

Terms of Reference

Preparation of Detailed Design for the Integrated Urban Upgrading of Rustavi

I. INTRODUCTION AND BACKGROUND INFORMATION

The Municipal Development Fund of Georgia (hereinafter the Client) is a legal entity of public law whose purpose is to mobilize financial resources from donors including international and Georgian financial institutions, in order to make them available for investments in local infrastructure and services, while simultaneously helping local self-governments in strengthening their institutional and financial capacity.

Background Information for Rustavi

Rustavi is the city in southeast Georgia, Kvemo Kartli municipality . Situated 25 km (16 mi) southeast of the capital Tbilisi.

It has the population of 130,072¹ . Rustavi is the fourth most populous city of Georgia. Its economy is dominated mostly by the metallurgy .

Rustavi is one of the ancient towns of Georgia. The history of Rustavi has two phases: an early history from ancient times until the city was destroyed in the 13th century and modern history from the Soviet era to the present. Rustavi was rebuilt as a major industrial center during the Soviet era. Rustavi is the site of approximately 90 large and medium-sized industrial plants. Modern Rustavi is divided into two parts—Dzveli Rustavi (Old Rustavi) and Akhali Rustavi (New Rustavi). Old Rustavi adheres to Stalinist architectural style while New Rustavi is dominated by a multitude of Soviet-era block apartments.

Rustavi is located along both banks of the Mtkvari River. The city lies at an elevation of 350 metres (1,150 feet) above sea level.

Rustavi has a humid subtropical climate (Köppen climate classification: Cfa²) with hot summers and relatively cold winters.

Overall scope and objectives

The consultant is expected to develop integrated urban detailed design for specific areas in close coordination with the team currently working on the Land Use Master Plan and Development Regulation Plans of Rustavi, financed by the Government of Georgia.

The interventions in Rustavi aim at supporting the town strengthen its economic base and the living conditions of its inhabitants through investments that will improve its chances of becoming a viable tourism hub.

¹ <https://www.geostat.ge/en/modules/categories/41/population>

² Humid subtropical climate

The objective of this TOR is to obtain full detailed design documentation and author supervision services during implementation for below projects :

A. Central area of Rustavi (see the attached map for reference, Annex 1), consistent with the Land Use Master plan and Development Regulation Plans. **Development of detailed design documentation (Urban design/Streetscape) for specific areas.** Streetscape is an inclusive term that refers to an overall form and details of the street-scene. The following main goals for streetscape in urban design are relevant:

- Ensure that, wherever possible, all components at street level are of high quality in terms of design, materials and construction specifications;
- Aim for coherence and compatibility;
- Try to create as much as possible pedestrian-oriented and pedestrian-interested space in core areas;
- Cater for human scale and the needs of persons with disabilities/ elderly / women, youth and children in terms of accessibility, universal design, and inclusive design;
- A safe, clean, accessible and interesting pedestrian environment should be provided with due consideration to micro-climate for pedestrian circulation.
- Pavement should be of adequate width to accommodate pedestrian flows, street furniture and additionally to allow reserves for utilities installations and street trees / landscaping. Pavement surface should be visually attractive and interesting. High-quality pavement surfaces such as patterned blocks, brick paving, or stone finish should be introduced where feasible. Standardized/repetitive street finishes in business and tourist areas should be avoided.
- The provision of active street frontage and various street activities such as shop fronts, bars, cafes at street level and human scale should be encouraged in association with streetscape improvements with a view to adding life and vitality to the city and local economic development.
- Tree planting, shrub beds, landscaped areas should be incorporated to soften the hard edges and to reduce heat build-up of street environment. Tree and shrub species should be carefully chosen, especially with regard to their scenic effect and seasonal color, e.g. color of flower and foliage, in creating a particular character for a street. In order to ensure the provision of shaded pedestrian routes, where necessary, species may need to be physically robust and resistant to traffic fumes. High quality street furniture should be provided to complement the character of the area or the adjacent developments.
- Considerations should be made for persons with disabilities in the design of street furniture, crossings, tactile paving, braille information boards, etc.;
- For street furniture and facilities relating to the road / lanes for non-motorized transport / pavement, such as roadside barriers, road signs, lighting, rubbish bins and acoustic barriers, their locations and designs should be handled with concern over their visual impacts on the overall street-scene.

B. Aslanikashvili Park (Annex 1)

The project area is in the city, in the old Rustavi district. Spatial organization is an important park design element. Spatial organization encourages social interaction and user participation.

All park amenities shall be accessed via a primary or secondary path. Direct access shall be provided to play areas, restrooms, sport fields and courts, and other major activity areas. It is expected that the detailed design proposes technical solutions including but, not limited to the following:

- Universal Design: Creating parks and recreational facilities with diverse elements that accommodate users of all abilities. Creating a fun and enjoyable experience and providing inclusive play areas where feasible. Application of the Inclusive cities: urban area guidelines. Consider the recommendations in the Fair-Shared city guidelines for green and recreational spaces for gender-responsive and inclusive design. [Fair Shared Green and Recreational Spaces—Guidelines for Gender-Responsive and Inclusive Design: Tbilisi Municipality | Asian Development Bank \(adb.org\)](#)
- Landscaping of the park area and provision of additional greenery considering local species
- Environmental audit of existing facilities to be rehabilitated or expanded
- Public art or historical display features;
- Arrangement of public spaces and installation of associated equipment (pergolas, benches, lighting, trash bins etc.);
- New public toilets as necessary (including for people with disabilities, women and youth);
- Arrangement of utilities (including drainage, sewerage, water supply, electricity and connection to the existing network);
- Sustainable Design and nature-based solutions: Incorporating water and energy conservation into landscape, hardscape, and building design to reduce lifetime water and energy usage. Promote recycling and waste reduction best practices. Minimize erosion and air, water, and land pollution. Use non-toxic materials and products, where possible. Procure local materials to assist the local economy and reduce transportation emissions.
- Durability: Utilizing materials and technologies that are durable, easily maintained and can withstand detrimental effects of weather, time, and abuse.
- Irrigation Design, and storm water drainage;
- Outdoor lighting design;

C. Selected Houses (see the attached map Annex1).

The houses were built in Stalinist period and their architectural value is one of the main traits of the city Rustavi. Therefore the buildings are not listed as Cultural Heritage, but importance to preserve their original aspect is very important for Rustavi itself.

