Annex 2

to the Tenderers' selection regulations of the closed tender
procurement identification No. EDZL 2016/2 CEF

TECHNICAL SPECIFICATION

CONSTRUCTION DESIGN OF RAIL BALTICA'S AIRPORT RIGA RAILWAY
STATION, RELATED INFRASTRUCTURE, AND OVERPASS
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1. INTRODUCTION

1.1. According to the delegation contract No. 2015/-77 concluded on 29 December 2015 by and between the Ministry of Transport and the company SIA “Eiropas dzelzceļa līnijas”, the latter is assigned to carry out procurement procedures, procuring a building design and construction works for Stage One of European gauge (1435 mm) railway line Rail Baltica in Latvia (hereinafter – Project), insofar as it is stipulated by the Funding agreement No. INEA/CEF/M2014/1045990 of 31 July 2014.

1.2. According to the final report drafted by the general partnership „RB Latvija“ (project „Detailed technical study and environmental impact assessment of the Latvian section of the European gauge railway line Rail Baltica“, ID Nr.SAM 2012/12 TEN-T), the implementation of Stage One activities of Rail Baltica railway line as stipulated by the Funding agreement shall be done in several phases, covering the design of the central section, Riga passenger station (including a bridge over Daugava) and construction of Rail Baltica's railway stations, related infrastructure and an overpass at the Airport Riga.

1.3. According to Article 7(1) Point 11 and Article 17(1), and Article 17(2) of the Spatial Development Planning Law, the Latvian National Development Plan for 2014-2020 and the Transport Development Guidelines for 2014 - 2020, and considering the intended activity's approval conditions as part of the environmental impact assessment, the European gauge public use railway infrastructure has been assigned the status of an object of national interest with the Cabinet of Ministers decree No. 468 of 24 August 2016. With the Cabinet of Ministers decree No. 467 of 24 August 2016, and according to Article 221 of the Railway Law, the Cabinet of Ministers has passed a decision on the intended activity of construction of European standard gauge public use railway infrastructure line Rail Baltica.


2. LIST OF DEFINITIONS

2.1. **Rail Baltica** - a future railway line preventing missing links in the European railway network and improving the existing network infrastructure on the route Warsaw – Kaunas – Riga – Tallinn – Helsinki, and ensuring full railway interoperability and better railway usage indicators in passenger and cargo traffic. The project ensures Baltic State integration into the EU railway area. The project is the part of the TEN-T core network North Sea-Baltic corridor;

2.2. **Technical specification for interoperability (TSI)** - a specification adopted by the implementing regulation or decision of the European Commission in order to ensure the interoperability of the European Union rail system;

2.3. **Design guidelines** - set of predefined and standardized technically and economically justified engineering and design solutions for Rail Baltica to be applied at design, construction and operation phases of the railway. Design guidelines are mandatory for all stakeholders involved in design and construction of the railway;

2.4. **Building design** - an aggregate (a compilation) of graphic and text documents and 3D models necessary for the implementation of a construction conception;

2.5. **Building design in the minimum composition** - the necessary aggregate (compilation) of graphical and text documents which demonstrates main idea of the
structure (scope, placement of the structure, type of use of the structure) and is the basis for the issuance of a construction permit;

2.6. **Construction permit** - an administrative act with conditions for implementation (realisation) of a construction conception on site – for designing and construction work – until accepting (acceptance) of a structure for service;

2.7. **Construction intention documentation** - an aggregate (a compilation) of the documents containing graphical documents, text documents, calculations and other information regarding construction intention;

2.8. **Consolidated preliminary design** - evaluation of the preliminary design from a Technical Specifications of Interoperability, Rail Baltica Design Guidelines and solution optimization point of view;

2.9. **Contractor** - a person or an association of persons with whom the contract was awarded as a result of the procurement;

2.10. **Technical regulations** - binding requirements issued by the owners of affected facilities or communications;

2.11. **The Project** - the elaboration of building design documentation and author's supervision aimed to construct a Rail Baltica railway in the section from Zolitūdes Street, Riga, to Riga International Airport;

2.12. **The Global Project** - design and of Rail Baltica railway in all three Baltic states;

2.13. **The airport** - Riga international airport (RIX, EVRA);

2.14. **RB Rail** - multi-national joint venture of the Republics of Estonia, Latvia and Lithuania, which has been established to implement Rail Baltica and is the central coordinator for the Rail Baltica project;

2.15. **Master design** - the first major deliverable for the Detailed Technical Design process, which contains all technical parts of the design and consists of explanatory documentation and technical drawings. The purpose of the Master Design is to determine and ensure the Client and the Contractor of the principal outcome of the Detailed Technical Design. No changes are expected after the approved Master Design barring exceptional circumstances. The technical solutions defined in the Master Design shall provide sufficient and clear detail of the project scope for the appropriate authorities to evaluate the interoperability, safety, environmental aspects, rationality and technical performance of the railway and related facilities to endorse the project;

2.16. **Building information modeling (BIM)** - a process (and relevant software tools) involving the generation and management of digital representations of physical and functional characteristics of places;

2.17. **Notified Body (NoBo)** - the body which is responsible for assessing the conformity or suitability for use of the interoperability constituents or for appraising the ‘EC’ procedure for verification of the subsystems, and as indicated in this quality in the relevant database of the European Commission.

3. **GENERAL INFORMATION**

3.1. Service aim is the elaboration of building design documentation and author supervision aimed to construct a Rail Baltica railway in the section from Zolitūdes Street, Riga, to International Airport Riga by gradual implementation of all building
designs according to Article 3 herein. See annex 1 for master plan of the railway route.


3.3. Title of procurement – „Construction design of Rail Baltica’s Airport Riga railway station, related infrastructure, and overpass“;

3.4. Identification No. – EDZL 2016/2 CEF;

3.5. Classification of structure according to the construction process – Group 3 structure;

3.6. Construction type – new build;

3.7. Work delivery time is set to 17 calendar months.

4. DESIGN TASK

4.1. Building designs to be elaborated within the contract:

4.1.1. Elaboration of building design of Rail Baltica embankment with retention wall and relevant railway infrastructure elements in the section from Zolitūdes Street to Mazā Gramzdas Street, incl. Rail Baltica railway overpass over Platones Street and railway overpass over K.Ulmana Gatve;

4.1.2. Elaboration of building design of Rail Baltica overpass and relevant railway infrastructure elements in the section from Mazā Gramzdas Street to railway station at Airport Riga.

