenches and work platforms at height;
- iii. Build a train blowing track with coverage and a minimum length of 180m;
- iv. Renovate the parking yard (Pátio Luz) for at least 12 trains with a minimum length of 180m, installing work platforms between tracks, overhead lighting and a support room for operation, security and cleaning personnel;
- v. Build technical-administrative rooms on the mezzanine with the installation of equipment for the accessibility of people with low mobility;
- vi. Renovate the support rooms (workshops and warehouse) for maintenance.

2.2 YRD 002 VENTURE – MAINTENANCE WORKSHOPS

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT the necessary renovations and modernizations to house the maintenance and operation activities, considering:

- i. Build technical-administrative rooms to meet the scope of maintenance activities of ROLLING STOCK;
- ii. Build accessible changing rooms and bathrooms near the workshops;
- iii. Implement the train's paint booth;
- iv. Build ROLLING STOCK maintenance workshops, including:

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- a. Air Conditioning Systems (40m²): Preventive maintenance of the train air conditioning system;
- b. Pantographs (40m²): Preventive maintenance of pantographs and their components;
- c. Tooling (40m²): Space to store tools for train maintenance activities;
- d. Local Warehouse (40m²): Space for storage of parts and consumables for train maintenance activities;
- e. Painting (40m²): Space for painting small and medium-sized pieces;
- f. Bog Washer (40m²): Equipment for washing bogies;
- g. Bogey Blasting Booth (40m²): Equipment for bogie blasting;
- h. Shipyard (80m²): Storage area for traction motors, wheel sets, bogies and other equipment;
- i. Mechanical (40m²): Preventive maintenance of the train's mechanical system, mechanical parts of the brake system, cleaning of rails, stairs, seat bases, locks, couplings, among others;
- j. Welding and Boilermaking (40m²): Activities with electric/oxyacetylene welding and boilermaking on the metal parts of trains;
- k. Turning (40m²): Manufacturing/recovery activities of mechanical parts of trains;
- l. Compressed Air Systems (40m²): Preventive maintenance of compressors and drying units and stationary compressors;
- m. Pneumatic Systems and Brakes (40m²): Preventive maintenance of the train's brake system, valves, drains, brake cylinders, pipes and horns;
- n. Seats, Interior Coverings, Windows, Windshields and Doors (40m²): Space for preventive maintenance of all parts that make up the interior of the trains;
- o. Electricity (80m²): Preventive maintenance of auxiliary motors and train traction motors;

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- p. Electronics (40m2): Preventive maintenance of the traction control system, inverters, imposed speed (VI), black box, door controllers, brake controllers and other electronic train systems;
- q. General Generators (40m2): Space for the installation of stationary generators that will supply electricity to all maintenance facilities, in an emergency situation;
- r. Stationary Compressors (40m2): Space for the installation of stationary compressors that will supply compressed air to all maintenance facilities;
- s. General Battery Maintenance (40m2): Space for preventive maintenance of train batteries, special vehicles, Signaling Systems, Catenary, Telecommunications and CCO.

2.3 YRD 003 VENTURE – ENGENHEIRO SÃO PAULO MAINTENANCE COMPLEX

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT the necessary renovations to house the maintenance and operation activities, considering:

- i. Renovate the entire medium and low voltage electrical network, and data, telecommunication, hydraulics and pneumatics and the existing roof (ceiling);
- ii. Renovate the parking yard (New Yard) with 04 train spaces with a minimum length of 180 m, installing work platforms between tracks, overhead lighting and a support room for operation, security and cleaning personnel;
- iii. Renovate the support rooms (workshops and warehouse) for maintenance.

2.4 YRD 004 VENTURE – TEST ROUTE

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Build a test track, in a location to be defined by the CONCESSIONAIRE, preferably on LINE 11, close to any maintenance complex, null grid and tangent, electrified and with a minimum length equal to 1,000 meters.

2.5 YRD 005 VENTURE – MAINTENANCE BASE FOR BALLAST AND SLEEPERS

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions

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necessary to complement and implement the following mandatory guidelines:

- i. Build the access roads, support room/shed for storage of equipment used in the handling of materials and adequacy of the areas for storage of ballast and sleepers used in LINES 11, 12 and 13.

For this VENTURE, the CONCESSIONAIRE will define an area, which must be located in the CONCESSION AREA, where the ballast (gravel) and sleepers will be stored, without causing an impact on the circulation of the trains, observing the SEAT OFFER PLAN. The rail detour must be adequate with the implementation of a service lane for parking, loading and unloading. Next to this service road, a platform necessary for the mechanized loading of ballast in the wagons must be built. In addition to the ballast load, the service track must serve the sleeper storage yard considering the loading and unloading of this material in railway vehicles. The project to be prepared by the CONCESSIONAIRE, as well as the road accesses for the delivery of materials by the respective suppliers, must comply with the mandatory item defined for this YRD 005 VENTURE, as well as the guidelines described in this EXHIBIT.

2.6 YRD 006 VENTURE – GUAIANASES PARKING LANES

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Adaptation of the PROJECT in order to meet the purpose of its use for the formation of trains, maneuvers and parking, carrying out the relocation of the SABESP pipeline on site.

2.7 YRD 007 VENTURE – RAIL WELDING YARD

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Build the access roads, the rail bar storage yard, the support/production building (including the welding machine) and workshops, warehouses and facilities for a welded long rail yard.

The VENTURE involves the implementation of the shipyard (open-air metal structure, with hoisting equipment) for handling and depositing rails in bars, whose length will be defined by the CONCESSIONAIRE (stock item) and construction of the building of the welded long rail production line. The chosen length should prioritize the fewest possible welds to avoid greater wear and tear on the rails. The shipyard must be provided with road access, auxiliary railroad, the yard must have the track where the wagon composition (cargo/transport long bars) must remain parked, on the production line.

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The internal layout of the yard must be detailed by the CONCESSIONAIRE, as well as the road access for delivery of the booms by the respective supplier, thus complying, in a dimension consistent with the storage and production of the long welded rails, to the mandatory items defined for this YRD 007 VENTURE.

