Terms of Reference
for Preparation of Detailed Design Documentation for Tourism Infrastructure Development at Bakuriani Recreation Park in Borjomi Municipality

Introduction

The Municipal Development Fund of Georgia (hereinafter the employer) 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.

MDF programs envisage implementation of various projects including the Third Regional Development Project financed by the World Bank Group and the Government of Georgia (GoG). The aim of the project is to promote tourism development in Mtskheta-Mtianeti and Samtskhe-Javakheti Regions.

The present Terms of Reference (TOR) specifies requirements for Preparation of Detailed Design Documentation for Tourism Infrastructure Development at Bakuriani Recreation Park in Borjomi Municipality.

Overall scope and objectives

The objective of the assignment is to develop a concept and detailed design documentation for rehabilitation of Central Park in Bakuriani. This will support the development of sustainable tourism infrastructure of Bakuriani Recreational Park and improve social-economic conditions in the region. The determining scope for the assignment has to be referenced from Bakuriani recreational territory land use master plan and its definite permissive zoning accompanied by the rules on use of the territories and regulation of buildup, spatial-territorial information system (procured by the Ministry of Economy and Sustainable Development of Georgia).

Site location and description

Bakuriani is one of the most visited mountain and ski resorts in Georgia, famous for its climate and nature. Diverse possibilities for summer and winter activities supported tourism growth. The resort infrastructure is in poor condition and requires rapid improvements. Improved infrastructure will help to meet the needs of growing number of local and international visitors.

The project area is located in East Georgia in Borjomi municipality. The park covers 52,114 sq.m within altitudinal limits of 1668-1720 meters above the sea level. Park is located in the central part of Bakuriani. A skating rink and a stadium are located in the north part of the Park. From south and west, the territory is bordered by sparse forest containing pine trees, from east and north – private land plots. Accessing the park territory is possible from two sides. The territory of the park is registered as a municipal property with cadastral code: 64.30.02.725.

Certain sections of the park are filled with commercial and entertainment facilities. Southern part of the park is reserved for skiing and toboggan related activities for children. The park requires improvements in planning and quality, including fences, pathways and administrative facilities.

Project description and scope of services

Within the scope of this ToR, the Consultant is expected to develop at least three alternative concepts for the project design and justify the selection of the preferred proposed one, also in relation to the urban context surrounding the Park. After discussion with key stakeholders and final approval of the final concept design by MDF, conduct predesign studies and detailed designs, following the requirements listed under deliverables section of this ToR.

During the preparation of the alternative design concepts and detailed documentation, the Consultant is expected to describe how the Park functionally relate to the surrounding areas of the town, with particular focus on accesses, parking areas, connectivity with other recreational facilities in Bakuriani (during different seasons and type of activities). With regard to the Park, the Consultant will offer solutions for active and passive leisure with the optimal layout for the walking paths and the resting places, including for those with disabilities. The amount of the new paths should be minimized, preferably arranged using natural materials (small pebble, pieces of tree membrane etc.). Interventions in the existing terrain should be minimized to the extent possible. Scale of the landscape environment should be taken into consideration.

Proposed construction materials should be resistant to climatic conditions, should be energy efficient, meet the requirements of landscape architecture and have minimum maintenance costs.

While preparing the plan for zoning of different functional areas of the park, arrangement of spaces for parking, playgrounds, recreational and commercial areas should be considered. Functional planimetric maps should also be prepared.

It is expected that the design proposes technical solutions including but, not limited to the following:

- Landscaping of the park area and provision of additional greenery;
- Rehabilitation of fences and gates (On the park perimeter and the main road leading to park);
- Arrangement of security and ticket boots;
- Arrangement of parking areas (Number of spaces should be planned after conducting social-economic study and determined by estimating number of park visitors after reconstruction);
- Arrangement of public spaces and installation of associated equipment (playgrounds, pergolas, benches, climbing wall, lighting, trash bins etc.);
- Construction of small structures for shooting galleries;
- Arrangement of the commercial zones;
- Construction of a Café;
- Construction of the administrative building;
- Rehabilitation of the existing public toilets and additional new public toilets as necessary (including for people with disabilities);
- Arrangement of utilities (including drainage, sewerage, water supply, electricity and connection to the existing network);
- Rehabilitation of the existing ice skating rink and stadium, as justifiable considering operation and maintenance.