Consultant should provide detailed design documentation for rehabilitation of selected houses. In the course of its rehabilitation, it is critical to preserve its architectural, as well as structural side, i.e. new vision for adaptation of the structure in compliance with modern requirements shall be developed based on the detailed studies. All authentic architectural elements of exterior or interior of the buildings shall be identified, measured in details and reflected in photos. In the process of renovation, damaged parts shall be restored carefully and reinstated.

Main rehabilitation works have to be implemented for the facades, roofs, balconies and other external decorations.

Architectural details must be preserved, missing parts be integrated with compatible materials.

Buildings that require considerable structural interventions, and rehabilitation of which, therefore, cannot be limited to the outer envelope facades only.

Improvement of structural properties of the buildings must be proposed.

SCOPE OF ASSIGNMENT, TIMEFRAME AND DELIVERABLES, TEAM PROFILE

The Consultant will carry out the following main activities:

Stage 1: Stocktaking and Survey

Stage 2: Preparation of Concept design documentation.

Stage 3: Preparation of Final Design documentation.

Stage 4: Preparation of Technical Design and BOQ.

Stage 5: Design supervision (Author's supervision)

Stage 1: Stocktaking and Survey

Carry out a rapid desk-review, including stocktaking and preparation of a **work-plan**; Report on Project Site Survey and urban analysis. Conduction of environmental and social surveys (including gender analysis), identify of any surveys maps and survey activities that are required for the design consultancy and plan for obtaining that information and collect information that is needed for evaluation of the environmental and social impacts. The Consultant will acquire and provide information that is needed for evaluation of the resettlement (pre-evaluation of land ownership and scale of impact), as well as number of potential beneficiaries.

A. Central area of Rustavi and

B. Aslanikashvili park:

- **The initial survey** by art experts, historic center of Rustavi, historic buildings and green areas, environmental and social experts ;
- **Systematized photos:** general views of the project area, façades, interior, elements that are valuable from architectural-arts standpoint, photos reflecting general and local damages (photos of high quality and resolution - expanded file of either TIFF or JPEG), photos to document existing environmental conditions including vegetation/flora/fauna and existing materials/wastes/structures that may need to be removed/demolished, photos of surroundings (direct and indirect impact zones), photos of water source for irrigation and outfall of the drainage system;

- **Topo survey** of all project area (topographic plan by UTM, scale: 1:100) with embedded cadastral borders and engineering networks;
- **Pedestrian sidewalks and areas** developed in the master plan should take into the consideration.
- **Cadastral documents** and **information** about the land plots or owners/beneficiaries of the apartments/houses. (The project and current condition to be reflected on topographic plan, the layouts to show the cadastral borders and codes. Information shall be submitted electronically as SHP and DWG files);
- Social safeguards due diligence/surveys based on proposed concept/preliminary design and preparation of relevant documentation (draft SDDR and/or LARP) according to the ADB SPS 2009 and Georgian legislation (if needed) and following the requirements set in the Land acquisition and Resettlement Framework (LARF) developed for the LCIP.
- Scope of LARP implementation tasks (if any) and social safeguards monitoring and reporting requirements of the TORs and bidding documents, including qualification and budget for technical experts.
- Rapid environmental screening of each investment with using of Rapid Environmental Assessment Checklist and exclusion criteria provided in the Environmental Assessment and Review Framework (EARF) developed for the LCIP including detailed description of scope of works, maps showing environmentally-sensitive areas, physical features, physical cultural resources, and other information to support the proposed categorization
- Scope of environmental assessment studies and environmental audit of existing facilities, and requirements of qualification and budget for technical experts.
- The most recent photos for the project facility (facilities);
- United topographic map (measurement), reflecting existing trees-plants and structures-building;
- General geological survey of the site;
- General hydrogeological survey of the site;
- Dendrology survey report;
- Information on engineering networks from the point of connection source finding to power, water supply, heating, gas supply and sewage systems;
- Potential sites for disposing excess material (mud, soil, rocks) and construction waste, prepare brief description (including cadastral information) and maps of suggested sites;
- Statutory permits/clearances/approvals to be obtained
- Photos and preliminary inventory of trees and vegetations in the direct and indirect impact zones
- Review all existing underground and surface communications within the SP site (water supply, sewage system, etc.);

C. Selected houses:

- **The initial survey** by art experts, historic building report and recommendations on spatial-planning and compositional solutions of the construction to be executed on the project site;
- **Architectural survey** - measured data for Rustavi Houses to reflect the local damages (area sketches; scale drawings showing the sizes and benchmarks_ scale: 1:50; architectural details _ scale: 1:25, 1:20, 1:10; templates _ scale: 1:1; textual description);
- **Report** on detailed description and documentation of all missing/partially collapsed elements, with individual “passport” on current status, level of damage, level of stability and required intervention (e.g. full reconstruction, reinterpretation, restoration, etc).
- Social safeguards due diligence of potential land acquisition and resettlement impacts (both temporary and permanent) associated with rehabilitation works and preparation of relevant documentation (draft SDDR and/or LARP) according to the ADB SPS 2009 and Georgian legislation (if needed) and following the requirements set in the Land acquisition and Resettlement Framework (LARF) developed for the LCIP.
- Scope of environmental assessment study including the Heritage Impact Assessment (HIA), qualification and budget for technical experts, permits/clearances to be obtained, detailed description of scope of works, maps showing physical features, physical cultural resources, and other information to support the proposed categorization
- Heritage Impact Assessment (HIA) and workplan (this is critical for the preparation of the Concept Design, detailed design, bid documents, and environmental assessment report)
- Photos to document existing environmental conditions including vegetation/flora/fauna and existing materials/wastes/structures that may need to be removed/demolished, photos of surroundings (direct and indirect impact zones);

All presented documentation in this stage must be approved by all stakeholders, to proceed with the next stage.