2.8 YRD 008 VENTURES – TRAIN WASHER

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Construction of parking lanes for 05 trains of 8 cars;
- ii. Construction of a train washer, in a location to be defined by the CONCESSIONAIRE, with capacity to mechanically wash 01 train and manually 02 trains, simultaneously, and park at least 05 trains of 180 m in length;
- iii. Construction of the support building for security personnel and cleaning / storage of cleaning materials used in the washing of trains;
- iv. Construction of road access for delivery/unloading of cleaning materials;
- v. Construction of elevated platforms for washing the roof of trains provided with cable life.

The VENTURE must have work platforms between roads, operational support areas and lighting of the site, meeting the mandatory items defined for this YRD 008 VENTURE, whose layout will be the responsibility of the CONCESSIONAIRE.

2.9 YRD 009 VENTURE – SYSTEMS MAINTENANCE BASE

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Build access roads, workshops, warehouses and facilities for a maintenance base for signaling and telecommunications systems in a location to be defined by the CONCESSIONAIRE;
- ii. Build a signaling and electronics laboratory;
- iii. The CONCESSIONAIRE may adapt the auxiliary track that gives rail access to the maintenance base of these systems, or propose an alternative solution, under the terms of the AGREEMENT.

2.10 YRD 010 VENTURE - CEZAR DE SOUZA PARKING LANES

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Adapt the parking lanes of Cezar de Souza, which should have the capacity to park at least 03 trains of 180 m in length;
- ii. Adapt the parking lanes that will be destined to MRS, according to the technical specifications of the CPTM / MRS AGREEMENT.

For the implementation of the VENTURE, the CONCESSIONAIRE must adapt the tracks and the implementation next to the yard of work platforms between the tracks, contemplating operational support areas, as well as lighting of all tracks, meeting the mandatory items defined for this YRD 010 VENTURE, which is strategic for the SERVICE of LINE 11 and that is used for train formation, maneuvers and parking of operational trains and other related items. Alternative solutions may be proposed in projects, as long as they maintain the continuity of MRS's yard services.

It should be noted that the region adjacent to the parking lot of operational trains of LINE 11 must be provided the parking area for trains, locomotives or auxiliary vehicles and equipment belonging to MRS, whose coexistence must be treated according to the terms of EXHIBIT III.C.

The yard for MRS should be built prior to the construction of the Cezar de Souza station, allowing the maintenance of use by the company, in a place close to the existing site. The construction method should minimize or eliminate the impacts of the construction of the new Cezar de Souza yard on the operation of MRS's cargo service.

3 DESCRIPTION OF THE VENTURES OF LINE 12 – YARDS, ROADS, PARKING LOTS, COMPLEXES AND MAINTENANCE BASES

The project items listed here by the GRANTING AUTHORITY, as VENTURES, have a mandatory character.

The CONCESSIONAIRE will have support areas and infrastructures made available for the construction, reconstruction or adjustments of the MAINTENANCE INFRASTRUCTURE, in order to maintain all the systems involved without the need for infrastructure sharing.

The infrastructures in the stretch from Brás to Suzano are:

Table 4: SUPPORT INFRASTRUCTURES ALONG THE BRÁS – CALMON VIANA STRETCH ROADS

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SUPPORT INFRASTRUCTURE – BRÁS – CALMON VIANA SECTION – LINE 12				
ITEM	DESCRIPTION	DESTINATION	VENTURE	TRAIN PARKING SPACES
1	METALLURGY AND AMVS MAINTENANCE BASE	STOCK OF AMV's AND METALLURGY WORKSHOP FOR PRODUCTION OF BONDED INSULATING GASKET AND AMV RECOVERY	YRD 011	NOT APPLICABLE
2	ITAIM PAULISTA PARKING LANES	OPERATIONAL PARKING LANES	YRD 012	4
3	ENG. MANOEL FEIO PARKING LOT	OPERATIONAL PARKING	YRD 013	9
4	CALMON VIANA MAINTENANCE BASE	SUPPORT BASE FOR VP AND AR MAINTENANCE TEAMS, AND AUXILIARY VEHICLE MAINTENANCE WORKSHOPS (VP AND RA)	YRD 014	NOT APPLICABLE

3.1 YRD 011 VENTURE - METALLURGY AND AMVS MAINTENANCE BASE

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Build access roads, welding metallurgy workshops, turnout deposits, turnout assembly area and facilities for the production of glued insulating joints in an area to be defined by the CONCESSIONAIRE.

The layout of the facilities, storage areas and road accesses must be detailed in the design phase of the CONCESSIONAIRE's responsibility, thus meeting the mandatory items defined for this YRD 011 VENTURE.

3.2 YRD 012 VENTURE - ITAIM PAULISTA PARKING LANES

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Adapt the parking lanes of Itaim Paulista, which should have the capacity to park at least 04 trains of 180 meters in length.

3.3 YRD 013 VENTURE - PATIO PARKING ENG. MANOEL FEIO

The CONCESSIONAIRE shall provide, in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Adapt the Eng. Manoel Feio parking yard, which should have the capacity to park at least 09 trains of 180 meters in length;
- ii. Construction of a building to support the operation/security personnel.

3.4 YRD 014 VENTURE - CALMON VIANA MAINTENANCE BASE

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to implement the mandatory guidelines at the Calmon Viana MAINTENANCE BASE, detailed below, promoting the necessary reforms to house the teams responsible for maintenance activities:

- i. Demolish existing buildings and carry out general cleaning of the area;
- ii. Rebuild the buildings to support the maintenance teams, including all civil parts and building facilities;
- iii. Build roads for the maintenance of auxiliary vehicles with a minimum length of 60m, with coverage (ceiling) along its entire length, with the installation of trenches, support rooms and work platforms at height;
- iv. Build a new local warehouse and its road accesses;
- v. Install overhead lighting throughout the area covered by the Maintenance Base; and
- vi. To make the works and renovations compatible with the VENTURES of energy systems planned for the area, defined in EXHIBIT II.C.

The layout of the facilities of the Calmon Viana MAINTENANCE BASE is the responsibility of the CONCESSIONAIRE.

4 DESCRIPTION OF THE VENTURES OF LINE 13 – PATIOS AND PARKING LANES

The project items listed here by the GRANTING AUTHORITY, as VENTURES, have a mandatory character.