Preferred design methodology

The design methodology shall be in compliance with the holistic approach and the sustainable design practice applicable to the public park development. The park itself being different, green recreational spatial unit still has to be organic part of “urban tissue” of the Bakuriani settlement. The land cover within the park boundaries has to be as much “green” as more than 4/5th of the territory (the land surface “sealed” under the structures or any kind of pavement shall not exceed 20%). The methodological approach shall integrate following Sustainable Design Considerations:

For Site and Landscape:

- Disturbance to the landscape should be minimized. Park infrastructure must be planned I a way, that avoids the removal of the existing trees as much as possible. Already modified areas reused when possible;

- Vegetate with plants specific to the area. Locations suitable for planting of young coniferous trees of the same species composition as currently occurring in the park must be explored (approval from dendrologist required);
- Building sites must be located to take advantage of passive solar energy. Systems that channel, store, and absorb rainwater should be used and sites with erodible soil avoided. Sites must be chosen to shelter from climatic extremes and maximize natural cooling and heating;
- The facilities shouldn't stimulate undesirable development on adjacent land. If they do, solutions must be suggested to minimize impact;
- Utility lines should be buried at or near the access corridor;
- Narrow, curved access roads/trails are preferred to minimize cut-and-fill disturbance and create multipurpose access corridors. Same corridors can be used during construction. Paving access corridors and walkways prior to construction will also minimize site damage. Permeable surfaces from recycled materials can be used whenever possible;
- Exterior lighting should be limited to the minimum necessary for safety. Systems should limit spillover. Lighting must be energy efficient;
- Use erosion barriers and tree protectors during construction.

For Structures:

- Usage of renewable, indigenous building materials to the greatest extent possible is preferred;
- Usage of energy intensive, environmentally damaging, waste producing or hazardous materials should be avoided;
- Design should take advantage of natural heating and cooling and minimize number of mechanical climate control systems;
- Design should take advantage of natural lighting. Use the best available glazing technologies which minimize heat gain or loss;
- Usage of energy efficient technologies for lighting, heating, cooling, appliances and maximized insulation is preferred;
- Usage of proven energy production technologies such as photovoltaic, etc. is required;
- Usage of recycled and recyclable construction materials is preferred;
- Use of materials with low volatile organic compound (VOC) outgassing is preferred;
- Design of flexible spaces that facilitate multiple uses and future retrofitting is necessary;
- Spaces should be designed efficiently to minimize their allocated space and environmental impact;

Designer should take into account, that Bakuriani park has two high touristic seasons that needs to be reflected in the design (winter - summer). Specific areas and activities for seasonable entertainment (winter/summer) should be considered in the design. How the Park connect with its surrounding and other attraction points in the city should also be considered in the design to ensure efficient and safe movements and connections between the park and the rest of the city.

Design should also include designated areas for commercial vendors. Looking at already established traditions offered by local residents (**winter** - horse, sledge, cross-country skiing, skating ring; **summer** - horsing, biking, kids' play-ground, rolling ring) and local open marketplace.

Designer should obtain municipality's and operator's approval on maintenance costs of the rehabilitated park and new facilities to help them to foresee their budgetary needs after the rehabilitated park is handed over to them.