Stage 2: Preparation of Concept design documents

General Requirements:

Prepare project concept including project outcomes and sustainability outcomes, quality aspirations and spatial requirements undertake feasibility studies agree project budget source site information including site surveys prepare project programme prepare project pxecution plan. Approximate cost estimations for each of the option/alternative interventions including costs of operation and maintenance; The implementation plan, in the form of a written report, that reflects the implementation schedule of works and rationale within the approved amount works package. Preliminary cost estimates including operation and maintenance costs;

A. Central area of Rustavi and

B. Aslanikashvili park:

The Consultant shall develop preliminary conceptual design consistent with the sustainable design methodology (The intention for the preliminary design is, in part, to assist the Client in assessing the alternatives/options and their feasibility, and to confirm their value with the purpose of deciding with option to pursue at the stage of the Detailed Design).

- Explanatory Note (detailed summary of issue and determination of ways for its solution, justification of selected methodology);
- Preliminary landscape architectural and architectural alternatives delivered in Sketches and conceptual drawings, 3D Visualization);
- Architectural measurement (plans, façades, sections);
- General Layout (Scale 1:200), reflecting the existing object on General Layout;
- Main structural solutions;
- Minor architectural shapes (as per requirement);
- Landscape layout and relevant sections/elevations at appropriate drawing scale (eg. 1:500 – 1:200) showing the landscape-spatial and functional characteristics of the intervention and its integration in the urban context of the entire settlement. The drawings should be presented in the proper scale (e.g. for accurate details should be from 1:1- till 1:25, for infrastructure and buildings should be at 1:100 etc.) to assure readability and technical accuracy. The drawings of landscape fittings can suggest standard appropriate “green” and “brown” features available in the market, with suppliers’ designs and details at appropriate scale or replaced by images of fittings available in the market and installed in other similar parks;
- Final inventory of trees and vegetations in the direct and indirect impact zones;
- The consultant shall submit draft versions of the required environmental and social safeguard surveys and documentation required by the EARF and LARF developed for LCIP, legislation of Georgia and ADB’s Safeguard Policy Statement (SPS) 2009;

C. Selected Houses:

- Submission of concept design (option) of architectural and structural solution, in view of anticipated utmost (maximum) loads of the building and relevant sizes of the building;
- Site layout plans and masterplan (scale: 1:500; 1:1000) to include the schemes for movement of vehicles and pedestrians, along with the anticipated parking;
- Architectural drawings (layouts, sections, façades, details, units) – 1:100; 1:50; 1:25;
- Site arranging layouts, sections, details (1:100; 1:50);
- General Executive summary (summarizing current condition and measures envisaged as per design);
- Site improvements and drawings for small shapes;
- Renders, photomontage and photos;
- The consultant shall submit draft versions of the required environmental and social safeguard surveys, Heritage Impact Assessment, and documentation required by the EARF and LARF developed for LCIP, legislation of Georgia and ADB’s Safeguard Policy Statement (SPS) 2009;

All presented documentation in this stage must be approved by all stakeholders, to proceed with the next stage.

Stage 3: Preparation of Final Design documentation

General Requirements:

An extension of the concept design phase, the final design phase takes the design and results of the first phase a step further. During this phase, the architectural designer finalizes the design selected by the client and starts working on general structural details of the building, and the materials to be used.

A. Central area of Rustavi and

B. Aslanikashvili park:

- Explanatory Note (detailed summary of issue and determination of ways for its solution, justification of selected methodology);
- Architectural measurement (plans, façades, sections);
- General Layout (Scale 1:200), reflecting the existing object on General Layout;
- Minor architectural shapes (as per requirement);
- Cost estimation;
- detailed specification of materials end quantity.
- Landscape layout and relevant sections/elevations at appropriate drawing scale (eg. 1:500 – 1:200) showing the landscape-spatial and functional characteristics of the intervention and its integration in the urban context of the entire settlement. The drawings should be presented in the proper scale (e.g. for accurate details should be from 1:1- till 1:25, for infrastructure and buildings should be at 1:100 etc.) to assure readability and technical accuracy. The drawings of landscape fittings can suggest standard appropriate “green” and “brown” features available in the market, with suppliers’ designs and details at appropriate scale or replaced by images of fittings available in the market and installed in other similar parks;

C. Selected Houses:

- anticipated utmost (maximum) loads of the building and relevant sizes of the building;
- Site layout plans and masterplan (scale: 1:500);
- Architectural drawings (layouts, sections, façades, details, units) – 1:100; 1:50; 1:25;
- Site arranging layouts, sections, details (1:100; 1:50);
- Renders, photomontage and photos;
- Cost estimation;
- detailed specification of materials end quantity.
- The consultant shall submit draft versions of the required environmental and social safeguard surveys, Heritage Impact Assessment, TORs, and documentation required by

the EARF and LARF developed for LCIP, legislation of Georgia and ADB's Safeguard Policy Statement (SPS) 2009

All presented documentation in this stage must be approved by all stakeholders, to proceed with the next stage.

Stage 4: Preparation of Technical Design and BOQ

General Requirements:

Stage 4 involves the preparation of all information required to manufacture and construct a building. The core documents at the start of Stage 4 are the Responsibility Matrix, the Information Requirements and the Stage 4 Design Programme, which is heavily influenced by the Procurement Strategy. This includes all works required with the aim of producing a completed set of bidding documents.

This include, but are not limited to: (1) prepare detailed designs (landscape architectural, architectural, engineering, dendrology planning, lighting, drainage etc.) and technical specifications including all necessary data collection, surveys and analysis to cover all aspects of detailed design; (2) technical specifications, (3) technical reports; (4) bills of quantities – BoQs (priced and unpriced), (5) economic analysis; (6) work schedule and bidding documents preparation. The detailed design drawings (projects) will be prepared on the basis of approval of selected preliminary designs and developed according to the sustainable design methodology.