The CONCESSIONAIRE will have support areas and infrastructures made available for the construction, reconstruction or adaptation of maintenance infrastructures, in order to maintain all systems involved

without the need for infrastructure sharing.

The infrastructure on the stretch from Engenheiro Goulart to Bonsucesso is:

Table 5: SUPPORT INFRASTRUCTURE ALONG THE ENGENHEIRO GOULART – BONSUCESSO STRETCH

SUPPORT INFRASTRUCTURE - ENGENHEIRO GOULART - BONSUCESSO - LINE 13 SECTION				
ITEM	DESCRIPTION	DESTINATION	VENTURE	TRAIN PARKING SPACES
1	BONSUCESSO PARKING YARD	OPERATIONAL PARKING	YRD 015	2

4.1 YRD 015 VENTURE - BONSUCESSO PARKING YARD

The CONCESSIONAIRE shall provide in its BASIC PROJECT and EXECUTIVE PROJECT, all the actions necessary to complement and implement the following mandatory guidelines:

- i. Build the Bonsucesso parking yard, which should have the capacity to park at least 2 trains of 180 meters in length;

The yard should provide four-meter work platforms between tracks, an operational support area and lighting of all tracks, allowing it to be used for train formation, maneuvers and parking of operational trains and other related items.

5 DESCRIPTION OF CURRENT WORKS OF WORKS OF CURRENT ART

The mandatory VENTURE of Current Works of Art is described below:

5.1 OAC 001 VENTURE - EXPANSION OF THE TROUGH/SECTION OF THE CROSSING OF THE TRÊS PONTES STREAM - KM 31+850, LINE 12

Existing Current Works of LINE 12: Includes the channeling of the stream (Três Pontes Stream) and Execution of Crossing by the Non-Destructive Method (Linear Tunnel) at Km 31+850.

In this VENTURE, the CONCESSIONAIRE is obliged to prepare the hydrological studies, the development of the BASIC AND EXECUTIVE PROJECTS, and the execution of the works (tunnels, downstream and upstream wings, and relocation of the road) aiming at the expansion of the flow section of the stream located at km 31+850 of Line 12, border between the Municipalities of São Paulo and Itaquaquecetuba.

It should be noted that three lanes pass through the site, two of which are LINE 12 (V1 and V2) and an

exclusive lane that gives access to the MRS cargo terminal (total of 3 lanes). The engineering project must consider the solution (expansion of the flow section) by the Non-Destructive Method – MND, in a "linear" tunnel. In the design phase, the CONCESSIONAIRE must evaluate the impacts of the expansion of the section with regard to the patrimonial issue and, if necessary, must indicate the areas of expropriation and eventual relocation of the road located downstream of the crossing. To enable the implementation of the works without interruption of traffic, it is recommended the implementation of a temporary road, resulting in a deck for accommodation of 3 (three) lanes.

6 DESCRIPTION OF THE VENTURES OF SPECIAL WORKS OF ART

There are three mandatory VENTURES of Special Works of Art, whose construction methods are detailed below:

6.1 VENTURES OAE 001 - RAILWAY BRIDGE AT KM 32+240, LINE 11

In this project, the CONCESSIONAIRE is obliged to prepare the hydrological studies, develop the BASIC AND EXECUTIVE PROJECTS, and implement the railway bridge at km 32+240, including the interventions in the PERMANENT TRACK and AERIAL TRACTION NETWORK.

It should be noted that two lanes of LINE 11 (V1 and V2) pass through the site and to enable the implementation of the works without interruption of traffic, the project must consider the implementation of a temporary lane, resulting in a deck for accommodation of 3 (three) lanes. In the detailing of the projects, the work of art itself and the PERMANENT TRACK and AERIAL TRACTION NETWORK projects of the temporary diversion must be considered.

6.2 VENTURES OAE 002 – RAILWAY BRIDGE AT KM 34+540, LINE 11

LINE 11: Includes the Railway Bridge - OAE 002 located at Km 34+540.

In this project, the CONCESSIONAIRE has the obligation to prepare the hydrological studies, development of the BASIC AND EXECUTIVE PROJECTS, and implementation of the railway bridge, including the interventions in the PERMANENT TRACK and in the AERIAL TRACTION NETWORK.

It is the stream that crosses the railway strip at the eastern "headwater" of the platforms of the Calmon Viana station and the transposition of the tracks (V1 and V2) of LINE 11 is carried out through metal stringers (railings of the tracks fixed on the metal profiles) implemented by the former Central do Brasil. Currently, only two lanes of LINE 11 pass through the site and to enable the extension works of LINE 12 to Suzano, the existing "bridges" must be removed and a new work of art implanted on the site, with a deck suitable to accommodate 4 (four) lanes, two for LINE 11 and two for LINE 12. In addition to the new bridges, the works should include the expansion of the flow section of this stream.

6.3 VENTURES OAE 003 – RAILWAY BRIDGE AT KM 37+414, LINE 11

In this project, the CONCESSIONAIRE is obliged to prepare the hydrological studies, develop the BASIC

AND EXECUTIVE PROJECTS and implement the railway bridge at km 37+530, including the interventions in the PERMANENT TRACK and in the AERIAL TRACTION NETWORK.

It is the stream that crosses the railway track 300 m from Suzano station (Jundiapéba side) and the transposition of the tracks (V1, V2 and Auxiliary Way) of LINE 11 is carried out through metal stringers (railings of the tracks fixed on the metal profiles) implemented by the former Central do Brasil. Currently, three tracks of LINE 11 pass through the site and to enable the reversal of the trains of LINE 12, the existing "bridges" must be removed and a new work of art implanted on the site, with a deck suitable to accommodate 4 (four) tracks, two for LINE 11 and two for LINE 12. In addition to the new bridges, the works should include the expansion of the flow section of this stream.

6.4 VENTURES OAE 004 – RAILWAY BRIDGE AT KM 52+400, LINE 11 EXTENSION

In this project, the CONCESSIONAIRE has the obligation to prepare the hydrological studies, develop the BASIC AND EXECUTIVE PROJECTS, and implement the railway bridge at km 52+400, including the interventions in the PERMANENT TRACK and in the AERIAL TRACTION NETWORK.

It is the transposition of the Tietê River, which crosses the railway strip, with a length of about 75 meters. The CONCESSIONAIRE shall assess the need to replace the current freight bridges due to its geometric design for the implementation of the passenger lanes.

