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## Request for Proposal RfQ19/01923 Amendment No. 1

Ref. no. **RfQ19/01923**

Date: **18 June 2019**

Subject: **EU- CBM / Technical expertise of Chisinau Circus**

Dear Sir/Madam,

1. Due to the need to correct some tender requirements, entries under "Evaluation Criteria" section, are hereby amended to read as follows. **Changes are marked in RED within the document.**

|                     |   |
|---------------------|---|
| Evaluation Criteria | <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Technical responsiveness/Full compliance to requirements (according to Annex 1) and lowest price<sup>1</sup></li> <li><input checked="" type="checkbox"/> Minimum 3 (three) years of experience in delivering technical expertise services;</li> <li><input checked="" type="checkbox"/> Maximum delivery period not to exceed 4 calendar months upon signature of Contract;</li> <li><input checked="" type="checkbox"/> Warranty for a minimum period of 5 (five) years;</li> <li><input checked="" type="checkbox"/> Full acceptance of the Contract General Terms and Conditions;</li> <li><input checked="" type="checkbox"/> Submission of the CVs of the core team members demonstrating: <ul style="list-style-type: none"> <li>a) 1 (one) Task Manager/Architect <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> at least 5 years of experience in managing technical expertise projects</li> <li><input checked="" type="checkbox"/> at least 10 years experience in the field of buildings'</li> </ul> </li> </ul> </li> </ul> |
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<sup>1</sup> UNDP reserves the right not to award the contract to the lowest priced offer, if the second lowest price among the responsive offer is found to be significantly more superior, and the price is higher than the lowest priced compliant offer by not more than 10%, and the budget can sufficiently cover the price difference. The term "more superior" as used in this provision shall refer to offers that have exceeded the pre-determined requirements established in the specifications.

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|  | <p>reconstruction</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> at least 4 technical expertises of listed buildings*</li> <li><input checked="" type="checkbox"/> Fluency in Romanian (English for international staff)</li> <li><input checked="" type="checkbox"/> Valid accreditation certificate</li> </ul> <p>b) 2 (two) certified technical <b>experts</b> in the field of general construction works</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> at least 10 years of experience in the field of buildings' reconstruction</li> <li><input checked="" type="checkbox"/> at least 4 technical expertises of listed buildings*</li> <li><input checked="" type="checkbox"/> Fluency in Romanian (English for international staff)</li> <li><input checked="" type="checkbox"/> Valid accreditation certificate</li> </ul> <p>c) 2 (two) certified costs estimators in the field of general construction works</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> at least 10 years of experience in the field of costs estimations of buildings' reconstruction</li> <li><input checked="" type="checkbox"/> at least 4 cost estimates of listed buildings*</li> <li><input checked="" type="checkbox"/> Fluency in Romanian (English for international staff)</li> <li><input checked="" type="checkbox"/> Valid accreditation certificate</li> </ul> <p>d) 1 (one) certified geodesist or contract of intention with accredited company for geodesic works:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> at least 10 years of experience in the field of geodesic works</li> <li><input checked="" type="checkbox"/> at least 4 geodesic surveys of listed buildings*</li> <li><input checked="" type="checkbox"/> Fluency in Romanian (English for international staff)</li> <li><input checked="" type="checkbox"/> Valid accreditation certificate</li> </ul> <p>e) 1 (One) certified geotechnics or contract of intention with accredited company for geotechnics works.</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> at least 10 years of experience in the field of geotechnics works</li> <li><input checked="" type="checkbox"/> at least 4 geotechnics surveys of listed buildings*</li> <li><input checked="" type="checkbox"/> Fluency in Romanian (English for international staff)</li> <li><input checked="" type="checkbox"/> Valid accreditation certificate</li> </ul> <p>f) 1 (one) <b>certified</b> engineer with official habilitation in security management</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> at least 10 years of experience in the field of security management</li> </ul> |
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|  | <input checked="" type="checkbox"/> at least 4 <b>geotechnics surveys action plans</b> of listed buildings*<br><b>in security management</b><br><input checked="" type="checkbox"/> Fluency in Romanian (English for international staff)<br><input checked="" type="checkbox"/> Valid accreditation certificate<br><br><input checked="" type="checkbox"/> Contract of intention with a laboratory with a laboratory responsible for the sampling and testing of materials and joints will be required from the winning Offeror.<br><br>*) Additional supporting documents may be required. |
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2. Due to the need to correct some tender requirements, **Section J “Qualifications of the Successful Service Provider at Various Levels”** of Annex 1 Technical Specifications and Requirements, is hereby amended to read as follows. **Changes are marked in RED within the document.**