Deliverables

Under this assignment the consultant is expected to provide:

Phase A: DESIGN SERVICES

Stage 1: Stocktaking, Inception, Design Vision and Concepts

Prior to commencing the design and supervision services, the inception stage is expected to cover following (without being limited to):

- Review of overall consultancy objectives, tasks and the list of documents identified by the Client (through different sources), including cartography, plans, technical literature, and "project ideas", if available;
- Identification of any surveys maps and survey activities that are required for the design consultancy and planning for obtaining that information;
- Outlining of a work plan defining project sub-tasks under the tasks, methodology, timeline, dedicated resources; with human resources for international and local to be specified separately, and including planned field visits;
- Identification of relevant stakeholder lists (to be established in agreement with the Client), and outline an engagement strategy (including communication and information dissemination) during the various tasks;
- Revisions might be proposed to technical components and scope of works in the ToR (if deemed necessary), but by no means the consultant should change the TORs without prior agreement and clearance with MDF
- Conduction of environmental and social surveys, 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.
- Study of each project facility on site and carry out measurements. (Each site visit is desirable to be conducted together with the representative of the Municipal Development Fund. The Consultant shall communicate also with the beneficiaries of project facilities. Apart from the client, the Consultant shall take into account recommendations received from the Donor and Supervision Company.)
- Validation of the development vision (set for the park in above mentioned land use documentation) and preparation of at least three preliminary design concepts for the Bakuriani recreational park project for discussion with MDF and Municipality in order to finalize the selection of the most suitable concept for further discussion/validation with stakeholders and finalization for the design stage.
- Stakeholders Consultation Workshop to be organized in coordination with MDF, with participation of representatives of the concerned local and central authorities, as well as local civic, social and business organizations. The Workshop could use a SWOT analysis approach to assess possible alternatives and project briefs for the entire park area and each of its structural components (components shall be assessed concerning their detailed purpose, mutual relations and their ranking in terms of relative importance);
- Conduction of any predesign study identified during the inception;
- Quick assessment, to document the expected period of usage of the rink (e.g. days of below-zero temperature), safety standards for the "natural" ice rink and possibility to design multi-use recreational infrastructures that could extend the usage timeframe of this investment (e.g. roller skating in summer) to allow cost-recovery and offsetting of maintenance costs.
- Quick assessment, to document established traditional winter and summer activities and map designating areas for commercial vendors.

Deliverables:

Inception Report detailing the items provided in the list above, with a particular focus on the Work Plan and engagement strategy for stakeholders. The Inception Report should provide clear information on the Work Plan, parallel tasks and allocation of personnel/resources.

Based on a survey conducted on the site, environmental and social survey, Consultant shall provide the "Site Inspection Report" developed for the location with the following surveys and documentations:

- Consultative Stakeholders' Workshop Report and presentation of findings reflecting the discussion and results of the SWOT analysis, the visioning process, consultations and rationale for selection (vis a vis other options that were considered, but not selected);
- Cadastral documents;
- 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;
- A project concept – with specified project site parameters, structural, architectural and technical solutions. Initial tentative financial evaluation, including alternative proposals;
- Situation Plan;
- General Master Plan;
- Development Regulating Plan;
- Concept General Layout for the site development, reflecting locations of project facilities;
- Concept definitions of architectural appearance of project facilities, at least two alternative sketch options;
- Report on architectural and structural surveys of existing buildings and structures;
- Potential sites for disposing excess material (mud, soil, rocks) and construction waste, prepare brief description (including cadastral information) and maps of suggested sites; Carry out consultations with Borjomi Municipality Gamgeoba to identify sites;
- Location and distance to the nearest licensed borrow pit;
- Review all existing underground and surface communications within the SP site (water supply, sewage system, etc.);
- Land ownership and land utilization issues: a) Cadastral data on the project implementation site. b) Formally attested information whether the project impacts on privately owned, or leased land plots or not (temporal disturbance; loss of the part of the land plot or whole land plot by the owner; loss of the property being on the land plot; loss of income etc.);
- Brief socio-economic information about Bakuriani, number of visitors and tourists, existing winter and summer activities and etc.;
- Final Development Vision and Concept Report for the park being green recreational spatial unit within the Bakuriani settlement.

Following completion of exploration-survey works and upon submission of the respective reports, rehabilitation methods and concept, the employer will specify SP scope and parameters, and likely solutions, which will be followed by decision on commencement of the next stage works. After initial survey, the employer may come up with a decision to suspend works services on any of the components, based on the findings and recommendations

Stage 2: Preliminary Concept Design and Preliminary Cost Estimates

Based on the agreed-upon vision and concept, 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).