4.1.3. Elaboration of building design of Rail Baltica railway station at International Airport Riga with building and platforms;

4.1.4. Elaboration of building design of Rail Baltica overpass in the section from railway station at Airport Riga to Dzirnieku Street;

4.1.5. Elaboration of building design of Rail Baltica rail tracks in the section from Zolitūde Street in Riga to railway station at Airport Riga;

4.1.6. Elaboration of building design of Rail Baltica rail tracks in the section from railway station at Airport Riga to Dzirnieku Street in Mārupe Municipality;

4.1.7. Elaboration of building design of Rail Baltica railway catenary line in the section from Zolitūde Street in Riga to railway station at Airport Riga;

4.1.8. Elaboration of building design of Rail Baltica railway catenary line in the section from railway station at Airport Riga to Dzirnieku Street in Mārupe Municipality;

4.1.9. Demolition of buildings standing in the way of Rail Baltica project implementation in Mārupe Municipality, in the route section from Mazā Gramzdas Street to Dzirnieku Street:

4.1.9.1. Elaboration of design for relocation of Checkpoint No 6, including design for demolition. Building cadaster ID 80760020056006

4.1.9.2. Elaboration of design for demolition of hangar building. Building cadaster ID 8076002007182

4.1.9.3. Elaboration of design for demolition of parking lot checkpoint building. Building cadaster ID 8076002007063.

4.1.9.4. Elaboration of design for demolition of office building. Building cadaster
ID 80760020050008
4.1.9.5. Elaboration of design for demolition of garage building. Building cadaster ID 80760020050009
4.1.9.6. Elaboration of design for demolition of boiler house. Building cadaster ID 80760020050003
4.1.9.7. Elaboration of design for demolition of office building at fuel farm. Building cadaster ID 80760020001007
4.1.9.8. Elaboration of design for demolition of fuel farm. Building cadaster ID 80760020007029; 80760020001008
4.1.9.9. Elaboration of design for demolition of concrete factory. Building cadaster ID 80760020007037

4.1.10. Demolition of buildings standing in the way of Rail Baltica project implementation in Riga City, in the route section from Zolitūdes Street to Mazā Gramzdas Street:
4.1.10.1. Elaboration of design for demolition of building in Platones Street 1/3, Rīga. Building cadaster ID 01000820488001
4.1.10.2. Elaboration of design for demolition of buildings in Vilkupurva Street 24, Rīga. Building cadaster ID 01000820211001; 01000820211002; 01000820211003; 01000820211004; 01000820211005; 01000820211006.

4.1.11. When elaborating railway design within projects mentioned in 4.1.1., 4.1.2., 4.1.3., 4.1.4. the contractor must design only the installation infrastructure for signalling, interlocking, and telecommunication systems. Complete design of above mentioned systems is not necessary as design of signalling, interlocking, and telecommunication systems will be elaborated at later stage of project by another company.

4.2. Survey works

4.2.1. Before launching design works, the Contractor shall undertake survey and preparation works, and their output shall be included in the content of building design. At least the following survey works shall be carried out within the survey:
4.2.1.1. Within the scope of design, site visit of existing buildings and their structures, internal and external public utilities networks, in case of need – technical survey and opening of structures or public utilities' networks;
4.2.1.2. Clarification of available and relevant capacities of public utilities networks;
4.2.1.3. Topography surveys which are relevant to completely undertake the design works. See annex 2 for topography survey which are at the disposal of Contracting Authority;
4.2.1.4. Geotechnical survey. See annex 3 for geotechnical which are at the disposal of Contracting Authority;
4.2.1.5. Calculation of relevant powers and loads;

4.2.2. Contracting Authority provides the Contractor with survey materials which are at the disposal of Contracting Authority.
4.3. **Requesting and receiving technical regulations**

4.3.1. The Contractor shall be responsible for requesting and receiving technical regulations relevant for the elaboration of building designs;

4.3.2. Contracting Authority provides the Contractor with relevant authorisations to request and receive technical regulations.

4.4. **Elaboration of the building design in the minimum composition**

4.4.1. Considering the intended construction and envisaged construction type, the Contractor shall prepare and fill in the application for construction intention.

4.4.2. The designer of building designs drafts a design tasks for each individual building design with a reference to which technical drawings will be elaborated. The content of the building design included all sections indicated in the performance description along with other relevant plan sections, technical drawings for the plan content to be complete in the end. The design task is signed by the person who proposed the construction, i.e. the Contracting Authority, and by the developer of the building design, i.e., the Contractor. The design task shall indicate the key usage type and parameters of the structure to be designed, and the territory planning and public utilities’ networks design requirements. If necessary, special terms shall be indicated (e.g., recommended structures and construction products, technology). In case of elaboration of building demolition plan, the design task shall list requirements imposed on the demolition works’ plan.

4.4.3. The construction intention documents are elaborated according to laws and regulations on construction and the respective municipal (Riga City and Mārupe municipality) development planning documents, materials of the feasibility study of the Project.

4.4.4. According to respective laws and regulations, technical or special conditions are needed at the elaboration of the construction intention documents. The Contractor shall request and receive for the construction intention the relevant technical or special rules from governmental or municipal authorities, and owners of public utilities' networks.

4.4.5. Construction intention documents are elaborated in four original copies.

4.4.6. Approval by third parties is borne on the master plan of building design (general plan of a territory to be designed elaborated on a valid topographic plan template at building design content with structures, facilitation elements and public utilities' networks) or as a separate document (e.g., agreement) in order to unambiguously make sure these persons have approved each particular encumbrance, which affects the individual.

4.5. **Elaboration of Master design**

4.5.1. The first major deliverable for the Detailed Technical Design process is the Master Design. The Master Design contains all technical parts of the design and consists of explanatory documentation and technical drawings. The purpose of the Master Design is to determine and ensure the Contracting authority and the Contractor of the principal outcome of the Detailed Technical Design. No changes are expected after the approved Master Design barring exceptional circumstances.

4.5.2. The technical solutions defined in the Master Design shall provide sufficient and clear
detail of the project scope for the appropriate authorities to evaluate the interoperability, safety, environmental aspects, rationality and technical performance of the railway and related facilities to endorse the project. The Master Design shall comply with the Technical Specifications of Interoperability’s and Rail Baltica Design Guidelines.

4.5.3. During the Preparation of Master Design, recommendations of CPTD and any recommended changes to the preliminary design by the Contractor shall be evaluated from technical and financial points of view (both CAPEX and OPEX). The alternative solutions should be proposed by comparing them to the preliminary technical design and they shall be compliant with the EIA requirements and the technical regulations received from stakeholders shall be addressed. The Master Design documentation shall include preliminary approvals from stakeholders in the form of an opinion letter. During the technical solution development, all directly concerned parties shall be involved.

4.6. **Receipt of construction permit and meeting its conditions, elaboration of building design and communication thereof**

4.6.1. The Contractor shall receive a Construction Permit at the State Railway Technical Inspectorate and the respective construction boards in Riga City and Mārupe Municipality.

4.6.2. The Contractor shall inform the society of the received construction permit within the term stipulated by Article 14(7) of the Construction Law by placing a construction board on the land plot on which construction is permitted (at least A1 size, made of weather-proof material). The construction board is placed for a period no less than building permit challenge period.

4.6.3. The Contractor shall draft the building design documentation according to requirements of the concluded contract, performance description, and technical specifications.