## Technical Specifications and Requirements

### A. Background

In 2019 the UNDP Moldova launched the fifth phase of the European Union Confidence Building Measures Programme (EU-CBM V), funded by the European Union and implemented by the UNDP Moldova. The overall goal of the Program is to increase confidence between both banks of the Nistru River by ensuring socio-economic development through involvement of local authorities, civil society organizations, private actors, and other community stakeholders.

The EU CBM programme is focused on 4 specific fields: promoting business development; support to community development and cross river platforms of cooperation; preserving cultural and historical heritage and assistance to media development and cooperation.

Culture is essential for the development of any society. Culture may have a strong dynamic and transformative force for social transformation on both banks. The activities under this component will provide support to the cultural sector with a focus on historical heritage with a view to investing in the country's future and facilitating development and conflict settlement.

Cultural and Historical heritage component focuses on conservation-restoration of historical monuments of national importance and on conservation-restoration of smaller scaled historical heritage endangered projects, which are considered to have a national interest for both banks (Confidence building measures dimension).

Two Flagship projects to undergo conservation-restoration under EU-CBM programme are: Bender Fortress located in Transnistrian region and Chisinau Circus located in capital of Moldova.

The Circus building from Chisinau was officially commissioned in 1981. The first performance in the Circus building was held on April 25, 1982. Project documentation for the respective building was developed by State Design Institute MOLDGIPROSTROI (currently the National Research and Design Institute "Urbanproiect"). The authors' team has been awarded the State Award for Architecture for carrying out the respective project.

The Circus building has a performance hall in the form of an amphitheater for 1900 seats, and the central arena is in the form of a circle with a diameter of 13 meters. The performance hall is surrounded by a semicircle lobby, which is decorated with encaustic wall paintings; the lobby floor is made of marble mosaic representing tumbling animals. The main façade is enriched with an obelisk representing a clown.

The Circus building complex from Chisinau is composed of 6 buildings, delimited among themselves through seismic and trampling joints:

1. Bloc A, the building with the main arena
2. Bloc B, gallery-type building for access from Bloc A to Bloc C
3. Bloc C, the building with the small arena.
4. Blocs D, E, F – buildings for administrative-housework purposes.

In 2004 the Circus building stopped its activity in order to undertake reparation and renovation works, but the given works were not finished, hence the building is not yet operational.

On May 30, 2014, as a result of current reparation works, the small arena of the Circus, bloc C, became operational again, having 300 seats and a diameter of 9 meters.

## **B. Objective of the assignment:**

The objective of this assignment is to identify a company to perform the screening of the technical conditions of the Circus buildings and to submit an expertise report regarding the possibility to further operate these premises.

Participation to this RFQ process is open to all registered architectural and/or engineering and/or architectural/engineering offices and/or bureaus and/or companies.

Bureaus/offices/companies entering into contract must have an indemnity insurance as per Clause 12 of the General Terms and Conditions for Contracts. Copy of the indemnity insurance must be presented at the contract signature.

To achieve the objective of this assignment, the appointed company will be responsible to carry out all the expertise-related works, to draft the geotechnical studies, to develop the topographic plans, to take and examine lab samples, to screen the welded joints, to determine the corrosion level, to determine the condition of the anticorrosive protection layer, to determine the bearing capacity of the resistance structure elements, etc.

As a result of the technical screening, the company will provide recommendations for reinforcing and preserving the buildings, which will be taken into account at the stage of developing the project documentation for renovation works.

Additionally, the company will inspect the architectural elements of esthetical nature and will provide recommendations for their reinforcement and renovation.