Deliverables:

- Topographic survey by applying of UTM - (International) System of Coordinates;
- Photos reflecting existing situation;
- Situation Plan and planimetric map showing how the park Design concept relates with pre-esisting structures and how it functionally links to the rest of the town, with particular focus on surrounding public spaces, accesses, parking spaces, relationship with other recreational areas in the city, etc. (Scale: 1: 1000);
- 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;
- Approximate cost estimations for each of the option/alternative interventions including costs of operation and maintenance;
- Preliminary cost estimates including operation and maintenance costs;
- 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.

Design documentation should be approved by related stakeholders and confirmed in writing by the Municipal Development Fund of Georgia, Local Municipality, the Park Operator (for the operating costs perspective) and Supervision Company.

Stage 3: Detailed design

Review of Preliminary Designs: In any case, the Consultant should consider conduction of additional field surveys, detailed investigations/evaluations, analysis and, collection of additional data for the detailed design if required; Bore hole investigations for soil required for foundation designs, etc.

Detailed Design: 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 detail design drawings

(projects) will be prepared on the basis of approval of selected preliminary designs and developed according to the sustainable design methodology.

Deliverables:

- 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;
- Feasibility Study and alternative Cost Estimate;
- Determination of load on engineering communication network for obtaining technical conditions from relevant institutions, as required;
- 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;

During the progress of construction works and even after expiration of the design documentation contract, in order to provide for adherence to the design documentation, the consultant shall take part in definition of design solutions and preparation-coordination of working documentations, bill of quantities and variation orders to the contract, as required.

Final Detailed Design documentation package must be approved by the related stakeholders and confirmed in writing by the MDF, Local Municipality, and the Supervision Company.

Specific Approvals: The Consultant shall prepare necessary documents and detailed drawings for Local Authority approvals and any other approvals required in the process. The required approvals shall be identified in the work plan at the inception stage by the Consultant.

Design Supervision: During the construction period, once a month or upon MDF's request, a consultant or his representative will visit and monitor the progress on site. Following the visit, the consultant will

prepare and submit a report to the Employer, which will cover the situational analysis on site, list any deviations observed or variations needed, supported by argumentation.

Reporting and Schedule

The Consultant will carry out the following main activities for design services: (133 days in total)

- Within **1-week** period carry out a rapid desk-review, including stocktaking, preparation of a work-plan and preparation of inception report and submit plans and reports to the employer;
- Within **3-week** period, after receiving employer's approval on plans and reports formulate a *design concept* incorporating all provisions of Bakuriani recreational territory land use master plan, its definite permissive zoning and the rules on use of the territories and regulation of buildup and submit Stage 1 documents to the employer. During this 3-week period, contractor is required to regularly update employer via email about ongoing tasks and their respective schedules;
- Within a **1-week** period after submission of the Stage 1 documentation, the employer will furnish the consultant with their remarks;
- Within **4-week** period after receiving remarks, contractor should present preliminary design and all the required documentation in Stage 2 and updated documents from Stage 1 (If required by employer's remarks). During this 4-week period, contractor is required to regularly update employer via email about key decisions and choices made for all the parts of design project;
- Within **2-week** period, following submission of Stage 2 documentation, employer will provide consultant their remarks;
- Within an **8-week** period following submission in writing or through email of notification regarding remarks and/or comments on documentation presented by the employer and/or the assignee of the employer under the contract at the previous stage, the consultant shall submit for approval to the employer the final version of the complete set of design documentation, which will incorporate all previous remarks – finalized working documentation for all parts of the design, with respective details, units and specifications, cost estimations (unit rate breakdown by resources and summarized unit rates), BoQs, technical specifications, technical reports, and works schedule for investment project, documentations to make them ready for bidding; During this 8 week period, contractor is required to regularly update employer via email about all the changes made according to previous remarks, design drafts for final documents should be submitted once a week for a review and updated according to feedback before submitting final documents.
- Finally, the consultant shall submit to the employer four printed copies of the detailed design documentation and bidding documents prepared in Georgian and English languages. The submitted materials shall be accompanied with their electronic versions (textual part in Word and Excel file form, and drawings in - AutoCAD and PDF format).
  The Municipal Development Fund of Georgia will make final approval of design and reports provided by the Consultant.