NOTE: During the construction of this VENTURE, the operation of MRS's cargo transportation service cannot be interrupted. The tracks of LINE 11 must have a self-compensated aerial network.

6.5 OAE 005 VENTURES – VIADUCT OF THE LINE 13 EXTENSION TO BONSUCESSO

In this project, the CONCESSIONAIRE has the obligation to prepare the hydrological studies, develop the BASIC AND EXECUTIVE PROJECTS, and implement the viaduct that enables the construction of the extension of LINE 13 to Bonsucesso, including the works on the PERMANENT TRACK and the AERIAL TRACTION NETWORK.

6.6 VENTURES OAE 006 – TUNNEL IN NATM FROM THE EXTENSION LINE 13 TO BONSUCESSO

In this project, the CONCESSIONAIRE has the obligation to prepare the hydrological studies, develop the BASIC AND EXECUTIVE PROJECTS, and implement the tunnel in NATM located in the region in the São João neighborhood.

6.7 OAE 007 VENTURES – RAILWAY VIADUCT AT KM 14+042, LINE 13 EXTENSION TO GABRIELA MISTRAL

In this project, the CONCESSIONAIRE has the obligation to prepare the hydrological studies, develop the BASIC AND EXECUTIVE PROJECTS, and implement the railway viaduct at km 14+042, including the works on the PERMANENT TRACK and the AERIAL TRACTION NETWORK.

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It is a viaduct that crosses over Souza Melo Street. Currently, two lanes of circulation of LINE 12 pass through the site. A new work of art should be implemented at the site to accommodate 2 (two) more lanes, resulting in two for LINE 12 and two for LINE 13.

NOTE: During the construction of the new structure, the operation of LINE 12 cannot be interrupted.

7 WALKWAYS VENTURES

The project items listed here by the GRANTING AUTHORITY, as VENTURES, have a mandatory character.

7.1 WLW 001 VENTURE

VENTURES of footbridges that cross the railway between the Palmeiras-Barra Funda and Guaianases stations:

WALKWAY CAPISTRANO DE ABREU AND LUIGI GRECO STREETS			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 152	PA-07-0203A	-23.527959°, - 46.653084°	Luigi Greco Street / Capistrano de Abreu Street
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation	

WALKWAY PARI			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 76	PA-11-0105A	-23.538161°, - 46.623982°	Feirinha da Madrugada/Pari Municipal Market
PLANNED IMPROVEMENTS:		Reconstruction of ramps and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation	

BUCOLISMO STREET WALKWAY (LISTED)			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 75	PA-11-0117A	-23.540093°, - 46.620674°	Bucolismo Street / Rodrigues dos Santos Street
PLANNED IMPROVEMENTS:		Restore	

NOVA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA-11-1520A		-23.539083°, - 46.622124°	Monsenhor Andrade Street / Prof. Eurípedes Simões de Paula Street
PLANNED WORK:		Construction of a new walkway	

WALKWAY VILA SANTA TEREZA			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 57	PA-11-1520A	-23.535671°, - 46.490807°	Dr. Luís Aires Street / Independência Square

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PLANNED WORK:	Reconstruction of footbridge
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CORINTHIANS-ITAQUERA ROAD COMPLEX FOOTBRIDGE			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 55	PA-11-1710A	-23.542434°, - 46.479168°	Boipeva Street / Anchieta Set (COHAB)
PLANNED IMPROVEMENTS:		Reconstruction of ramps and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

DAMIÃO GARCIA WALKWAY (FORMER VILA CAMPANELA)			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 52	PA-11-1818A	-23.540911°, - 46.464860°	Guariba and Joapitanga Street / Salim George Id Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

EXTERNAL WALKWAY OF THE GUAIANASES STATION			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 50	PA-11-2348A	-23.542242°, - 46.416557°	Salvador Gianetti Street / Copenhagen Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. Consult and meet the premises of the historical heritage preservation agencies (Condephaat, Iphan and others) for improvements to be carried out on a listed walkway;
- ii. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 11, LINE 12, AIRPORT EXPRESS SERVICE and MRS freight trains during the works; and
- iii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures;
 - c. Implementation of a camera monitoring system on the walkways; and
 - d. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in

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accordance with NBR 5422.

7.2 WLW 002 VENTURE

VENTURES of footbridges that cross the railway between Guaianases and Antônio Gianetti Neto stations:

WALKWAY FORMER GUAIANASES STATION			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 49	PA-11-2435A	-23.543440°, - 46.410948°	Capitão Pucci Street / Salvador Gianetti Street
PLANNED IMPROVEMENTS:		Reconstruction of ramps and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

VILA GERTRUDES WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 47	PA-11-2451A	-23.544146°, - 46.408827°	Poá Road (Clarínia Street) / Professor Cosme Deodato Tadeu Street
PLANNED WORK:		Reconstruction of footbridge	

JARDIM SOARES WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 46	PA-11-2514A	-23.546832°, - 46.400333°	Poá Road (Peçanha Falcão Street) / Prof. Cosme Deodato Tadeu Street
PLANNED WORK:		Demolition of a walkway. Crossing will be made possible by the new access walkway to Lajeado station	

VILA ABC WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 45	PA-11-2607A	-23.551025°, - 46.395733°	End of the Poá Road (Progresso Street) / Ligima Street
PLANNED WORK:		Reconstruction of footbridge	

ETEC WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 44	PA-11-2625A	-23.554814°, - 46.391295°	Av. José do Patrocínio / Av. Governador Jânio Quadros
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the LINE 11 SERVICE during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:

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- a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
- b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures;
- c. Implementation of a camera monitoring system on the walkways; and
- d. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

7.3 WLW 003 VENTURE

VENTURES of footbridges that cross the railway between the Antônio Gianetti Neto and Calmon Viana stations:

WALKWAY PATO DONALD			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 42	PA-11-2813A	-23.549980°, - 46.379997°	Pato Donald Street / Pascoal Lobosco Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

WALKWAY IN BAIRRO DO TANQUINHO			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 39	PA-11-2909A	-23.544208°, - 46.374006°	Av. Brazil / Godofredo Osório Novaes Street
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