### **C. Key tasks and expected outputs:**

The elaboration of the technical expertise will include all the stages stipulated by the national legislation, specifically NCM A 09.03.2015 *Examination of the load bearing elements and the ground for foundation of the buildings and constructions*. These stages are: 1) the preparation of the examination; 2) preliminary examination (visual); detailed (instrumental) examination; 3) calculation of the actual structure.

At the preparation stage for the examination, the designated company will be responsible for collecting information about the object: the previous execution project; reports of previous geodetic studies; previous expertise reports; the technical passport of the building, photo-straightening of the facades, etc. These materials will be presented to UNDP in electronic format.

To carry out the required expertise, the designated company will perform the following tasks:

1. To develop the topographic plan of the land plot, surface 3,3ha. (The topographic plan will be endorsed and coordinated in line with the legislation in force)
- 5.1 Monitoring of ground displacement in the nearby of the Circus, using a multiple image sets of SAR interferometric data acquired by satellite platforms. Data should be collected for at least 10 years.
2. To develop geotechnical studies regarding the condition of the foundation plot (at least 3 samples of soil)
  - 2.1 Performing geotechnical drilling up to 20m depth
  - 2.2 Taking samples of foundation plot
  - 2.3 Perform of Standard Cone Penetration Test (SCPT)
  - 2.4 Establishing the share of groundwater at least 3 piezometer tests
  - 2.5 Lab testing for physical-mechanical characteristics of foundation plot samples.
  - 2.6 Testing the chemical composition of groundwater (upon need, if it represents a danger for the foundation plot, and establishing the origin of groundwater from this zone).
  - 2.7 Seismic analysis of soils.
  - 2.8 Developing a report regarding the conditions of the foundation plot in the construction zone.

- 2.9 Drafting recommendations for improving the geological conditions of the foundation plot, (drainage, reinforcement, etc. if needed).
3. To screen the technical condition of Bloc A (the building with the main arena of the Circus)
  - 3.1 Performing measurement works for the building
  - 3.2 Perform a 3D laser scan of the inside and outside of the Circus, minimum of 8 vertical cross sections and 10 horizontal cross sections
  - 3.3 Drafting the mapping plan for the building
  - 3.4 Screening the technical condition of the building's foundation, realizing a minimum of 4 excavations, 2 closes to columns and 2 closes to perimeter walls.
  - 3.5 Screening the technical condition of the building's resistance structure (reinforced concrete frames). At least 9 cylindrical samples (3 at ground floor, 3 at first floor, 3 at second floor) for columns will be extracted. At least 9 cylindrical samples (3 at ground floor, 3 at first floor, 3 at second floor) for beams will be extracted.
  - 3.6 Perform of 30 Sonic+Rebound tests for reinforced concrete elements.
  - 3.7 Screening the technical condition of the curb elements (partitions, linings, stained glass, etc.)
  - 3.8 Screening the technical condition of building's roof construction (dome). Screening the technical condition of the metal beams and their junctures, establishing the level of such elements' and junctures' corrosion. Realize a measurement of thickness reduction, at least 10 points on primary and at least 20 points on secondary beams for dome. . Visual inspections and suit tests on welds, through penetrating liquids or magnetoscopic method for at least 20 welds.
  - 3.9 Taking samples of construction materials used for constructing the building.
  - 3.10 Lab testing for physical-mechanical characteristics of the samples of construction materials.
  - 3.11 Performing non-destructive tests for the resistance structure elements (foundation, reinforced concrete frames, dome's metallic construction)
  - 3.12 Load tests – at least 2 on steps of the main arena, at least 2 on the slabs, at least 1 for the main stair.
  - 3.13 Dynamic environmental test for determination of the own frequencies of the building. This test has to be performed with tri-axial accelerometers.
  - 3.14 Brief description of the utility networks of the building, description of their situation and possibility of reuse it.
  - 3.15 Examining the possibility to change the destination of the Circus arena into a multi-

functional stage (demountable).