4.6.4. The Contractor shall provide for approval of the building design documentation at relevant authorities.

4.7. **Author supervision**

4.7.1. At the stage of construction, the Contractor shall provide authors supervision service.

4.7.2. The Contractor carries out author supervision according to CoM Regulations No. 500 „General Construction Regulations “of 19 August 2014;

4.7.3. Author supervision shall be ensured for all parts of the technical project by certified experts listed in the tender;

4.7.4. The Contractor shall draft in due time and to submit to the Contracting Authority documents for the inception of construction works according to schedule of construction works;

4.7.5. The Contractor is obliged to undertake site visits to the construction object according to author supervision plan, to control the performance of work and material quality standard conditions, and to enter results of each site visit in the author supervision logbook;
4.7.6. The Contractor is obliged to participate in Construction works meetings and site meetings held at a time agreed upon with the Contracting Authority. Meetings shall be also attended by experts listed in the tender proposal, whose respective parts are constructed during that period. Construction works meetings will be held once a week;

4.7.7. The Contractor is obliged to visit the construction site also if invited to do so beyond regular working hours, provided the Contracting Authority indicates the technical reason for doing so;

4.7.8. The Contractor is obliged to elaborate additional solutions for the building design, if such are needed to undertake construction works;

4.7.9. Considering his scope of expertise, the Contractor is obliged to ensure the construction object is launched into operation;

4.7.10. The Contractor is obliged to check the compatibility of structures, technology and other devices, construction products and materials used for the structure with building design, and to prevent use of incompatible structures, technology and other devices, construction products and materials, if these are not proper replacement units considering those mentioned in the building design;

4.7.11. The Contractor is obliged to check, whether at the object there is recent building design documentation and the construction works performance documentation;

4.7.12. Following a request by the contracting authority or contractor, authorised representative of author supervision shall immediately, but no later than within two hours, arrive at the object to provide a rapid decisions;

4.8. General requirements for the delivery of the performance description

4.8.1. The Contractor shall request and receive construction permits for each single building design according to administrative division (Riga city, Mārupe district); shall elaborate building designs required by these technical specifications, according to which the construction works can be launched independently from other building designs, considering logical sequence of construction works;

4.8.2. The contractor shall clarify and agree the composition of the building design with the Contracting authority within 14 days after signing the contract and provide adjusted time schedule containing the planned date of initial agreement for each drawing and planned finish date for each drawing for further expert’s evaluation while respecting the necessary time for approval. Updated time schedule shall correspond to initial time schedule included in proposal documents.

4.8.3. The building design documentation shall be elaborated at a content and level of detail to enable the Contracting Authority to commission construction works afterwards, and so that a construction contractor can clearly identify construction costs and undertake construction works without having to perform extra design works; Structure and details of bill of quantities must be approved by contracting authority.

4.8.4. The Contractor shall elaborate design documentation according to laws, regulations and specifications mentioned in chapter 7 of this document. Railway subsystems shall be designed according to the technical guidelines (RIL) of German railway company (Deutsche Bahn) or equivalent standards which are approved by the Contracting authority. The contractor must be aware of fact that Rail Baltica Design guidelines for Rail Baltic / Rail Baltica Railway are being elaborated at the moment and will have to
be used by the Contractor at further stages of design process. The Contractor shall use the requirements and standards mentioned in this document and Annex 5 of this document so far they do not conflict with the Design guidelines for Rail Baltic / Rail Baltica Railway. In case there will be different technical solutions elaborated before Design guidelines for Rail Baltic / Rail Baltica Railway has been introduced, then Contractor is obliged to inform the Contracting authority, which will take the decision on further action.

4.8.5. Where during the elaboration of the building design new technical rules or other laws and regulations will be passed, the Contractor will have to clarify the content of the building design according to the new rules;

4.8.6. The Contractor shall undertake Road Traffic Safety Directorate (CSDD) audit according to CoM Regulations No. 972 „Road safety audit regulations“ of 25 November 2008;

4.8.7. During elaboration of the building design, the Contractor shall immediately notify Contracting Authority of any changes deviating from the design task or agreed solutions;

4.8.8. Where the statutory requirements do not provide for quality requirements set by the Contracting Authority, in choosing a solution, the Contractor shall apply laws and regulations of higher requirements;

4.8.9. During elaboration of the building design, the Contracting Authority is entitled to undertake changes to solutions of the building design;

4.8.10. Positive experts evaluation must be received for the design according to Construction law and positive NoBo experts evaluation must be received for the design according to EU regulation requirements. When elaborating the time schedule for the design the required time for experts’ evaluation (including time for remedy of deficiencies established at the expertise) must be included. Experts’ evaluation is ordered and financed by the Contracting authority. The planned period for experts evaluation is 2 months.

4.8.11. The Contractor assures the elaborated building design complies with laws and regulations, and undertakes to cover losses incurred to contracting authority due to design works of poor quality or incomplete design works, due to which additional design works shall be done after the building design is accepted and due to which the Contracting authority shall launch an additional construction works procurement;

4.8.12. Where during the Contract performance period there is a need for additional works related to the elaboration of building design, which were initially not scheduled and not included in the Technical Specification, but are absolutely necessary due to unforeseen circumstances and which cannot be technically separated off the contractual building design design works, the contractor is not entitled to reject the performance of such additional works;

4.8.13. The building design is communicated with statutory governmental and municipal authorities, authorities maintaining and monitoring the public utilities’ networks listed in the planning and architecture task, the requirements of which can affect the building design solutions;

4.8.14. During the construction works procurement, the Contractor shall provide answers within 4 days to questions by tenderers regarding the building design elaborated by the Contractor;
4.8.15. The contractor shall guarantee that the newly designed, built station, rail tracks, all systems and structures will be fully integrated in the existing infrastructure, will be completed and functional according to technical specification and technical standards. All developed building designs shall jointly provide for a fully completed and functional railway line.

4.8.16. The Contracting Authority will undertake a study of the project impact on operation of State JSC “Latvijas Gaisa satiksme” air traffic control devices, and the results shall be provided to Contractor, which shall be binding upon it for the elaboration of project solutions;

4.8.17. The Contracting Authority will ensure land acquisition according to solutions contained within Building design in its minimum composition;

4.8.18. The Contractor shall elaborate the building design in 3D, shall elaborate a digital geometric model in BIM (building information modelling) environment of the structure containing information about the functions, technical features, public utilities networks and scope of materials of the structure according to annex No 6 – Specification for BIM model. Information in BIM model shall be updated at least once a week when elaborating the construction design. Access to BIM server must be provided for the Contracting authority for reviewing and commenting. The Contractor shall import all the plans to BIM model and check for any conflicts between various plans of the design. Elaborated BIM model shall be used for generating of bill of quantities. BIM model shall be designed in manner which allows it to be used at further stages of construction and operational stage of infrastructure.

At the start of elaboration of building design documents, BIM model shall be communicated with the Contracting Authority.

4.8.19. The Contractor shall take into account that Contracting authority is performing a safety risk assessment of the project. The probability of risk occurrence and risk level will be determined and consecutively measures to diminish the risk will be proposed. Those measures must be implemented in building design in order to achieve the border values established in EU regulation No 402/2013. According to results of risk evaluation decision will be made regarding the buildings and objects in the railway line.
5. CONTENT OF BUILDING DESIGN IN ITS MINIMUM COMPOSITION (MBP), DOCUMENTS AND SOLUTIONS TO BE INCLUDED

5.1. General

5.1.1. Information about the application of particular national law of a EU member state, considering that the building design shall be elaborated subject to technical requirements of national standards and construction norms of EU member states;

5.1.2. Approvals from:
- owners of land plots, which border with the land plot, where the location of intended construction does not comply with statutory distances, and it is allowed subject to receipt of the respective approval;
- authorities, if this is stipulated by law.