During the construction process consultant will carry out activities for supervision services. Expected duration of the design supervision services shall be specified following the completion of bidding and contract awarding procedures.

Additional Conditions

Employer's Contribution

The employer should grant access to all available materials, which may be required for the Consultant to perform their services.

Annex A

Consultant's Personnel for the Detailed Project of Tourism Infrastructure Development at Bakuriani Recreation Park Tentative Cost estimate (in USD) (including taxes)

N	Consultants	number	month	Input (Person* Month)
A.	**Key Experts**			
1	Team Leader	1	5	5
2	Urban Planner	1	5	5
3	Civil Engineer	1	3	3
4	Landscape Architect	1	5	5
	Subtotal 1	**4**		**18**
B.	**Non-Key Experts**			
1	Architect	1	5	5
2	Structural Engineer	1	4	4
3	Geologist	1	0.5	0.5
4	Surveyor	1	0.5	0.5
5	Civil Engineer	1	3	3
6	Electrical Engineer	1	1	1
8	Water supply and Sewage Engineer	1	1	1
9	Dendrologist	1	1	1
10	Economist	1	1	1
11	Cost Estimator	1	1	1
12	Environmental Specialist	1	1	1
	Subtotal 2	**11**		**19**
	Total 1+2	**15**		**37**

* Time will be determined by employer according to submitted "Work Schedules" with Stage 3 documentation. Generally supervision is required until all the works determined by final design and documentation are fully completed, quality control has passed and employer agrees to finalize the contract.

Annex B

Narrative Qualification Requirements for Key Experts

	Title	Specific experience (Years)	Area of Specialization, Qualification	Special Skills and Knowledge, but not limited to
1.	Team Leader	12	Experience in design and management of similar size and type project implementation; Minimum Master's degree in civil engineering with further advanced training; knowledge of international and local design and construction codes/regulations/standards	Overall responsibility for implementing the project and managing the team of designers Review and certify subcontracting parts of the works; 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. Review the procedures set up by the contractor, Knowledge of the local and international standards for construction/rehabilitation works on cultural heritage sites. In-depth overall knowledge in detailed design supervision for large, and medium sized civil works projects
2.	Architect	10	Minimum Master's degree in Architecture. At least 10 years of specific experience of working as Architect/Civil Architect. At least design of 2 similar projects;	Organizing coordinated activities of the working team Management of the design process of architectural objects Organize presentations with clients and stakeholders. Coordinating a team of architects; Preparation of monthly and quarterly reports.

3.	Civil Engineer	10	Civil Engineering – Design Management experience of implementation of similar size and type projects; Minimum Master's degree in civil engineering with further advanced training; At least 8 years of specific experience of working on similar position. Knowledge of international and local design and construction codes/regulations/standards; At least design of 2 similar projects;	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.
4.	Landscape Architect	10	Minimum Master's degree in Architecture. At least 10 years of specific experience of working as Landscape Architect. At least design of 2 similar projects;	Organizing coordinated activities of the working team Management of the design process of landscape architectural objects Organize presentations with clients and stakeholders. Preparation of monthly and quarterly reports.

Annex C

Payment schedule

Deliverables	**Number of Copies**		**Submission Date** since Contract Execution	Correlation Rate to Contract Price
	English	**Georgian**		
Survey works/ Concept Design	2	2	Within **4 weeks.**	20%
Draft Design	3	3	Within **6 weeks.**	30%
Detailed Design	2	2	Within **8 weeks.**	40%
Design Supervision	3	3	Within **1 week** after the site visit.	10%