- 3.16 Developing a report regarding the technical condition of Bloc A, integrating in the report the results of lab tests and non-destructive tests.
- 3.17 Issuing a conclusion regarding the possibility to further operate the building.
- 3.18 Drafting recommendations on how to reinforce and eliminate the deficiencies identified during the screening.
- 4. To screen the technical condition of the architectural elements of Bloc A (the building in which the main arena of the Circus is located)
  - 4.1 Screening the technical condition of the obelisk placed on the main façade.
  - 4.2 Drafting recommendations for restoring and renovating the obelisk.
  - 4.3 Screening the technical condition of lobby floor made of marble mosaics (with thematic drawings).
  - 4.4 Drafting recommendations for preserving and restoring the thematic floor in the lobby.
  - 4.5 Screening the technical condition of encaustic wall paintings on the external walls of the amphitheater.
  - 4.6 Drafting recommendations for preserving and restoring the wall paintings.
  - 4.7 Screening the technical condition of ceramic compositions placed in the lobby of Bloc A.
  - 4.8 Drafting recommendations for restoring the ceramic compositions.
  - 4.9 Examining the noise environment for Circus arena.
  - 4.10 Drafting recommendations for restoring the phono-amplifying materials.
  - 4.11 Screening the technical condition of architectural elements of the façade on Bloc A.
  - 4.12 Drafting recommendations for restoring and/or replacing them.
  - 4.13 Developing a report with photo materials regarding the works carried out during the technical screening of architectural elements.
- 5. The calculation of the resistance structure of block A of the circus building by means of specialized software. FEM (Finite Element Modeling) or equivalent tests
  - 5.1 Elaboration of the calculation model of the resistance structure.
  - 5.2 Performing the calculation of the resistance structure to the static loads in accordance with the norms in force on the territory of RM.
  - 5.3 Performing the calculation of the structure of resistance to dynamic loads in accordance with the norms in force on the territory of RM.
- 6. Making the general estimation regarding the value of the investments necessary for the rehabilitation of block A of the circus in Chisinau.
  - 6.1 Developing general cost estimation for the following works:

- a) Architectural solutions
- b) Landscaping
- c) Technology
- d) Resistance
- e) Water and Sewerage Networks
- f) Heating and Ventilation Systems
- (g) Electricity Networks
- h) Fire Protection System
- i) Access Control system
- j) Low-voltage networks (including Internet, telephony, etc.)
- k) Other chapters that need to be considered.

6.2 Developing estimation of the maintenance costs of the building.

7. PRESENTATION: Presentation of Outputs

The Contractor will present all the Outputs in a PowerPoint presentation at the stakeholders' meeting which will be arranged by UNDP. The Outputs and presentation materials must be provided 5 days before the presentation by the Contractor to UNDP.

The Contractor will be responsible for taking notes of the main points of discussion during the presentation, submit for approval to UNDP within maximum 48 hours after the meeting and wait for UNDP's feedback. According to the provided feedback the Contractor should proceed with all the necessary modifications. This feedback/approval by UNDP will be provided within maximum TWO (2) calendar weeks. This period will be part of the execution work plan.

8. To provide assistance to designers' team when drafting the project documentation for renovating the buildings of the Circle.

#### **D. Regulatory Framework**

For the contract implementation, the selected company shall be guided by the normative acts in force in Moldova, specifically:

- 1) Law No. 721 of 02.02.1996 on the quality in construction;
- 2) Government Decision no. 936 of 16.08.2006 for the approval of the Regulation on technical expertise in construction;
- 3) NCM A 09.03.2015 Examination of load-bearing elements and foundation grounds of buildings and constructions;



- 4) To carry out topographical surveys, the Contractor will hold appropriately certified staff. If the company lacks such specialists, it will be responsible for contracting them.
- 5) In order to carry out the geotechnical studies, the company will subcontract accredited companies and specialists certified according to the rules in force;
- 6) For the material tests the Contractor will subcontract an accredited laboratory with personnel attesting to the sampling and testing of the respective materials;
- 7) Other normative acts in force on the territory of the Republic of Moldova.