5.2. Content of railway infrastructure section

5.2.1. Situation plan at a scale of 1:2000–1:10000, where the railway partition zone is indicated;

5.2.2. Appropriate design order as stipulated by General Construction Regulations (Cabinet Regulation No. 500, adopted 19 August 2014) which is prepared by the Contractor.

5.2.3. Rail track plan, which indicates the railway infrastructure object location, and route of the railway line to be designed;

5.2.4. Key solutions of the overhead contact line;

5.2.5. Key solutions of the power supply;

5.2.6. Explanatory description about the construction object and construction solutions.

5.3. Content of bridges section

5.3.1. General instructions and key indicators;

5.3.2. Situation layout;

5.3.3. Plain view;

5.3.4. Longitudinal profile.

5.4. Contents of road and street construction part

5.4.1. General instructions and key project indicators;

5.4.2. Explanatory description, containing information about the location of intended construction, envisaged construction type, scope and method of envisaged construction;

5.4.3. Master plan of building design in a respective scale on a valid topographic plan at a scale 1:500;

5.4.4. Characteristic sections/profiles with altitude points, except for cases where a road or street is demolished;
5.4.5. Graphic documents bearing road and street visual solution and altitude points, except for cases when a road or street is demolished;

5.4.6. Facilitation solution plan;

5.4.7. Vehicle and pedestrian traffic organisation description;

5.4.8. Technical or special rules by authorities;

5.4.9. Where launching of the road and street into operation shall be done in stages – division into stages of structure with a remark of the borders and sequence of road and street sections;

5.4.10. Other documents according to local municipality spatial plan, local plan or detailed plan.

5.5. **Contents of building construction part**

5.5.1. Explanatory description of the intended construction, including solutions for access by disabled persons;

5.5.2. General layout of the building design at a respective perceptible scale (1:250; 1:500; 1:1000) on a valid topographic plan;

5.5.3. Plans of building storeys or explication of premises' groups;

5.5.4. Building elevations with altitude points;

5.5.5. Characteristic sections/profiles with altitude points;

5.5.6. Where construction and/or launching into operation shall be done in stages – division into construction stages with a remark of the borders and sequence of sections;

5.5.7. Other documents according to local municipality spatial plan, local plan or detailed plan;

5.5.8. Approvals with those owners of land plots, which border with the land plot, where the location of intended construction does not comply with statutory distances, and it is allowed subject to receipt of the respective approval, and with authorities, if this is required by law;

5.5.9. Other documents or approvals, if required by law.

5.6. **Contents of building demolition part**

5.6.1. Explanatory description containing information about the method applied for demolishing buildings, public utilities' networks, management, scope and processing or burial site of construction waste;

5.6.2. Master plan of the building design at a respective perceptible scale (1:250; 1:500; 1:1000) on a valid topographic plan with a reference to the building and public utilities' networks to be demolished/dismantled;

5.6.3. Other documents, permits, or approvals, if required by law.
6. TECHNICAL REQUIREMENTS FOR MASTER DESIGN

6.1. The technical requirements for the Master Design are as follows:

6.1.1. Prepare technical solutions for the part of Rail Baltica infrastructure, including typical drawings for the railway line, cross-sections, electrification, control, command and signaling (CCS) and communications systems, stops, stations and civil structures – road crossings, river crossings and culverts, pedestrian and animal crossings, utility crossings, landscape design, noise reduction solutions, fencing, etc. The solutions shall comply with the Rail Baltica Design Guidelines.

6.1.2. Doing all necessary investigations required for technical design:
   a. Geodetic survey;
   b. Geological analysis with profiles;
   c. Hydrological survey;
   d. Any other survey necessary to complete Master Design (f.e. requested in EIA or local conditions).

6.1.3. All existing utilities and their connections need to be shown in the design with information of the owner of each specific utility.

6.1.4. Prepare detailed technical drawings for the Rail Baltica infrastructure on a scale 1:1000 in urban environments and 1:2000 in rural territories with a detailing level corresponding to a master design – general, but precise enough so that the main details and the main requirements for precise detailing are clear.

6.1.5. Prepare the necessary crossing schematic drawings according to the requirements for multi-level crossings, ensuring a safe and comfortable crossing of the railway track. Solutions must be created in consultation with respective infrastructure managers and local municipalities.

6.1.6. Design the plans and longitudinal profiles of the proposed crossings to a detailing level that would provide enough input information for the civil designs and work estimation.

6.1.7. /Deleted/

6.1.8. Prepare preliminary cost estimate with a detailed split for infrastructure elements, types of work, sections of railway.

6.1.9. Prepare the final list of real estates needed for the railway and related civil structures.

6.1.10. Prepare technical solutions for the railway, including:
   a. Schematic track layout for the railway including main track and side tracks, station areas, etc.;
   b. Railway plan with related building placement and planned railway track, longitudinal profiles (vertical scale 1:200, horizontal scale 1:2000) and cross-sections and superstructure;
   c. Layout of main control, command and signaling (CCS) and communications systems devices;
   d. Catenary network sectioning and main device layout;
   e. Railway civil structure part: bridges, crossings and culverts, groundwater management systems;
   f. Passenger platforms;
   g. Road and pedestrian segregated-grade crossings;
   h. Noise barriers and other technical solutions for reduction of noise and vibration;
i. Cabling along railway line;
j. Access and maintenance roads along railway line;
k. Communication and utility networks, including crossings.

6.1.11. Includes a collection of all technical regulations received and preliminary approvals by the authorities that issued them.

6.2. **Master Design review procedure:**

6.2.1. Contractor of design works submits Master Design to the Contracting authority, which forward it to RB Rail for review along with its opinion on compliance.

6.2.2. Administrative review by RB Rail – 10 days - compliance feedback.

6.2.3. Review workshop with RB Rail and Client and stakeholders.

6.2.4. Review report provided by RB Rail in up to 20 days after receipt of full package. If compliant, recommendations shall be implemented in Building design.

7. **BUILDING DESIGN CONTENT, DOCUMENTS AND SOLUTIONS TO BE INCLUDED**

7.1. **General part;**

7.1.1. Explanatory note – explanatory description, which contains information about the technical parameters of object to be built, key usage type of object to be built according to classification of structures and solutions for access for disabled persons;

7.1.2. Relevant documents to launch building design;

7.1.3. Specifications of construction works:

7.1.3.1. The volume shall contain a description and all requirements to carry out each and every work listed within the section „List of work amounts“ of each building design. The volume „Specifications” shall be elaborated based on the format and content of „Road specifications 2017“ approved by SJSC „Latvijas Valsts ceļi“, and the technical description shall exclude ambiguous versions;

7.1.3.2. Where any of the works in „Road specifications 2017“ or any other used standard is not described to a sufficient detail, additional specifications shall be elaborated in a similar format;

7.1.3.3. All documents relevant for the construction shall be attached to the volume „Specifications“ (list of benchmarks, key technical data, work descriptions according to the list of scopes: „Preparatory works“, „Earth works“, „Pavement construction works“, „Traffic organisation means“, „List of communication wells“, „List of ramp construction work amounts“, „Structures“, „List of facilitation work amounts“, etc.);

7.1.3.4. The titles of the volumes shall match those used in the section „Bill Of Quantities“ of building design. At the list of work amounts, each position shall contain a reference to the particular clause from the specifications to be used.