VILA DA CORRÊA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 36	PA-11-3019A	-23.535507°, - 46.361097°	Lourenço Paganucci Street/ Av. Marginal Zilda Arns
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

VILA SOPRETER (ALSO KNOWN AS VILA PERRACINI)			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 35	PA-11-3207A	-23.528905°, - 46.349746°	Av. Vicente Leporace / Av. Padre Anchieta
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

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TRIANGLE WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 31	PA-11-3317A	-23.523765°, - 46.337677°	Av. Brazil / Herculano Duarte Ribas Street
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the LINE 11 SERVICE during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS and in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures;
 - c. Implementation of a camera monitoring system on the walkways; and
 - d. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

7.4 WLW 004 VENTURE

VENTURES of footbridges that cross the railway between the Calmon Viana and Estudantes stations:

VILA LÚCIA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 26	PA-11-3505A	-23.528674°, - 46.323632°	Av. Brasil / Av. Paul Percy Harris
PLANNED WORK:		Reconstruction of footbridge	

NEW WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA_C_L11_06	-	-23.533192°, - 46.310714°	Major Pinheiro Fróes Street / Hwy. João Afonso de Souza Castellano
PLANNED WORK:		Construction of a new walkway	

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HOECHST WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 22	PA-11-3905A	-23.534621°, - 46.285671°	José Pereira Street / Av. Jorge Bei Maluf
PLANNED WORK:		Reconstruction of footbridge	

NEW WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA_C_L11_02	-	-23.537391°, - 46.228886°	Av. Almerinda Villela Ferreira / Av. Anchieta
PLANNED WORK:		Construction of a new walkway	

NEW WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA_C_L11_03	-	-23.534149°, - 46.218495°	Av. Valentina Mello Freire Borenstein / Av. Gov. Adhemar de Barros
PLANNED WORK:		Construction of a new walkway	

NEW WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA_C_L11_04	-	-23.523048°, - 46.201141°	Presidente Campos Salles Street/ Av. Gov. Adhemar de Barros
PLANNED WORK:		Construction of a new walkway	

NEW WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA_C_L11_05	-	-23.520398°, - 46.195305°	Street Américo Rodrigues / Dr. Deodato Wertheimer Street
PLANNED WORK:		Construction of a new walkway	

VEREADOR BENTO ANTÔNIO DE OLIVEIRA WALKWAY (FORMER MAKTUB SUPERMARKET)			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 06	PA-11-4925A	-23.519016°, - 46.192307°	Tenente Alcides Machado Street / Padre João Street
PLANNED WORK:		Reconstruction of a new walkway	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICE of LINE 11 and MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules

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and legislation regarding guardrails, public lighting, drainage and structures;

- c. Implementation of a camera monitoring system on the walkways; and
- d. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

7.5 WLW 005 VENTURE

VENTURES of footbridges that cross the railroad between the Tatuapé and USP Leste stations:

SINGAPORE CATWALK			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 141	PA-12-1022A	-23.519854°, - 46.550796°	Henrique Souza Queirós Street / Natal Basile Street
PLANNED IMPROVEMENTS:		Reconstruction of ramps and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

SKY TIQUATIRA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 140	PA-12-1101A	-23.516512°, - 46.550756°	Rinópolis Street / Kampala Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

VILA SANTO HENRIQUE WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 135	PA-12-1207A	-23.509089°, - 46.547566°	Av. Dr. Assis Ribeiro 382 / Porto Artaza Street
PLANNED IMPROVEMENTS:		Reconstruction of a new walkway.	

JARDIM OTÍLIA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 134	PA-12-1225A	-23.508641°, - 46.543742°	Av. Dr. Assis Ribeiro 800 / Atleta Alley
PLANNED IMPROVEMENTS:		Reconstruction of ramps and stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

VILA HILDA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 132	PA-12-1413A	-23.499621°, - 46.529361°	Av. Dr. Assis Ribeiro 2700 / Olga Artacho Street
PLANNED IMPROVEMENTS:		Reconstruction of ramps and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

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- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 12, LINE 13, AIRPORT EXPRESS SERVICE and MRS freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures;
 - c. Implementation of a camera monitoring system on the walkways; and
 - d. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

7.6 WLW 006 VENTURE

VENTURES of footbridges that cross the railroad between USP Leste and Itaim Paulista stations:

OWENS ILLINOIS WALKWAY (FORMERLY CISPER)			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 127	PA-12-1815A	-23.483988°, - 46.495848°	Av. Dr. Assis Ribeiro 2700 / Olga Artacho Street
PLANNED IMPROVEMENTS:		Reconstruction of ramps and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

BANN QUÍMICA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 126	PA-12-1917A	-23.484925°, - 46.487553°	Of. Dr. Assis Ribeiro, 7984 / R. Arlindo Bétio
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

SÃO MIGUEL PAULISTA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 116	PA-12-2404A	-23.490649°, - 46.447953°	R. Angelina Lapena Parente / R. Rafael Zimbardi
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

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FOOTBRIDGE JARDIM HELENA - RUA IMERI			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 113	PA-12-2521A	-23.491644°, - 46.432067°	Imeri Street / Pedroso da Silva Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

CATWALK PAULISTANO SQ. - SANTA ROSA DE LIMA STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 112	PA-12-2603A	-23.491923°, - 46.429107°	Dario F. Martins Street / Santa Davina Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

JARDIM FLUMINENSE WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 109	PA-12-2720A	-23.493591°, - 46.412377°	Dr. Gil Martins / Av. Estrela da Noite
PLANNED WORK:		Reconstruction of footbridge	

JARDIM HELENA WALKWAY - PEDRO DE ROSA ABREU STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 108	PA-12-2813A	-23.494140°, - 46.406772°	Pedro R.de Abreu Street / Cordão de São Francisco Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICE of LINE 12 and LINE 13 and of MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures;
 - c. Implementation of a camera monitoring system on the walkways; and
 - d. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

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7.7 WLW 007 VENTURE

VENTURES of footbridges that cross the railroad between Itaim Paulista and Engenheiro Manoel Feio stations:

JARDIM AIMORÉ WALKWAY (MAUÉ MIRIM SQUARE)			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 105	PA-12-2913A	-23.493436°, - 46.396395°	Raimundo M. Figueiredo Street / Maué-Mirim Sq.
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