#### **E. Deliverables**

Contractor is required to deliver the expected design services, in accordance with the following deliverable items and established schedules:

| <b>Item No.</b> | <b>Deliverables and Description of Services</b>  | <b>Expected Delivery Date</b>                                |
|-----------------|--|--|
| <b>1.</b>       | Topographic plan of the plot at a scale of 1:500, endorsed and coordinated according to the legislation in force.<br>a) Topographic plan to be submitted in hardcopy – 5 copies with original endorsement<br>b) Topographic plan to be submitted in dwg format on USB  | <i>within 1 month from the date of signing the contract</i>  |
| <b>2.</b>       | Report regarding the technical condition of the foundation plot in the zone where the buildings are located.<br>Annexes to the report:<br>a) Reports on drilling holes.<br>b) Reports on examining the physical-mechanic proprieties of the foundation plots<br>c) Report of composition of groundwater in the foundation plots' zone (if needed)<br>d) Recommendation for reinforcing the foundation plot.<br>Report to be submitted in hardcopy – 5 copies with original endorsement and electronic version on USB | <i>within 2 months from the date of signing the contract</i> |
| <b>3.</b>       | Report regarding the technical condition of the building Bloc A<br>Annexes to the report:<br>a) Reports on taking samples from the resistance structure.<br>b) Reports on examining the physical-mechanic proprieties of samples.  | <i>within 3 months from the date of signing the contract</i> |

| <b>Item No.</b> | <b>Deliverables and Description of Services</b>   | <b>Expected Delivery Date</b>                                |
|-----------------|---|--|
|                 | <p>c) Reports on non-destructive screening of construction elements.</p> <p>d) Conclusion regarding the possibility to further operate the building</p> <p>e) Recommendations for reinforcing and redressing the resistance structure</p> <p>Report to be submitted on hardcopy – 5 copies with original endorsement and electronic version on USB</p> <p>Building measurement plans – submitted in dwg format on USB</p> |  |
| <b>4.</b>       | <p>Report on technical conditions of the architectural elements of Bloc A.</p> <p>Report to be submitted on hardcopy – 5 copies with original endorsement and electronic version on USB</p>   | <i>within 3 months from the date of signing the contract</i> |
| <b>5.</b>       | <p>Report on the calculation of the resistance structure to the static and dynamic loads. Presentation of short videos on dynamic loads (up to maximum 3).</p>  | <i>Within 3 months from the date of signing the contract</i> |
| <b>6.</b>       | <p>General estimation regarding the value of the investments necessary for the rehabilitation of block A of the circus. General cost estimation for the all chapters of works included in the design documentation.</p> <p>The estimations to be submitted on hardcopy – 5 copies with original endorsement and electronic version on USB</p>   | <i>within 4 months from the date of signing the contract</i> |
| <b>7.</b>       | <p>Presentation of outputs, revision and update based on comments and acceptance by UNDP of the final papers.</p>   | <i>Within 4 months from the date of signing the contract</i> |
| <b>8.</b>       | <p>Consultation of the designing team after contracting the technical design services</p>   | <i>Within 8 months from the date of signing the contract</i> |

**NOTE: All the deliverables shall be presented in Romanian language.**

## **REQUIREMENTS TOWARDS PRESENTATION OF DELIVERABLES**

**Cadastral Information:**

An official cadastral map and the plot number of the site (including neighbouring plots) must be provided with the survey outputs.

The public access points to the plot/s (public road or path) must be indicated.

**Drawings must be submitted in:**

AutoCAD drawing file format. Included in the electronic deliverable should be the .ctb file (which defines the plot style of the drawings).

Pdf/jpg format in scale (including north arrow). Each drawing should be on a separate pdf/jpg. Pdf/jpgs should be created directly from Autocad by choosing "print to pdf/jpg". They shouldn't be scanned from hard-copies to PDF/JPG format in scale.

**Hard copies** of the drawings in scale (including north arrow).

A list of all the drawings submitted, their scale, and what they present (a type of table of contents of drawings).

Minimum drawing requirements are: (i) plans for every floor level including roof, (ii) ceiling plan, (iii) number of sections in order to document all the interior elevations, and (iv) elevations of every facade of the building/s with measurements and descriptions of the materials including facades and details of perimeter walls and other elements in the limits of the plot, v) a plan documenting the different types of floors (material description etc.). Special elements should also be documented in detail in a larger design scale. All drawings should include measurements and description of building materials.