7.2. **Topographic survey (TI)**

7.2.1. TI has to be carried out according to the Cabinet of Ministers regulations No. 334 „Regulations regarding the Latvian Construction Standard LBN 005-15 „Regulations regarding engineering survey in construction“ of 30 June 2015
7.3. Geotechnical survey (ĢI)

7.3.1. The Contracting Authority has carried out a geotechnical survey (ĢI) within the route alignment zone (see Annex 3). In order to determine the earthworks amounts at a detailed level, the Contractor shall carry out additional ĢI.

7.3.2. The Contractor shall be liable for carrying out the ĢI of due amount and quality. ĢI shall be carried out according to the Cabinet of Ministers regulations No. 334 „Regulations regarding the Latvian Construction Standard LBN 005-15 „Regulations regarding engineering survey in construction”“ of 30 June 2015 and Cabinet of Ministers regulations No. 265 „Regulations regarding the Latvian Construction Standard LBN 207-15 „Geotechnical design”“ of 2 June 2015.

7.3.3. When making boreholes, each individual soil layer shall be determined the following physical-mechanic features:
   a) Calculated specific weight of soil;
   b) Altitude points of the groundwater level (indicate maximum possible groundwater levels);
   c) Angle of internal friction for each individual soil layer;
   d) Description of the composition of soil, incl. depths of soil layers (coarse, fine, plastic, dusty, etc.);
   e) Calculated soil bond (c);
   f) Other physical parameters of soil according to LBN 005-15.

7.3.4. Static sounding and boreholes:

7.3.4.1. Characteristic dimensions and graphs of static sounding of the soil shall be provided;

7.3.4.2. Geo-technical sections illustrating all boreholes shall be provided; Geotechnical sections shall contain a reference to the existing groundwater level;

7.3.4.3. Corrosion ability of groundwater towards concrete and steel structures shall be determined;

7.4. List of trees to be cut;

7.5. Statement following the technical survey (TIS);

7.6. Energy audit statement;

7.7. Preliminary energy certificate;

7.8. Section on railway infrastructure;

7.8.1. General part:
   7.8.1.1. Documents and materials to launch the design of building design;
   7.8.1.2. Materials of the engineering-geology survey of the land plot;
   7.8.1.3. Explanatory description containing technical parameters of the railway infrastructure object and a reference to the key usage type of railway infrastructure object according to the classification of structures;

7.8.2. Section on rail tracks:
   7.8.2.1. Design of superstructure;
   7.8.2.2. Tracks' layout and longitudinal profile;
7.8.3. Section on earth structure:
7.8.3.1. Design of Cross-section;
7.8.3.2. Water drainage systems;
7.8.4. Bridges, overpasses, culverts;
7.8.5. Passenger platforms;
7.8.6. Road and pedestrian tunnels underneath railway;
7.8.7. Road and pedestrian levelcrossings;
7.8.8. Noise fences, acoustic barriers;
7.8.9. Power supply and catenary equipment;
7.8.10. Section on signalling, telecommunications, control and informatics;
7.8.11. Section on architecture:
7.8.11.1. Sheet about general parameters;
7.8.11.2. General layout of the construction object at a scale 1:500 on a valid topographic plan;
7.8.11.3. Master plan of construction works is elaborated for single construction stages. The following is depicted on master plans of construction works: railway infrastructure objects to be built and to be demolished, existing, preliminary railway infrastructure objects, permanent and preliminary rail tracks and roads, benchmarks and fixation points of attachment axles, public utilities' networks and communications (electricity, water, heat, etc.) with an indication of permanent and preliminary connection points, and placement areas for materials and structures.
7.8.11.4. Aligned plan of the public utilities' networks to be designed at a scale 1:500 on a valid topographic plan;
7.8.11.5. Vertical plan of the territory and facilitation solution plan;
7.8.11.6. Vehicle and pedestrian traffic organisation layout;
7.8.12. Section on utilities' solutions:
7.8.12.1. Building structures;
7.8.12.2. Water supply and sewage;
7.8.12.3. Heating, ventilation and air conditioning;
7.8.12.4. Heat supply;
7.8.12.5. Gas supply;
7.8.12.6. Environmental protection measures;
7.8.12.7. Water supply for fire extinction;
7.8.12.8. Fire protection systems;
7.8.12.9. Internal and external power networks;
7.8.12.10. Electronic communications networks;
7.8.12.11. Other public utilities' solutions;
7.8.13. Bridges, overpasses

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7.8.14. General instructions and key project indicators;
7.8.15. Situation layout;
7.8.16. Plain view;
7.8.17. Plan for setting axles of structures;
7.8.18. Longitudinal profile;
7.8.19. Railway structures (DZK);
7.8.20. Metal structures (MK);
7.8.21. Economy Section:
    7.8.21.1. Information summary on devises, structures and materials, specifications of construction materials and construction works;
    7.8.21.2. Scope of construction works;
    7.8.21.3. Cost calculation (sheet) for construction objects
    7.8.21.4. Work organisation section (the design of work performance):
    7.8.21.5. Time schedule of construction works;
    7.8.21.6. Master plan of construction works;
    7.8.21.7. Procedures for safeguarding railway traffic safety;
    7.8.21.8. Health and safety plan (may be elaborated as an individual document);

7.9. Building design of buildings

7.9.1. General part:
    7.9.1.1. Relevant documents to launch building design;
    7.9.1.2. Engineering survey documents for the land plot according to general building conditions;
    7.9.1.3. Explanatory description, which contains general information about the technical parameters of the building, key usage type of object according to classification of structures and solutions for access for disabled persons;

7.9.2. Section on architecture:
    7.9.2.1. General parameters;
    7.9.2.2. Chapter about territory (TS);
    7.9.2.3. Master plan (GP) of the building design at a respective perceptible scale (1:250; 1:500; 1:1000) on a topographic plan;
    7.9.2.4. Aligned plan of the designed public utilities' networks at a respective perceptible scale (1:250; 1:500; 1:1000) on a topographic plan;
    7.9.2.5. Vertical plan of the territory;
    7.9.2.6. Facilitation and greenery plan;
    7.9.2.7. Vehicle and pedestrian traffic organisation layout;
    7.9.2.8. Architecture solutions (AR);
    7.9.2.9. Architecture solutions, detailed (ARD);
7.9.2.10. Plans of building storeys and roofs with a reference to area of premises and division by premises' groups, explication of premises' groups usage type and titles of each room;

7.9.2.11. Elevations of buildings with altitude points of key elements (including decorative), remarks on the construction products of the façade finishing, decorative and constructive parts, location of technical devices and openings;