CATWALK JARDIM SÃO LUÍS			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 104	PA-12-2921A	-23.491189°, - 46.393825°	Manoel Martins de Melo Street
PLANNED WORK:		Reconstruction of footbridge	

GARDEN WALKWAY MARGARIDA			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 102	PA-12-3009A	-23.487441°, - 46.390180°	Manoel Duarte Ferro Street
PLANNED IMPROVEMENTS:		Reconstruction of ramps and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

JARDIM ROMANO I WALKWAY - JOÃO CARLOS AMAT STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 101	PA-12-3015A	-23.485972°, - 46.387621°	João Carlos Amat Street/ Av. Diogo da Costa Tavares
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

JARDIM ROMANO II WALKWAY - GUAJIRU STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 99	PA-12-3112A	-23.482203°, - 46.380121°	Guajiru Street/ Av. Diogo da Costa Tavares
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

JARDIM DA ESTAÇÃO WALKWAY (EXTERNAL WALKWAY OF ENG. MANOEL FEIO STATION)			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 98	PA-12-3112A	-23.479194°, - 46.368216°	Araçatuba Street / Walter da Silva Costa Road
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the

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SERVICE of LINE 12 and MRS's freight trains during the works; and

- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
- a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures;
 - c. Implementation of a camera monitoring system on the walkways; and
 - d. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

7.8 WLW 008 VENTURE

VENTURES of footbridges that cross the railway between the Engenheiro Manoel Feio and Calmon Viana stations:

VILA ESPERANÇA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 94	PA-12-3316A	-23.478729°, - 46.360979°	Ver. Benedito M. Ribeiro Street / Joaquim M. Diogo Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

AVENIDA BRASIL WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 89	PA-12-3521A	-23.488324°, - 46.344024°	Av. Brasil / Quinze de Novembro Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

DOWNTOWN WALKWAY - NAZARÉ PAULISTA STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 87	PA-12-3624A	-23.489751°, - 46.336026°	Vinte e Nove de Junho Street / Nazaré Pta.Street
PLANNED IMPROVEMENTS:		Reconstruction of the ramp, construction of stairs and improvements in the deck to ensure accessibility, safety, maintenance and civil conservation.	

VILA MIRANDA WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PA 85	PA-12-3816A	-23.507667°, - 46.337728°	Av. Marginal Variante / Calil Haddad Street

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PLANNED IMPROVEMENTS:	Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.
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VILA JAÚ WALKWAY			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 83	PA-12-3908A	-23.512492°, - 46.338189°	Av. Marginal Variante
PLANNED IMPROVEMENTS:		Reconstruction of ramps, construction of stairs and improvements to the deck to ensure accessibility, safety, maintenance and civil conservation.	

ALVORADA RESIDENTIAL WALKWAY - PERUÍBE STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 82	PA-12-3919A	-23.516775°, - 46.338554°	Joyer de Godoi Street/ Peruibe Street
PLANNED IMPROVEMENTS:		Reconstruction of one of the ramps and improvements to the deck to ensure accessibility, safety and maintenance, civil conservation.	

ALVORADA RESIDENTIAL WALKWAY - IBAR STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
Phantom Assassin 32	PA-12-4016A	-23.523229°, - 46.335466°	Herculano Duarte Ribus Street/ Eber Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICE of LINE 12 and MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures;
 - c. Implementation of a camera monitoring system on the walkways; and
 - d. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

8 UNDERPASS AND OVERPASS VENTURES

The project items listed here by the GRANTING AUTHORITY, as VENTURES, have a mandatory

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8.1 TCK 001 VENTURES – CÉU JAMBEIRO UNDERPASS

UNDERPASS CÉU JAMBEIRO			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
P1 155	PI-11-2310A	-23.540365°, - 46.421693°	Av. José Pinheiro Borges / Salvador Gianetti Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 11, during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures; and
 - c. Implementation of a camera monitoring system in the underpass.

8.2 TCK 002 VENTURES – UNDERPASS CAETANO RÚBIO STREET

UNDERPASS: CAETANO RÚBIO STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
P1 40	PI-11-2827A	-23.546998°, - 46.377594°	Av. Gov. Jânio Quadros x Godofredo O. Neves Street
PLANNED IMPROVEMENTS:		Punctual improvements to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 11, during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:

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- a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
- b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures; and
- c. Implementation of a camera monitoring system in the underpass.

8.3 TCK 003 VENTURES – ANTÔNIO MANTARANO UNDERPASS

ANTÔNIO MANTARANO UNDERPASS			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
P1 156	PI-11-3217A	-23.525799°, - 46.344319°	Jorge Francisco Corrêa Allen Street / Av. Padre Anchieta
PLANNED IMPROVEMENTS:		Reconstruction of ramps and improvements in the stairs and underpass to ensure accessibility, safety, maintenance and civil conservation.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 11, during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Safety for USERS contemplating compliance with the premises of the rules and legislation regarding guardrails, public lighting, drainage and structures; and
 - c. Implementation of a camera monitoring system in the underpass.

8.4 TCK 004 VENTURES – TUNNEL UNDER JUNDIAPEBA STATION

TUNNEL UNDER JUNDIAPEBA STATION			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PI_C_L11_01	-	-23.542602°, - 46.258350°	Av. Joaquim Pereira de Carvalho / Av. Pres. Altino Arantes
PLANNED WORK:		Construction of a tunnel under the station for vehicles and pedestrians	

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The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 11 and MRS freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting, drainage, ventilation;
 - b. Compliance with the premises of width and height templates of the DNIT or regulatory body;
 - c. Compliance with CBPMESP premises for fire protection in road tunnels.

8.5 TCK 005 VENTURES – ACCESS LOOP OF THE ARGEU BATALHA VIADUCT

ACCESS LOOP VIADUCT ARGEU BATALHA			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PS_C_L11_01	-	-23.535282°, - 46.220886°	Av. Anchieta
PLANNED WORK:		Construction of access loop on the Argeu Batalha viaduct for vehicles	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 11 and MRS freight trains during the works;
- ii. Compliance with the premises of width and height templates of the DNIT or regulatory body; and
- iii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE must ensure compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage.