- Prepare detailed designs, BoQs, technical specifications, technical reports and works schedule selected priority investment projects to make them ready for bidding.
- Final versions of environmental and social safeguards reports (including gender analysis) and surveys in compliance with requirements of the EARF and the LARF developed for LCIP, legislation of Georgia and ADB's Safeguard Policy Statement (SPS) 2009;
- List, photos and locations of trees and vegetation to be removed/cut/replaced/translocated;
- Economic analysis (should include capital expenditures required for project implementation as well as average annual operation and maintenance costs. The named data should be provided for each possible alternative solution of project design (based on technical specifics of the project, at least two alternative technological solutions should be presented). The deliverables should also include methodology of each alternative of cost calculation with respective clarification and reference to the data sources.
- Detailed and general specifications of Bidding Documentation;
- Feasibility Study and alternative Cost Estimate;

A. Central area of Rustavi and

B. Aslanikashvili Park:

- General Executive summary of Architectural Part, which is to include the, as well as to separate buildings and structures;

- Topographic plan;
- The layout plan of the project site in fine scale to show the infrastructure of the city (scale: 1:5000 or 1:10 000);
- Explanatory Note (detailed summary of issue and determination of ways for its solution, justification of selected methodology);
- Topographic survey by applying of UTM - (International) System of Coordinates;
- Photos reflecting existing situation;
- Situation Plan (Scale: 1: 1000);
- General Layout (Scale 1:200), reflecting project facilities to be rehabilitated on the General Layout;
- Architectural measurement (in case of requirement (Scale: 1:100, 1:50));
- Architectural working drawings: plans, sections, façades, details, joints (Scale: 1:100, 1:50, 1:25), specifications;
- Registers for lining, accomplishment works, specifications for floors, ceilings and door/windows;
- Detailed drawings for small architectural shapes (Scale: 1:50, 1:25, 1:20);
- Structural working drawings (Schemes, details, joints, specifications (Scale: 1:100, 1:50, 1:25));
- Engineering part – power network, water disposal, water supply, weak currents (schemes, details, joints, specifications) (in case of requirement);
- Vertical planning design for the site;
- Draft Method Statement to comprise of the list of required machinery, time-schedule for works and tentative Financial Schedule;
- Registers and Cost Estimate for quantities of works to be executed – Resource and Detailed versions;
- Determination of load on engineering communication network for obtaining technical conditions from relevant institutions, as required;

C. selected Houses:

Architectural Part:

- General Executive summary of Architectural Part, which is to include the, as well as to separate buildings and structures;
- Topographic plan;
- The layout plan of the project site in fine scale to show the infrastructure of the city (scale: 1:5000 or 1:10 000);
- The design for rehabilitation, shop drawings: layouts, sections, façades, interior openings (showing the sizes and benchmarks scale: 1:100, 1:50), fragments and details, scale: -1:25, 1:20, 1:10 and 1:1), specifications showing types of works and material to be applied;
- Façades of the buildings and structures to be planned, scale: 1:100; 1:50;
- Longitudinal and lateral sections of the buildings and structures to be planned, scale: 1:00; 1:50;

- The plans for roofing of the structures-buildings showing the water removing scheme, scale: 1:100; 1:50, detailed drawings and units for fragments of water discharge outlets (scale: 1:5, 1:10 or 1:20), quantitative specifications for works and material (if required);
- Plans for labeling of walls and partitions of the buildings and structures to be planned, showing their types, scale: 1:50, detailed drawings and units for fragments of types of walls and partitions (scale: 1:5, 1:10 or 1:20), quantitative specifications of works and material;
- The plans for labeling of openings (clearances) of structures-buildings to be planned and types of doors/windows, scale: 1:50, detailed drawings for the types of door/windows (scale: 1:5, 1:10 or 1:20), quantitative specifications of (doors/windows);
- The drawings for architectural details and units of structures-buildings to be planned (stairs, rails, roofing unit and other details), scale: (1:5, 1:10 or 1:20);
- Three-dimensional visualization of high quality (so called renders of high resolution and photomontage)

Structural Part:

- Executive summary for the structural part to include design solutions, recommendations, justification of structural solutions, associated calculations with indication of loads and design values;
- Structural shop drawings for existing structures-buildings and the parts to be planned (layouts, details, units (scale. 1:100, 1:50, 1:25);
- Quantitative specifications for works and materials;

All presented documentation in this stage must be approved by all stakeholders, to proceed with the next stage. The Consultant shall prepare the required documents and project dossier as requested by law to obtain approvals. Follow the process as required.

Stage 5- Design supervision (Author's supervision)

Under the stage 5, a consultant is obliged to take part in the consultations for technical solutions raised during the rehabilitation/construction works. Additionally, in the course of the project implementation (rehabilitation/construction works), if required (due to omission and/or incorrectness of the detailed design and relevant project documentation), the consultant is obliged to make adjustments to the design solutions, adjustment or amendment of the detailed design documentation, preparation and approval of working documents, constructions volumes and other relevant changes .

At the end of the stage 5, the consultant should submit report on project implementation, stating the information about the changes in design, the reasons behind the design amendments and relevant technical solutions achieved, information about the challenges and the lessons learned through the project implementation.

Standards

The design shall be developed to adhere to construction standards and regulations being effective in Georgia, as well as in compliance with the requirements of European Standards.

If the monument of cultural heritage is found within the boundaries of the project area, the associated methodology shall be developed in compliance with the requirements of Georgian Law “On Cultural Heritage” and international experience from monuments preservation standpoint.

In the course of design preparation, there shall be considered the requirements of at least the following normative documents (but not restricted to):

- Georgian Law on Cultural Heritage (08. 05.2007).
- The Athens Charter;
- СП 118.13330.2012 Public structures and buildings;
- Interior Graphic Standards Second Edition Corky Binggeli, ASID Editor-in-chief The Magnum Group Illustrator John Wiley & Sons, INC;
- The Architects’ Handbook. Edited By Quentin Pickard, RIBA;
- Metric Handbook, Planning and Design Data. Edited by David Adler. Second edition (as Metric Handbook) 1999;
- Ernst end Peter Neufert, Architect’s Data. Third Edition, Blackwell Science;
- Offices Construction and Design Manual Ansgar Oswald With an introduction by Hajo Eickhoff;
- Spaces for Innovation Kursty Groves and Oliver Marlow.
- In the process of designing the engineering utilities, requirements of construction standards and regulations (but not restricted to) shall be considered:
- СНиП 2.04.01-85* - Indoor water supply and wastewater networks of the building;
- СП 31-110-2003 Design and installation of electrical installations in residential and public buildings;
- ППБ-0-148-87. Fire safety regulations for sports facilities;
- NFPA (National Fire Protection Association) Codes and Standards;
- Foundations of buildings and structures – (pn 02.01-08);
- Construction Climatology – (pn 01.05-08);
- Outdoor networks and structures of water supply and sewerage systems – (07 07.01-09); and
- Laws, rules, and regulations on environment, health and safety.