7.9.2.12. Characteristic sections/profiles with altitude points of existing and/or planned terrain, floors and key construction elements such as openings in the external walls, parapets, cornices, ridges, roofs, stair landing, height from floor to ceiling, including for suspending ceilings, description of external bordering and inter-floor covering structure layers;

7.9.2.13. Location of technical devices (IE);

7.9.2.14. Specifications of construction products;

7.9.2.15. Engineering solutions of key sections in the building (socle, roof, coverings, windows, door connection sections);

7.9.2.16. Interior (IN).

7.9.3. Section on utilities' solutions:

7.9.3.1. Building structures (foundations, coverings, roof and other load-bearing structures), providing detailed information about the key load-bearing sections of the structures:

- detailed calculation report of building structures with an indication of all loads, load schemes and total calculation model;
- graphic part, which includes the following structure plans, sections/profiles, layouts and nodes;
- Railway structures (DZK)
- Reinforced concrete structures, detailed (DZKD)
- Metal structures (MK)
- Metal structures, detailed (MKD)
- Plastic structures (PK) If necessary

7.9.3.2. Public utilities' network relevant for the building (water supply and sewage, heating, ventilation and air conditioning, power supply, heating supply, gas supply, electronic communication networks, safety systems), solutions thereof (connection schemes, specifications, profiles) and calculation of utilities' consumption, loads and axonometric projections;

- Water supply and sewage (ŪK);
- Heating, ventilation and air conditioning (AVK);
- Gas supply (GA);
- Heating equipment and systems (SM);
- Power supply (EL);
- Electronic communication systems (ESS);
- Low intensity current systems: communications, fire alarm signalling and computer networks, video surveillance (VS);
• Fire extinction automation systems (UAS);
• Control and automation systems (VAS);
• Water supply and sewage, external networks (ÜKT);
• Drainage networks (DT);
• Rainwater sewage networks (LKT);
• Gas supply, external networks (GAT);
• Heating supply, external networks (SAT);
• Power supply, external networks (ELT);
• Electronic communication networks, external (EST);
• Low intensity current systems: communications, fire alarm signalling and computer networks, video surveillance (VS).

7.9.3.3. other public utilities' solutions;

• transportation technologies;
• public utilities' systems;
• mechanical systems.

7.9.4. Environmental protection measures;

7.9.5. Specifications of construction products;

7.9.6. Work organisation project (DOP);

7.9.6.1. Calendar plan of construction works;

7.9.6.2. Master plan of construction works;

7.9.6.3. Master plan of construction works is elaborated for single construction stages. The following is depicted on master plans of construction works: buildings to be built and to be demolished, existing and preliminary buildings, permanent and preliminary roads, location of construction vehicles and cranes, along with their movement routes, benchmarks and fixation points of attachment axles, public utilities' networks (electricity, water, heat, etc.) with an indication of permanent and preliminary connection points, and placement areas for materials and structures;

7.9.6.4. Health and safety plan;

7.9.6.5. Explanatory description;

7.9.6.6. The explanatory description shall describe the general and specific construction circumstances, estimated difficulties and features, justify the total duration of construction works, and indicate the key environmental protection measures and recommendations to safeguard quality control at the construction site;

7.9.6.7. Assembly load schemes during construction and their impact on load-bearing structures and nearby existing buildings;

7.9.6.8. For reconstruction or renewal of buildings put into operation, which shall be undertaken without interrupting their principal function, the following shall be indicated in the work organisation programme:

• which works and in what sequence shall be undertaken without interrupting the principal function of the building, and which works, in what sequence and by when shall be undertaken during interruption periods;
• in general layout of construction works – buildings put into operation, also public utilities' networks and roads, the function of which is not interrupted during reconstruction, along with buildings and public utilities' networks, the function of which is interrupted either partially or completely;
• in the explanatory description – cooperation between the builder and the owner of the building to be reconstructed or renewed, along with measures which will enable uninterrupted performance of key functions of the building and performance of reconstruction or renewal works;
• sites to temporarily place construction products and dismantling materials, and their maximum weight on covering, roof, or other load-bearing structures;
• assembly load schemes during reconstruction and their impact on load-bearing structures and nearby existing buildings.

7.9.7. Description of fire safety measures, overview:
7.9.7.1. Description covering principal parameters of the fire safety, fire load of the building;
7.9.7.2. Fire safety solutions in the master plan (location of buildings and public utilities' structures, construction of external fire extinction systems, provision of fire extinction and rescue works);
7.9.7.3. Fire safety requirements imposed on building structures and planning solutions (e.g., assessment of fire risks, description of areas subject to fire hazards, fire-resistance classes of buildings and utilities' structures, requirements imposed on load-bearing and delimitation building structures, their fire-resistance limits and fire reaction classes, requirements to finishing of building structures, fire load of premises, smoke detection measures, requirements imposed on fire and smoke spread in case of fire, special fire safety measures, considering the features of buildings and utilities' structures);
7.9.7.4. Emergency evacuation solutions;
7.9.7.5. Explosion protection solutions (within premises of explosive settings);
7.9.7.6. Fire protection system solutions (fire detection and alarm signalling system, permanent fire extinction system, fire announcement system, smoke and heat control systems);
7.9.7.7. Provision of uninterrupted power supply for fire protection systems, emergency and evacuation lighting;
7.9.7.8. Envisaged solutions for fire safety of utilities' networks;
7.9.7.9. manual (primary) fire extinction devices (equipping premises with fire extinguishers (calculated) and other fire safety equipment);
7.9.7.10. Special fire safety measures during operation;
7.9.7.11. Assessed energy efficiency of the building for the calculated energy efficiency, if required by Law On the Energy Performance of Buildings;

7.9.8. Economy Section:
7.9.8.1. Summary of devices, structures and construction products;
7.9.8.2. Scope of construction works;
7.9.8.3. Cost calculation (sheet).

7.10. Building design for demolition of buildings

7.10.1.1. General part:
7.10.1.2. Explanatory description containing information about the technical parameters of building, disconnection of public utilities' networks, work organisation, environmental protection measures, facilitation of the territory after completion of demolition works;
7.10.1.3. Section on architecture:
7.10.1.4. General parameters;
7.10.1.5. Section on territory:
7.10.1.6. Master plan of the building design at a respective perceptible scale (1:250; 1:500; 1:1000) on a topographic plan with a reference to the building and public utilities' networks to be demolished/ dismantled;
7.10.1.7. Vertical plan of the territory;
7.10.1.8. Facilitation and greenery plan, if the territory shall be facilitated;
7.10.1.9. Public utilities' networks to be dismantled for the building (water supply and sewage, heating, ventilation and air conditioning, power supply, heating supply, gas supply, electronic communication networks, safety systems), and solutions thereof (disconnection schemes, specifications, profiles)
7.10.1.10. Design for work performance;
7.10.1.11. Economy Section:
7.10.1.12. Summary of devices, structures and construction products;
7.10.1.13. Scope of construction works;

7.11. Roads part
7.11.1. General part
7.11.1.1. Documents and materials to launch the design of building design;
7.11.1.2. Engineering survey materials for the land plot for cases according to general building conditions;
7.11.1.3. Explanatory description containing information about the technical parameters of road and street, including general information about accessibility for disabled persons;
7.11.1.4. Permits and approvals;
7.11.2. Section on architecture, chapter about territory:
7.11.2.1. Sheet about general parameters;
7.11.2.2. General layout;
7.11.2.3. Aligned plan of the public utilities' networks at a scale 1:500 on a topographic plan;
7.11.2.4. Road plan;
7.11.2.5. Vertical plan of the territory;
7.11.2.6. Facilitation and greenery plan;
7.11.2.7. Graphic document containing altitude points and visual solutions of road and street;
7.11.2.8. Characteristic sections/ profiles with altitude points;
7.11.2.9. Specifications of construction products and construction materials;
7.11.2.10. Vehicle and pedestrian traffic organisation layout;
7.11.3. Section on utilities' solutions:
7.11.3.1. Building structures;
7.11.3.2. Public utilities' networks relevant for the road and street (e.g., drift sewage, power supply, electronic communication systems);
7.11.3.3. Technical schemes and calculations;
7.11.3.4. Specifications of construction products and construction materials;
7.11.3.5. Drawings and descriptions of the installation and fixation of construction products;
7.11.3.6. Environmental protection measures;
7.11.4. Design for work performance:
7.11.4.1. Calendar plan of construction works;
7.11.4.2. Master plan of construction works:
7.11.4.3. Health and safety plan (may be elaborated as an individual document);
7.11.4.4. Which works and in what sequence shall be undertaken without interrupting the principal function of the road and street, and which works, in what sequence and by when shall be undertaken during interruption periods;
7.11.4.5. In master plans of construction works
7.11.4.6. Explanatory description;
7.11.4.7. Temporary placement areas for construction products and dismantling materials.
7.11.4.8. Assessment on the possibility to use the structure during construction works or after completion of construction works before launching the structure into operation, usage terms, procedures for checking loads of bridges;
7.11.4.9. Detailed part according to municipal build-up rules;

7.12. Section on Technology

7.12.1. Technology (TN)

7.13. Economy part

7.13.1. Summary of devices, structures and construction products, specifications (IS)
7.13.2. List of the amount of construction works (BA)
7.13.2.1. The amounts of construction works shall be elaborated to a sufficient detail and shall indicate all relevant materials and devices. Sets can only be provided for industrially manufactures elements, devices and equipment. The amounts of construction works shall be clear and unambiguous to enable the construction contractor to calculate costs of construction works without extra preparatory works
and without unjustified risk.

7.13.2.2. The amounts of works shall include all minor units, without which the building cannot be put into operation, such as flagstaff, number plate, plates at rooms, storey plan, evacuation schemes, fire extinguishers, equipment of wardrobe, archive, rooms, etc.

7.13.3. Cost calculation, sheets (T)

7.13.3.1. Cost calculation is carried out according to the Cabinet of Ministers regulations No. 330 „Regulations regarding the Latvian Construction Standard LBN 501-15 „Regulations regarding determination of construction costs“ of 30 June 2015. Cost calculation is carried out for each individual construction object and is merged within a single cost calculation sheet according to Annex 4 of Latvian Construction Standard LBN 501-15 „Regulations regarding determination of construction costs“.

7.14. Design for work performance (DOP)

7.14.1. Calendar plan of construction works;

7.14.2. General layout of construction works;

7.14.2.1. Master plan of construction works is elaborated for single construction stages. The following is depicted on master plans of construction works: buildings to be built and to be demolished, existing and preliminary buildings, permanent and preliminary roads, location of construction vehicles and cranes, along with their movement routes, benchmarks and fixation points of attachment axles, public utilities' networks (electricity, water, heat, etc.) with an indication of permanent and preliminary connection points, and placement areas for materials and structures.

7.14.3. The labour protection and health protection plan;

7.14.4. Explanatory description;

7.14.4.1. The explanatory description shall describe the general and specific construction circumstances, estimated difficulties and features, justify the total duration of construction works, and indicate the key environmental protection measures and recommendations to safeguard quality control at the construction site.

7.14.5. Assembly load schemes during construction and their impact on load-bearing structures and nearby existing buildings

7.14.6. For reconstruction or renewal of buildings put into operation, which shall be undertaken without interrupting their principal function, the following shall be indicated in the work organisation programme:

7.14.6.1. Which works and in what sequence shall be undertaken without interrupting the principal function of the building, and which works, in what sequence and by when shall be undertaken during interruption periods;

7.14.6.2. In general layout of construction works – buildings put into operation, also public utilities' networks and roads, the function of which is not interrupted during reconstruction, along with buildings and public utilities' networks, the function of which is interrupted either partially or completely;

7.14.6.3. In the explanatory description – cooperation between the builder and the owner of the building to be reconstructed or renewed, along with measures which will
enable uninterrupted performance of key functions of the building and
performance of reconstruction or renewal works;

7.14.6.4. Sites to temporarily place construction products and dismantling materials, and
their maximum weight on covering, roof, or other load-bearing structures;

7.14.6.5. Assembly load schemes during reconstruction and their impact on load-bearing
structures and nearby existing buildings.

7.14.7. Traffic organisation plan at Apron 4 of the airport shall be elaborated according to
EASA regulation requirements.

7.14.8. Assessment on the possibility to use the structure during construction works or after
completion of construction works before launching the structure into operation, usage
terms, procedures for checking loads of bridges.

8. PROJECT MANAGEMENT AND METHODOLOGY

8.1. Cooperation with contracting authority

8.1.1. The Contractor bears liability for conclusion of sub-contracts, consultations and
communication of project solutions with any other company, authority, land and
structure owners and experts.

8.1.2. The Contractor shall attend the design meetings organised by the Contracting
Authority at least twice a month, and considering the respective stage in the
elaboration of the building design, the meeting shall be attended by respective
Contractor's experts for the period assigned to elaborate the respective plan sections
keeping the approved time schedule in mind;

8.1.3. The minutes of meeting shall be written down by the Contractor. The minutes of
meeting shall be sent to meeting members on the next business day;

8.1.4. The Contractor shall ensure translation of the meeting into Latvian;

8.1.5. During the design process and at official events (meetings, site visits, approval of
solutions, etc.) the Contractor shall ensure the plan developer shall be represented
only by experts of the respective section listed in the bid;

8.1.6. Solutions proposed, devices and equipment selected, materials and engineering
solutions by the Contractor during elaboration of building design shall be
communicated with the Contracting Authority. The Contracting Authority is entitled
not to approve the solutions proposed by Contractor, if these do not correspond to
requirements of performance description or technical specifications, incl. Rail Baltica
railway line design guidelines, are unreasonable expensive in construction or
operation.

8.1.7. The Contracting Authority is entitled to invite the Contractor to provide a feasibility
study for the selection of a particular solution, material or devices.

8.1.8. The Contracting Authority will review the proposed solutions within 14 days or a
longer term, if the decision requires additional preparation or consultations; the
Contracting Authority will inform the Contractor in advance if it takes longer;

8.1.9. The Contracting Authority will provide the Contractor with the relevant authorisation
letters to submit and receive to responsible authorities documents relevant for
contract performance;
8.1.10. The Contracting Authority is entitled to invite experts to take part in the design process, where such experts might provide an assessment or statement regarding solutions proposed by the Contractor, and might support the Contracting Authority in decision-taking.

8.2. Deliverables

8.2.1. During contract fulfilment, the Contractor submits the following deliverables for each building design according to the Bill of Quantities:

8.2.1.1. Building design in the minimum composition;
8.2.1.2. Master design documentation;
8.2.1.3. Building design to be submitted for expertise;
8.2.1.4. Fully completed building design, which holds a positive expert statement and which has been granted an approval from respective authorities.

8.3. Reports

8.3.1. Inception report

Inception report is submitted within 21 (twenty-one) calendar days after contract conclusion. Content of the report:

- Engaged staff, contact information;
- General information about the contract;
- Organisational workflow;
- Quality assurance system;
- Document circulation and storage system;
- Detailed calendar and cash flow schedule of forecast work performance;
- Meeting administrative liabilities and performance of rules (decrees, insurance, etc.);
- Expected risks and measures to reduce these.

8.3.2. Progress report

The report is submitted within 12 (twelve) calendar days following the end of a calendar month. Preliminary content of the report:

- General information about the contract;
- Engaged staff, contact information;
- Report on the works delivered during the last months and previous periods;
- Updated work schedule and cash flow programme (comparing works completed and planned);
- Observing deadlines in view with the analysis of time schedule by indicating measures to be undertaken in order the Building design is elaborated according to the proposed calendar schedule;
- Proposed actions in order to exclude or reduce existing or future problems, and alleged hinderings in the work process;
• Description of works scheduled for next month;
• Where the changes or clarifications to the progress report affect the sections - organisational workflow, quality assurance system, document circulation and storage system -, the updated version of the respective section shall be submitted;
• Relevant action to be taken by Contracting Authority.

8.4. **Requirements imposed on materials, solutions and devices to be used.**

8.4.1. The contractor shall ensure the Building design includes materials, solutions and devices, which offer an equivalent option, if possible. The building design shall provide for materials, devices and aggregates, the compatibility of which has been assessed according to the Law on Compatibility Assessment and the CoM Regulations No. 156 „Procedures for the Market Surveillance of Construction Products“ of 25 March 2014.

8.4.2. The contractor shall ensure the technical solutions are compatible among all sections of the building design, for example, the chapters about architecture-building structures, water supply, sewage, water supply for fire extinction, heat supply, power supply, etc.

8.4.3. The alignment of chapters of the building design shall include the compatibility of the location of systems, determination of the crossing sites. The relevant clearances underneath mechanical, power supply and low intensity current installations shall be depicted in the building design.

8.4.4. The systems, devices and machines to be designed shall provide for equipping thereof with technical reinforcement elements for safe operation of these, such as block valves, valves, controlling valves, filters, clacks, safety valves, deaerators, measurement tools (thermometers, manometers) etc.

8.4.5. All colours provided for in the building design shall be determined according to NCS or RAL systems; if this is not possible due to technical reasons, the title of the colour catalogue and the paint code shall be indicated.

8.4.6. Flexible joints and compensation joints shall be provided in the building design at places where cracks are expected, which might be due to internal tension, temperature fluctuations, deformations.

8.5. **Requirements as regards design of the building design documentation**

8.5.1. Title block:

8.5.1.1. Title, registration number, address, phone and e-mail address of the person, who elaborated the building design;

8.5.1.2. Registration number of a certificate of a construction company;

8.5.1.3. Title, address, phone, fax and e-mail address of Contracting Authority;

8.5.1.4. Data about the funding party;

8.5.1.5. Title of building design;

8.5.1.6. Title of part of building design;

8.5.1.7. Title of technical drawing;
8.5.1.8. Order number;
8.5.1.9. Abbreviation of the type of building design;
8.5.1.10. Mark and number of the technical drawing;
8.5.1.11. Scale;
8.5.1.12. Name, surname, certificate No. of the manager of building design and/or part of building design, signature and date;
8.5.1.13. Name, surname, certificate No. of the person who elaborates the technical drawing, signature, date;
8.5.1.14. Archive registration number.
8.5.1.15. The developer of the building design may insert the company logotype in the title block.

8.5.2. Above the title block, insert a table designed for listing any changes, which might be introduced to the technical drawing. The table shall inform, who elaborated, checked and approved the changes, along with the date and content of changes, number.

8.5.3. The Contractor shall submit the Building design documentation to Contracting Authority in 6 (six) counterparts, in paper, bearing original approvals (hard cover, single unit), 4 (four) copies of Building design (soft cover, not bound), and in digital form (DWG, BIM model, DOC, XLS and PDF format with enabled search function) in a data carrier in 2 counterparts;

8.5.4. The building design documentation is drafted in Latvian and English. Text of building design drafted in a foreign language shall be translated into Latvian.

8.6. **Time Schedule**

8.6.1. While drafting the bid, the Tenderer shall include a time schedule containing the fulfilment of the following works:

8.6.1.1. Receiving technical regulations;
8.6.1.2. Elaboration and approval of topography;
8.6.1.3. Survey works;
8.6.1.4. Building design in the minimum composition;
8.6.1.5. Submission of construction conception (construction intention);
8.6.1.6. Receipt of construction permit;
8.6.1.7. Elaboration of building design;
8.6.1.8. Audit by Road Traffic Safety Directorate (CSDD);
8.6.1.9. Transferring the building design for expertise;
8.6.1.10. Coordinating the building design;
8.6.1.11. Note on fulfilling the design conditions.

9. **STANDARDS, RULES, LAWS**

9.1. German Railway (Deutsche Bahn) guidelines RIL;
9.2. German Railway Standards (DBS) in cases not governed by TSIs and EN;


9.10. Manual of road signs and marking http://lvceli.lv/wp-content/uploads/2015/05/Ce%C4%BCa-z%C4%ABmju-un-apz%C4%ABm%C4%93jumu-rokasgr%C4%81mata.pdf;

9.11. Road design recommendations http://lvceli.lv/sadarbibas-partneriem/#ieteikumi-celu-projektesanai;

9.12. By-laws of Mārupe municipality;

9.13. By-laws of Riga City;


9.15. LBPA-PS-001:2015 „Requirements to the content and design of the building structures project“;

9.16. LBPA-PS-001:2013 „Examples of the design of technical drawings“;

9.17. LBPA-PS-001:2013 „Example of a calculation report“;

9.18. Where the contractor proposes other standards to be used for design works allowing for higher quality, or which are better than the listed standards, this has to be communicated with the Contracting Authority in advance. In this case, the standards shall be translated into Latvian by the Contracting Authority.

10. ATTACHMENTS

No 1. General layout of the railway line to be designed;
No 2. Topographic survey data;
No 3. Geotechnical survey data;
No 4. Sketch of the railway station building at “Riga” airport;
No 5. Technical requirements;
No 6. Specification for BIM model;