**Digitization of the monument/complex** (TO BE FURTHER DEFINED) (3D Scanning and modelling, Photogrammetry or Theodolite etc.)

**Photographic Documentation** must be submitted in:

TIFF or JPG format but each photo shouldn't be a heavy document. Photos should be organized in subfolders according to the locations taken.

The plan of the building with the points that each picture has been taken in AutoCAD drawing file format (including .ctb file), pdf/jpg format in scale (including north arrow) and hard copy.

The expertize report will be presented in accordance with Chapter 18 of the NCM A 09.03.2015 *Examination of load bearing construction and ground for foundation of buildings and constructions.*

## **F. General organizational information/requirements**

*Buildings:*

The following special regional climate conditions and technical characteristics shall be taken into account while developing the expertise project buildings and constructions:

Climate rayon - III B;

Snow loading - 500 Па/м<sup>2</sup>;

Wind loading - 350 Па/м<sup>2</sup>;

Seismicity level - 7-8 grades;

Average outside temperature - 17°C;

Heating season duration - 166 days;

Average outside temperature during winter season - +0,6°C;

### **G. Institutional Arrangements**

The Contractor will be awarded a contract with UNDP for the delivery of services applied for, and will work under the guidance of the EU-CBM V Project Officers/Engineers and supervised by EU-CBM V Community Infrastructure Project Manager. The Contractor will be responsible for establishing and maintaining of good working relationships with relevant authorities, as well as for arranging all necessary transportation and logistics arrangements.

Selected company will be responsible for Safety measures (for people, structures and special elements) before initiating and implementing any type of work: scaffolding, nets, signage etc.

### **H. Financial Arrangements**

Payments will be made based on unit prices provided in the financial proposal multiplied with the quantities for services required and accepted by UNDP. The contract will be signed in US\$ currency (payments to local companies will be effected in MDL based on UN operational rate of exchange on the day of payment, please, refer to <https://treasury.un.org/operationalrates/default.php> ). Still, the Bidders are required to consider any eventual currency fluctuations while developing their Financial Proposal, given that currency fluctuation is not subject to any changes in the unit rates and total contract price.

Participants must take into account all costs associated with the activities related to the outputs. Pricing and payments will be against the accepted outputs and not the costs associated with these outputs. Lack of understanding and knowledge will not be considered as waiving the objectives. The Contractor will bear the responsibility for its own logistics and shall arrange their travel to and from the site, to and from the meetings/presentations.

### **I. Duration of Work**

- a) The estimated duration of works is maximum 120 calendar days. The expected time of commencement of contract is July 2019;

- b) UNDP will require maximum of 14 (fourteen) days (depending on the implementation stage) to review the deliverables, provide comments, approve or certify acceptance of deliverables;
- c) The timeline of works must be in the form of an Excel spreadsheet/ chart stating the various work items (making reference to the technical specifications and the bill of quantities) and the duration of each stage in weeks/ months. This chart shall stipulate clearly the overall and specific duration of the services.

#### **J. Qualifications of the Successful Service Provider at Various Levels**

The offers will be evaluated based on their compliance with the general requirements specified below:

- Legal entity with minimum 5 years proven experience in the area of constructions or technical design;
  - Proven technical and human resources for successful implementation of the assignment. Minimal presence of the implementation team consisting of:
    - g) 1 (one) Task Manager/Architect
    - h) 2 (two) certified technical ~~supervisors~~ experts in the field of general construction works
    - i) 2 (two) certified costs estimators in the field of general construction works
    - j) 1 (one) certified geodesist or contract of intention with accredited company for geodesic works.
    - k) 1 (One) certified geotechnics or contract of intention with accredited company for geotechnics works.
    - l) 1 (one) ~~certified~~ engineer with official ability in security management
  - Contract of intention with a laboratory with a laboratory responsible for the sampling and testing of materials and joints is compulsory for the selected contractor.
3. All other terms and conditions of the solicitation document, except as amended herein, shall remain unchanged and shall continue in full force and effect.