IMPLEMENTATION TIMEFRAME AND DELIVERABLES

The Consultant will carry out its overall assignment in **22 weeks** plus author’s supervision services during implementation of civil works. Indicated timeframe is given excluding approval of the stage deliverables from the Client (the MDF).

Only after written instruction from the MDF to move to the next stage the Consultant shall commence respective works.

The following list of key deliverables and milestones serves as a guide for the consultancy. The Consultant Team is expected to propose a **Work Plan** outlining project sub-Stages (e.g. additional internal review/consultation sessions) and refine the timeline to meet the objectives of the assignment effectively, for Client’s agreement:

Deliverables	Submission Date	Language	Format	Correlation Rate to Contract Price
Stage 1 – Stocktaking and Survey:	Within 4 weeks from commencement of services	Georgian/ English	4 printed copies for each project, in A4, A3 size, plans in A1, A0 etc. An electronic copy of all reports, plans and related CAD, Excel, Word, PDF etc. files. The consultant is responsible to update drawings of provide any additional documents if it is required to obtain project approvals and building permits.	10%
Stage 2 – Preparation of Concept design documents.	Within 6 weeks after approval of services under Stage I	Georgian/ English	4 printed copies for each project, in A4, A3 size, plans in A1, A0 etc. An electronic copy of all reports, plans and related CAD, Excel, Word, PDF etc. files. The consultant is responsible to update drawings of provide any additional documents if it is required to obtain project approvals and building permits.	20%
Stage 3 – Preparation of Preliminary design documentation.	Within 6 weeks after approval of services under Stage II	Georgian/ English	4 printed copies for each project, in A4, A3 size, plans in A1, A0 etc. An electronic copy of all reports, plans and related CAD,	20%

			Excel, Word, PDF etc. files. The consultant is responsible to update drawings of provide any additional documents if it is required to obtain project approvals and building permits.	
Stage 4 – Preparation of Technical Design and BOQ.	Within 6 weeks after approval of services under Stage III	Georgian/ English	4 printed copies for each project, in A4, A3 size, plans in A1, A0 etc. An electronic copy of all reports, plans and related CAD, Excel, Word, PDF etc. files. The consultant is responsible to update drawings of provide any additional documents if it is required to obtain project approvals and building permits.	40%
Stage 5 – Design supervision (Author’s supervision).	Within 2 weeks after completion construction works	Georgian/ English		10%

The Consultant will submit all reports and deliverables requested under this assignment to MDF for review and approval. MDF will be responsible for sharing the documentation with the international funds, and with the Local Authorities, and any other interested central and local government authority as deemed necessary.

1. Narrative Qualification Requirements for Key and Non-Key Experts

Title	Specific experience (Years)	Area of Specialization, Qualification	Special Skills and Knowledge, but not limited to
Team Leader/ Architect	10	<p>Design Management experience of implementation of similar size and type projects.</p> <p>Minimum Master's degree in Architecture with further advanced training;</p>	<ul style="list-style-type: none"> ● Documented experience in implementing similar projects and managing team of designers. ● Monitor performance, deadlines, project progress, and conduct a risk management plan to avoid any unexpected incidence that may have a negative impact on the project development. ● Knowledge of the local and international standards for construction/rehabilitation works ● In-depth overall knowledge in detailed design supervision for large, and medium sized civil works projects
Deputy Team Leader - Landscape Designer	8	<p>Landscaping experience of implementation of similar size and type projects</p>	<ul style="list-style-type: none"> ● Will help analysis, identify the setting, and develop the urban connectivity between the museum project and the direct setting and the surrounding city environment. Special attention will be given to the links with the WH monuments.
Civil Engineer	10	<p>Civil Engineering – Design Management experience of implementation of similar size and type projects;</p> <p>Minimum Master's degree in civil engineering with further advanced training;</p> <p>knowledge of international and local design and construction codes/regulations/standards</p>	<ul style="list-style-type: none"> ● Review and certify engineering orders, for subcontracting parts of the works ● Monitor and coordinate performance, deadlines, project progress, and assist in the development of a risk management plan to avoid any unexpected incidence that may have a negative impact on the project development. ● In-depth overall knowledge in detailed design and construction supervision for large, and medium sized civil works projects ● Knowledge of the local and international standards for construction/rehabilitation works

Architect/Urban Designer	10	<p>Architect/Recreation and urban area design, experience of implementation of similar size and type projects;</p> <p>Minimum Master's degree in Architecture knowledge of international and local design and construction codes/regulations/standards</p>	<ul style="list-style-type: none"> ● Conducts the research on the existing building and the surroundings; ● Examines and forms the adjusting project design in contact with the leader; ● Plans and prepares all the architectural project documentation in contact with all the contiguous professionals; ● Consider traffic options and flows. Define parking options in link with the enhancement of the setting; ● Develop Heritage Impact Assessment.
Structural Engineer	8	<p>Civil Engineering – structural Engineering with experience in construction and rehabilitation of buildings and structures, experience of implementation of similar size and type projects;</p> <p>Minimum Master's degree in civil engineering.</p> <p>With conservation and historic monument experience</p>	<ul style="list-style-type: none"> ● Conducts the research on the technical conditions of the existing building; ● If necessary, prepares the constructive project documentation of reinforcement works; ● Prepares the constructive project documentation according to the architectural solutions;
Environmental Specialist	5	<p>Postgraduate qualifications in the relevant field: Environmental Science – environmental impact assessment, Environmental policy and Management with experience in preparation of Environmental documentation (IEE, EDDR, EIA and others) reports and implementation of similar size and type projects;</p> <p>knowledge of international and local regulations for Environmental protection</p>	<ul style="list-style-type: none"> ● Prepares rapid environmental screening of each investment; ● Conducts the pre-study of the environment; ● Develops scope of environmental assessment studies and environmental audit of existing facilities; ● Evaluates the hazards that might accompany the implementation of the project; ● Documents existing environmental conditions; ● Prepares all required environmental assessment reports reflecting the results of the survey and determines the avoidance