8.6 TCK 006 VENTURES – VIADUCT BETWEEN BRAZ CUBAS AND MOGI DAS CRUZES STATIONS

VIADUCT BETWEEN BRAZ CUBAS AND MOGI DAS CRUZES STATIONS 1			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PS_C_L11_02	-	-23.525023°, - 46.204857°	Av. Gentleman Nami Jafet / R. Prof. Flaviano de Melo
PLANNED WORK:		Construction of viaduct for vehicles and pedestrians	

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The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICE of LINE 11 and MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage;
 - b. Compliance with the premises of width and height templates of the DNIT or regulatory body; and
 - c. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

8.7 TCK 007 VENTURES – VIADUCT IN THE EXTENSION OF LINE 11 TO CEZAR DE SOUZA

VIADUCT VENTURES in the extension of LINE 11 to Cezar de Souza:

VIADUCT ADJACENT TO ESTUDANTES STATION			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PS_C_L11_03	-	-23.514787°, - 46.182137°	Av. Yoshiteru Onishi / Av. Manoel Bezerra Lima Filho
PLANNED WORK:		Construction of viaduct for vehicles and pedestrians	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the circulation of MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage;
 - b. Compliance with the premises of width and height templates of the DNIT or regulatory body; and
 - c. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in

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accordance with NBR 5422.

8.8 TCK 008 VENTURES – ENGENHEIRO TRINDADE UNDERPASS

ENGENHEIRO TRINDADE UNDERPASS			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PI 137	PI-12-1112A	-23.513759°, - 46.552066°	Vasuka Street / Tunnel Street
PLANNED IMPROVEMENTS:		Widening and raising of underpasses for pedestrians and vehicles	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 12, AIRPORT EXPRESS SERVICE and MRS freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Compliance with the premises of width and height templates of the DNIT or regulatory body; and
 - c. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage.

8.9 TCK 009 VENTURES – VILA NOVA UNIÃO UNDERPASS – PANTANAL FAVELA

VILA NOVA UNIÃO UNDERPASS – PANTANAL FAVELA			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PI 154	PI-12-2208A	-23.487479°, - 46.463858°	Ventura Branco Street /Papiro do Egito Street
PLANNED IMPROVEMENTS:		Widening and raising of pedestrian underpass	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 12 and MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by

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accessibility legislation, especially NBR 9050; and

- b. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage; and
- c. Implementation of a camera monitoring system in the underpass.

8.10 TCK 010 VENTURES – UNDERPASS PAPIRO DO EGITO STREET

UNDERPASS ON PAPIRO DO EGITO STREET			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PI 119	VF-12-2317A	-23.491854°, - 46.453311°	Papiro do Egito Street - Eng. José Cruz de Oliveira Street
PLANNED IMPROVEMENTS:		One-off pedestrian underpass improvements	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 12 and MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050; and
 - b. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage; and
 - c. Implementation of a camera monitoring system in the underpass.

8.11 TCK 011 VENTURES – UNDERPASS SANTA MAURA STREET

UNDERPASS ON R. SANTA MAURA			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PI 118	VF-12-2317B	-23.491907°, - 46.453320°	Asdrúbal Street / José Leal Fontoura Street
PLANNED IMPROVEMENTS:		Widening and raising of underpasses for pedestrians and vehicles	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 12 and MRS's freight trains during the works; and

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- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Compliance with the premises of width and height templates of the DNIT or regulatory body; and
 - c. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage.

8.12 TCK 012 VENTURE – UNDERPASS AV. FERNANDO VASCONCELOS ROSSI

UNDERPASS AV. FERNANDO VASCONCELOS ROSSI			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PI 88	VF-12-3602A	-23.487814°, - 46.341464°	Av. Fernando Vasconcelos Rossi (Av. IV Centenary)
PLANNED IMPROVEMENTS:		Widening and raising of underpass for pedestrians and vehicles.	

The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICES of LINE 12 and MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Accessibility to USERS in compliance with the premises established by accessibility legislation, especially NBR 9050;
 - b. Compliance with the premises of width and height templates of the DNIT or regulatory body; and
 - c. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage.

8.13 TCK 013 VENTURES – VIADUCT BETWEEN BRAZ CUBAS AND MOGI DAS CRUZES 2 STATIONS

VIADUCT BETWEEN BRAZ CUBAS AND MOGI DAS CRUZES STATIONS 2			
ID	ID CPTM	COORDINATES	PUBLIC PLACES
PS_C_L11_05	-	-23.523031°, - 46.201149°	Presidente Campos Salles Street

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PLANNED WORK:	Construction of a viaduct for light vehicles
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The following are considered mandatory items for service by the CONCESSIONAIRE:

- i. That the CONCESSIONAIRE's execution methodology will consider the continuity of the SERVICE of LINE 11 and MRS's freight trains during the works; and
- ii. The preparation of the BASIC PROJECT and the EXECUTIVE PROJECT by the CONCESSIONAIRE shall ensure:
 - a. Compliance with the premises of the standards and legislation regarding excavation, shoring, structures, public lighting and drainage;
 - b. Compliance with the premises of width and height templates of the DNIT or regulatory body; and
 - c. Prevent USERS from accessing the overhead network of the railway and ensure adequate distance between USERS and the overhead network in accordance with NBR 5422.

9 STRIP SEALING WORKS VENTURES

There are two mandatory VENTURES for strip sealing works whose details are described in this EXHIBIT. The CONCESSIONAIRE must define the places where the fence will be carried out with a concrete wall or PMSP metal grating due to the risk that the place may present, in terms of safety, in the creation of low visibility points (e.g., near pedestrian intersections).

These VENTURES must include the entire CONCESSION AREA, namely:

9.1 VFX 001 - ENGENHEIRO GUALBERTO STRETCH - KM 8+500 / CORINTHIANS ITAQUERA - KM 19+450

Demolition and Reconstruction of the Strip Fence wall on LINE 11. In this VENTURE, the CONCESSIONAIRE has the obligation to prepare the BASIC AND EXECUTIVE PROJECTS, including the rental plan, and implementation of the lane sealing works at the indicated points.

Side via 2

- i. Km 11,650 to 11,890: Demolition of the closure of the old Vila Matilde Station and reconstruction of the retaining wall and sealing of the lane;
- ii. Km 13,440 to km 13,458: closure of the lane with spiked rail. Demolition and reconstruction; and

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- iii. Km 15,615 to km 15,640: Reconstruction of the sealing wall on the crest of the slope - Carlos Maria Steimberg Street.

9.2 VENTURE VFX 002 - GUAIANAZES KM 24+800 / SUZANO KM 36+940

Demolition and Reconstruction of Strip Fence Wall LINE 11. In this VENTURE, the CONCESSIONAIRE has the obligation to prepare the BASIC AND EXECUTIVE PROJECTS, including the rental plan, and implementation of the lane sealing works at the indicated points.

Side via 1

Between Guaianases and Antônio Gianetti Netto:

- i. Km 25,850 to km 25,920: Wall supported with rail stakes. Demolition and reconstruction;
- ii. Km 26,000 to km 26,020: Wall in the process of being listed. Demolition and Reconstruction;
- iii. Km 26,020 to km 26,070: Wall supported with rail stakes. Demolition and reconstruction;
- iv. Km 26,412 to km 26,432: Wall in the process of being listed. Demolition and reconstruction;
- v. Km 26,740 to km 26,755: Lane closure with spiked rail. Demolition and reconstruction;
- vi. Km 27,130 to km 27,220: Wall in the process of being listed. Demolition and reconstruction; and
- vii. Km 27,470 to km 27,520: Wall with beginning of tipping. Demolition and reconstruction.

Between Antônio Gianetti Neto and Ferraz de Vasconcelos:

- i. Km 27,990 to km 28,050: Wall in the process of being listed. Demolition and reconstruction; and
- ii. Km 29,650 to km 29,750: Elevation of masonry over the wall, with 30m of wall already listed. Reconstruction of the wall.

Between Ferraz de Vasconcelos and Poá:

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- i. Km 30,220 to 30,700: Demolition of the base and reconstruction of the fence wall.

Entre Calmon Viana and Suzano:

- i. Km 36,360 to km 36,380: Wall with beginning of tipping. Demolition and reconstruction.

9.3 VFX 003 VENTURE - SUZANO KM 36+940 / STUDENTS KM 50+770

Demolition and Reconstruction of Strip Fence Wall LINE 11. In this VENTURE, the CONCESSIONAIRE has the obligation to prepare the BASIC AND EXECUTIVE PROJECTS, including the rental plan, and implementation of the lane sealing works at the indicated points.

Side via 1

Between Mogi das Cruzes and Students:

- i. Km 49,980 to km 50,295: Masonry wall supported with rail stakes. Demolition and reconstruction.

9.4 VFX 004 - STRETCH STUDENTS KM 50+770 / CEZAR DE SOUZA KM 55+115

Construction of the Strip Fence wall of the LINE 11 Extension includes the Cezar de Souza yard and wall that includes the MRS freight lanes and the lanes intended for the PASSENGER transport service. In this VENTURE, the CONCESSIONAIRE has the obligation to prepare the BASIC AND EXECUTIVE PROJECTS, including the rental plan, and implementation of the lane sealing works at the indicated points.

Side via 1 and via 2

Between Students and Cezar de Souza:

- i. Km 50,770 to km 55,115: Masonry wall supported with rail stakes.

9.5 VFX 005 VENTURE - ENGENHEIRO GUALBERTO KM 8+500 / USP LESTE KM 17+200

Demolition and reconstruction of the Strip Fence wall on LINE 12. In this project, the CONCESSIONAIRE has the obligation to prepare the BASIC AND EXECUTIVE PROJECTS, including the lease plan, and implementation of the lane sealing works at the indicated points.

Side via 1

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- i. Km 11,900 to 11,930: stretch between SE Engenheiro Gualberto and Engenheiro Goulart: wall supported with rail stakes. Demolition and reconstruction;
- ii. Km 17,575 to 17,630: stretch between Engenheiro Goulart and USP Leste: wall with beginning of tipping, due to neighboring building. Demolition and reconstruction.

9.6 VFX 006 - USP EAST KM 17+200 / ENGENHEIRO MANOEL FEIO KM 33+150

Demolition and reconstruction of the Strip Fence wall on LINE 12. In this project, the CONCESSIONAIRE has the obligation to prepare the basic and executive projects, including the lease plan, and implement the lane sealing works at the indicated points.

Side via 1

- i. Km 19.620 to 19.650: stretch between USP Leste and Comendador Ermelino: retaining wall/strip fence supported with rail stake. Demolition and reconstruction;
- ii. Km 21,540 to km 21,580: stretch between Comendador Ermelino and São Miguel Paulista: Fence wall on the crest of the already listed slope. Debris Removal and Reconstruction;
- iii. Km 22,595 to 22,615: stretch between Comendador Ermelino and São Miguel Paulista: erosion at the base of the wall, allowing water to enter the strip. Demolition and reconstruction; and
- iv. Km 25,290 to 25,360: stretch between São Miguel Paulista and Jardim Helena-Vila Mara: overturned fence wall. Demolition and reconstruction.

9.7 VENTURE VFX 007 - STRETCH CALMON VIANA KM 40+800 / SUZANO KM 43+800

Adequacy of the Strip Fence wall of the LINE 12 Extension. In this VENTURE, the CONCESSIONAIRE has the obligation to prepare the BASIC AND EXECUTIVE PROJECTS, including the rental plan, and implementation of the lane sealing works at the indicated points.

Side via 1 and via 2

Between Calmon Viana and Suzano:

- i. Km 40,800 to km 43,800: Masonry wall supported with rail piles.

9.8 VENTURE VFX 008 - AIRPORT-GUARULHOS STRETCH KM 25+500 / BONSUCESSO KM 35+440

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Construction of the Strip Fence wall of the LINE 13 Extension in the surface sections. In this VENTURE, the CONCESSIONAIRE has the obligation to prepare the BASIC AND EXECUTIVE PROJECTS, including the rental plan, and implementation of the lane sealing works at the indicated points.

Side via 1 and via 2

Between Guarulhos Airport and Bonsucesso:

- i. Km 28,100 to km 29,000: Masonry wall supported with rail piles;
- ii. Km 30,400 to km 31,500: Masonry wall propped up with rail stakes.