			measures of the expected hazards and negative impacts.
National Social safeguards and Resettlement Expert	5	<p>University Degree in Social Science</p> <p>Experience in Social Safeguards assessment, <u>E</u> preparation of social safeguards assessment documentations (SDDR, LARP, RAP etc.) and implementation of similar type of projects funded by IFIs.</p> <p>Knowledge of international and local regulations for Social Safeguard and Involuntary Resettlement</p>	<ul style="list-style-type: none"> • Prepares Involuntary Resettlement screening checklist for each investment for project categorization purpose; • Develops scope of social safeguards impact assessment surveys and tools, including existing facilities; • Prepares Social Due Diligence Report (SDDR) and/or Land acquisition and resettlement plan (LARP) in accordance with Project LARF, ADB`s Safeguard Policy Statement (SPS) 2009 and respective Georgian legislation. • Ensures that the impacts on private properties are minimized or/and avoided maximally. In case of the impacts on the private properties are inevitable, the expert shall reveal potential project affected properties at the initial stage and inform the Client.
Gender expert	5	University Degree in Social or Gender Science	<ul style="list-style-type: none"> • Knowledge of Gender related issues

In addition to the above, the following qualifications are expected to be needed for the development of the assignment: Property evaluation Specialist/Expert, Electrical/electronic engineer, mechanical engineer, transport engineer and economist, hydro technical engineering (water supply, sewerage), procurement specialist, quantity surveyor, and a local cultural heritage expert and others, as identified by the Consultant.

The Consultant will be evaluated and selected on the basis on the composition of the proposed team and the profile, qualifications and experience of the relevant members. The Team Leader is expected to be involved in the field work and to be the main interlocutor with central and local government officials.

No changes in the composition of the team and the team members will be allowed during the implementation of the assignment unless authorized by the MDF. Necessary change is allowed subject to replacement of equal or better qualified expert.

The design services assignment should be performed within **22 Weeks** period.

PREPARATION OF BIDDING DOCUMENTS

The bidding documents shall be finalized based on the Client's comments on the detail designs, by incorporating all the comments, revisions, and packaging strategies. The Consultant shall advise on suitable packaging for all identified contracts. Bidding documents and drawings shall be prepared in a way that is sufficient to invite bids.

Packaging and Contract Documentations (for bidding): The Consultant is expected to provide support to the Client in: (i) contract packaging and management-based implementation plan; (ii) preparation of bidding and contract documents; and (iii) assist the Client in bidding and contractor selection process and bidding evaluation.

The bidding documents will be made with reference to the tender drawings and shall contain, among other things, the following sections: Instruction to bidders, Standard forms (contract), Condition of contract, form of bid and qualification information, Bidding data and Contract data, Technical Specifications, Bills of Quantities, Drawings, Standard forms (Bid).

ENVIRONMENTAL AND SOCIAL REQUIREMENTS

Environmental Requirements

The consultant shall identify if the proposed investments are subject to Environmental Impact Assessment in accordance with the national legislation of Georgia. This includes all works/surveys required with the aim of producing a completed set of environmental documentation required for obtaining of Environmental Decision by the State authority.

If EIA is required for an investment, Environmental Impact Assessment/Screening/Scoping reports and other related environmental documents/surveys will be developed by the Consultant with prior written consent of the Client. If any defect is revealed in the submitted EIA, Scoping Report or other documentation as required, the Consultant shall immediately remedy them and resubmit the revised documents to the client.

Each proposed investment shall be screened with using of the exclusion criteria, Environmental Guidelines for Subproject Selection and the Rapid Environmental Assessment (REA) Checklist provided in the EARF prepared for the LCIP. Investment shall avoid potentially significant adverse impacts that are diverse, irreversible or unprecedented. Initial assessments must include information on site-specific observations such as state of the existing site and land preparation needed, asbestos containing materials, physical cultural resources and likelihood of critical habitat. Based on the results of the initial environmental screening, the consultant shall identify the project category (only Environmental Categories B and C projects – per Bank classification –are eligible), develop all relevant environmental documentation and required surveys (for example, baseline surveys: air, soil, flora and fauna species, vibration, noise and etc.).

At the earliest stage (Stage 1- Stocktaking and Survey), Consultant shall identify potential Physical Cultural Resources (PCRs). The information will be further verified during preparation of the Initial Environmental Examination (IEE) thru field assessment and consultations with regulatory authorities to identify the need and scope of the Heritage Impact Assessment and prepare it accordingly upon Client's request. The Consultant shall ensure the HIA recommendations are considered during finalization of the detail design.

All proposed investments shall comply with all requirements of ADB SPS 2009 and follow procedures set in the EARF and relevant national, and local laws, rules and regulations regarding EIA, environmental protection, pollution prevention (water, air, noise, solid waste, etc.), wildlife protection, core labor standards, physical cultural resources, health and safety, and other laws in specific sectors as indicated below

Consultant shall avoid or minimize the cutting of trees, consultant shall develop inventory of trees in the direct and indirect zones at the Survey and Concept Stage. During the Detailed Design Phase, Consultant shall identify the trees to be affected (cut/moved/translocated) and ensure the bid documents are clear on the responsibility and costs of replanting/replacement/relocation of trees in the ratio of at least 1:3 for ordinary trees and 1:10 for red listed trees in the Detail Design and BOQ. The same replacement ratio of 1:10 for near threatened or vulnerable species as defined by the IUCN Red List will also apply. Cutting of endangered or critically endangered species will not be allowed.

Consultant shall avoid locating subprojects in critical habitats, such as, but not limited to, wildlife/bird sanctuaries, national parks, conservation reserves or core zone of biosphere reserves and shall not directly affect environmentally protected areas, core zones of biosphere reserves and highly valued habitat.

When designing investment infrastructure that involves excavation in urban areas, the relevant authorities must be consulted to ascertain the location of any Asbestos Containing Materials by the consultant.

In case the investment envisages sewage system component, project design will follow ADB's Guidelines for Climate Proofing Investment in the Water Sector: Water Supply and Sanitation.

For investments involving facilities that already exist or are under construction or proposed, environmental compliance audit will be conducted by the consultant. The environmental audit will include on-site assessment to identify past or present environmental concerns, whether actions were in accordance with ADB's safeguard principles and requirements for executing and implementing agencies and identify and plan appropriate measures to address outstanding compliance issues.

Consultant shall identify potential sites and landfills for disposing excess material (mud, soil, rocks) and construction waste, brief description (including cadastral information) and maps of suggested sites and location and distance to the nearest licensed quarry for mining of the natural construction material.

If top-soil stripping is required under projects, the consultant shall submit all required information regarding top-soil management and develop re-cultivation plan (if required by the legislation of Georgia and per the Client's request).

For approved investment projects, Consultant shall prepare all required environmental documents/surveys³, including but not limited to:

- Rapid Environmental Screening Report of each investment with using of Rapid Environmental Assessment Checklist and exclusion criteria provided in the Environmental Assessment and Review Framework (EARF) developed for the LCIP including detailed description of scope of works, maps showing environmentally-sensitive areas, physical features, physical cultural resources, and other information to support the proposed categorization;
- Screening for physical cultural resources (PCR) and preparing the Heritage Impact Assessment report (if required), detailed description of scope of works, maps showing physical features, physical cultural resources, workplan;
- Preparing of audit report of the existing facilities to be rehabilitated or expanded;
- Assessment of impacts of water use and at drainage outfall;
- Environmental and social safeguard surveys and documentation required by the EARF developed for LCIP, legislation of Georgia and ADB's Safeguard Policy Statement (SPS) 2009;
- Photos to document existing environmental conditions including vegetation/flora/fauna and existing materials/wastes/structures that may need to be removed/demolished, photos of surroundings (direct and indirect impact zones);
- Information on statutory permits/clearances/approvals to be obtained
- inventory of trees in the direct and indirect zones at the Survey and Concept Stage;
- Inventory of trees to be affected (cut/moved/translocated) at the detailed design stage;
- Landscaping of the park area and provision of additional greenery considering local species;
- Costs for environment, health and safety, technical experts required pre-, during and post-construction;
- Information on sites and landfills for disposing excess material (mud, soil, rocks) and construction waste, brief description (including cadastral information) and maps of suggested sites and location and distance to the nearest licensed quarry for mining of the natural construction material.

Considering the above-mentioned the consultant shall ensure to have all technical experts and specialists responsible for preparing the required reports and conduct relevant surveys in the team. All required experts (HIA expert, environmental specialist, social specialist, design team and procurement expert) shall be in close coordination with each other and take into consideration all recommendations of the requested environmental documentation in Detail Engineering Design.

Social and Resettlement Requirements

The Consultant shall conduct Social Due Diligence in accordance with ADB's Safeguard Policy Statement (SPS) 2009 and relevant national legislation of Georgia and in compliance with provisions of LARF prepared for the LCIP. Social Due Diligence Report (SDDR) shall cover at least Analysis of project stakeholders, potential direct and indirect impacts and social risks including differential gender impacts and issues in project design with possible social consequences, e.g. effects on livelihoods, disruption of social life and effects on pedestrian safety, etc. A due diligence needs to be conducted based on the

³ All environmental and social documents/surveys shall be developed by the Consultant with prior written consent of the Client

preliminary and/or detailed design to determine any impacts if there are none, this will be the conclusion of the due diligence. SDD to also to cover the public consultations and disclosure of project related materials and grievances redress mechanism (GRM).

In the process of the Detailed design development, the consultant shall ensure that the impacts on private properties were minimized or/and avoided maximally. In case of the impacts on the private properties are inevitable, the Consultant shall reveal potential project affected properties at the initial stage and inform the Client. After prior written consent of the Client, the consultant shall prepare Land Acquisition and Resettlement Plan (LARP – Temporary/permanent resettlement) and addendums (if needed) for the project area and/or ROW fitting the requirements of ADB SPS 2009, Project LARF and and relevant national legislation of Georgia.

Within the preparation of LARP(s), the Valuation for all affected assets and other applicable compensations to be carried out by qualified licensed valuator based on requirements of Project LARF, national legislation and ADB SPS 2009.

To prepare LARP, the consultant is responsible for carrying out the following activities:

- (i) Carry out detailed measuring works within the affected corridor: identify project affected land plots; verify status of land parcels (registered in Public Registry; unregistered legalizable; unregistered non-legalizable; state owned and other), Recheck/verify land status and request land status recognition document as with representatives of local government as well as at National Agency of Public Registry to recognize exact size of land plot. Prepare measurement cadastral drawings and dividing drawings in case of partial acquisition of the land. Conduct the first stage registration of impacted land parcels and divide (and register) them according to the original ROW or Project area. Already divided and properly registered land parcels shall be provided to the MDF stage by stage. Additionally provide to MDF cadastral drawings for state land registration.
- (ii) A detailed measurement survey of all impacts;
- (iii) Census of all Affected Families (AH) and Project Affected People (AP) including full identification of all vulnerable and severely affected AP s . Identify/verify project affected land owners/tenures: identification/verification process shall be carried out in close collaboration with MDF and the representatives of local government. It should be based on information and materials furnished by them about land owners/tenures.
- (iv) In the presence and with the participation of identified land owners/tenures, representatives of local government (confirm with signature) carry out inventory/census of each project affected land parcel and attached buildings/structures (if any) by utilization of preliminary worked out Inventory Form. Prepare measurement drawing for each building/structure. Relevant photo and video (by drone) feature (project affected land plot, building/structure, annual and perennial plants of assessed property) for each affected land plot shall be provided. Photos taken by digital camera have to be provided with date on it.
- (v) A socio-economic census of the AP based on a 100% sample of the AH. The socio-economic survey will cover major socio-economic features of the affected population, including the presence of any specifically known vulnerable groups. During LARP preparation phase, census of APs and detailed measurement surveys (DMS) including SES will reveal all vulnerable groups,

and severely affected AHs, potentially creating facing the risk of impoverishment of an affected household.

- (vi) A full survey of the market rates/replacement cost of affected assets. Independent licensed valuator (expert-audit) shall process data obtained during field survey/inventory. On-site study/survey of data through field visits and verify/calculate unit price as well as total price for each land category, annual/perennial plants and timber trees, plantings and building/structures. Land shall be assessed based on market prices. During assessment of land parcels calculation of market value have to be based on sales comparison approach. Building/Assets have to be assisted based on cost approach methodology. All conducted valuations shall meet the “replacement cost” principle as per ADB SPS 2009.
- (vii) Provide cadastral drawings for each land owner and inventory forms including divided land parcels
- (viii) A schedule action plan for implementation and land privatization (if privatization of land plots is needed);
- (ix) An intensive information and consultation campaign with the AH through meetings to be held in each group and through the disclosure of information materials to be prepared in Georgian and English.
- (x) The establishment of a grievances redress mechanism acceptable to ADB and Government and its disclosure to stakeholders/APs thereof.
- (xi) The consultant will prepare the Documents upon MDF's written request in English and Georgian.

Documentation to be prepared and information collected:

- Prepare a Land acquisition and Resettlement Action Plan (LRAP) and Addendums (if needed)
- Ownership status of each land plot and properties affected by the project
- Number of affected persons (owners, women owners, employees, tenant, residents and etc.)
- Categorization of the buildings/land plots in the project zone
- Determination of current use of buildings /land plots
- Socio-economic survey (demography, education and etc.)
- Assessment of Compensation Unit Values for each type of losses
- Allowances for Vulnerable Groups
- Determination of institutional arrangements and implementation steps together with the Client
- LARP Consultations with the beneficiaries.
- Maps with numbers of residential/land plot numbers
- Video/photo (Drone) documentation
- Database with entered LAR data (format to be agreed with the client beforehand)
- Costs for LAR update and implementation, technical experts required pre-, during and post-construction in regard to social safeguards implementation, monitoring and reporting;
- Other LAR- related materials, as needed

At the request of the MDF, the Consultant will prepare any other social safeguard documentation in accordance with ADB SPS 2009. Preparation of documents should start at the first stage of design preparation.

OTHER RESPONSIBILITIES

The Consultant shall conscientiously fulfill, to the highest professional standards, the role that they have been assigned to play. It will be the Consultant's responsibility to ensure that all intended outputs are delivered in the most efficient and effective manner ensuring value for money at all times. The Consultant will ensure that all outputs are delivered on time, within the budget and to the highest standards.

The Consultant shall develop all projects detailed designs dossier based in the national and international design guidelines (etc. design guidelines for roads, buildings etc.), in order to achieve the highest design standards.

The Consultant shall perform *all engineering, architectural works; quantity surveying, environmental, cultural, social, economic analysis and related works* described so far in the TOR, to support the achievement of the defined project objectives and deliverables, and taking into account the requirements of the Client.

The Consultant shall review all available documentation on the project and shall be solely responsible for the analysis and interpretation of all data received, for the conclusions they reach and the recommendations they make.

The Consultant shall assist the bid evaluation committee in evaluating technical aspects of the offers and prepare a report for further consideration by the Client.

The Consultant shall clearly define the project boundaries and areas of interventions that will be under the scope of the detailed design process. The engineering and architecture design shall take into account to incorporate road safety, accessibility standards (e.g. for disable people etc.), describe urban fixtures, lighting design, greenery, etc. Based in the road design guidelines in order to complete the project to the highest standards.

The engineering and architecture design shall take into account the need for "smart" and effective (technical and esthetic) solutions and use of construction materials that can be implemented, operated and maintained. The final choice for proposed construction/rehabilitation shall be based on technical and financial analyses of alternative designs, and on the opinions of the district engineers, and in consultation with the Client.

Consultants are encouraged, where appropriate, to support the wider economic development of the country by using locally available materials and human resources.

Consultants are encouraged, where appropriate, to support and introduce solutions that drive the development of smart infrastructure. The engineering and architecture design shall take in account the need for introducing the use of urban informatics and technology (information and communication

technology (ICT) and Internet of things (IoT)) to improve the efficiency of services and meet residents' needs and increase quality of life.

III. TIMEFRAME FOR THE ASSIGNMENT

Design Services should be performed within 22 weeks period. The firm will be contracted for the design phase under a lump sum contract. 10 % of the total amount of the contract shall be paid after delivery of the set of the documents for stage 5.

IV. RESPONSIBILITIES AND PENALTIES OF CONSULTANT

The Consultant will be responsible for implementing the entirety of the Stages defined in the scope of the assignment. To this end, the Consultant will bear all the costs related to the employment and mobilization of its team of international and local experts. This includes travel expenditures and subsistence costs.

No facilities will be provided by MDF. The consultant will be expected to arrange office facilities at the project area and elsewhere.

Finally, the Consultant will be responsible for the costs of producing, translating, printing and distributing the information material and reports required to carry out its assignment.

The consultant will be solely responsible for the timely and qualitative fulfillment of all matters cited above under this assignment. Penalties will be applied towards the consultant in case of non-fulfillment of these obligations/services which include but are not limited to such elements as quality of service, time of service delivery and work contracted, reporting to the responsible structures.

V. COORDINATION WITH CENTRAL AND LOCAL AUTHORITIES

The Consultant will work in strict coordination with the MDF as a Project Implementation Unit, responsible for finalizing the overall investment program and managing and monitoring its implementation.

At central and regional levels, the Consultant will also need to interact with the National Agency of Cultural Heritage Preservation (NACHP) under the Ministry of Culture, Agency of Protected Areas (APA) under the Ministry of Agriculture and Environment, the local municipality and other stakeholders for the investment projects, if any, pertaining to their areas of interest. The Consultant will need to interact with MDF concerning the technical aspects of specific investment projects as well as the overall investment program.

The Consultant shall maintain good coordination and interaction with the Client during all stages of the assignment and provide assistance if changes are required for specifications.

VI. REPORTING

Reporting and all deliverables documents must be submitted to MDF in English and Georgian. The Consultant must possess high-level English and Georgian Language skills to ensure effective communication with the Client and stakeholders.

The Consultant should provide translators if required to have good communication with the Client and the Stakeholders during field visits or meetings organized as part of the assignment process.

VII. LIST OF ANNEXES

Annex 1: Project Area Boundaries and Intervention Areas.

ANNEX 1: Development of Urban design of town Rustavi

Preliminary Boundaries of the Project Area are following: