

## Technical specifications and requirements

### Development of the detailed execution design: Revitalization of Cahul municipality Urban Center

#### A. Context.

The „EU4Moldova: focal regions” Programme supports strengthening the economic, territorial and social cohesion in the Republic of Moldova, by facilitating inclusive and sustainable local social-economic growth and improvement of the living standards of the citizens in the 2 focal regions: Ungheni and Cahul municipalities and adjacent settlements. The Programme will support the 2 regions by: increasing governance efficiency – improving the quality of services and necessary infrastructure; giving incentives to the private sector – increase of investments, improvement of local economy and creation of jobs; encouraging participative democracy – involvement of the citizens in the democratic governance processes and strengthening their capacities to claim their rights.

The programme sets the following objectives: (i) Strengthening the transparency and accountability of the local public authorities, as well as the participation of citizens in the local governance processes in the focal regions; (ii) Facilitating the access of the citizens from the focal regions to public services and utilities of an increased quality and performance; (iii) Creation of jobs in the focal regions and increasing territorial competitiveness to attract investments and entrepreneurship; (iv) Taking an intelligent development approach based on economic specialization, creation of clusters and value chains.

As a result of programme implementation, the institutional capacity of the local public authorities will increase, it will be strengthened to support the implementation of the integrated, environmentally friendly local development and social-economic growth strategy. The involvement of the stakeholders (for example: CSOs, private sector, etc.) in the planning and monitoring of the social-economic development strategy will become even broader. The citizens will benefit from the increased quality, availability and performance of public service rendering and local public utilities, including those meant for women. Favorable conditions will be created to attract investments, create jobs and give incentives to the local entrepreneurship, including social entrepreneurship. The economic performance in the focal regions will also increase as a result of developing clusters or specialized areas, according to the intelligent approach based on economic specialization.

The citizens and communities of Ungheni and Cahul regions, the local public authorities and civil society organizations will be the final beneficiaries of this programme.

## **B. Contract objective.**

The general objective of the contract consists in performing professional works of development, endorsement and approval of the "Revitalization of Cahul municipality Urban Center" execution design, with focus on the development of the full project documentation and cost estimation, as well as on the development of the tender/construction documentation necessary for the implementation of this project. The design works shall be done in 2 stages:

Stage 1- Development and approval of the conceptual design with the participation of the Beneficiary, Investor, chief architect of Cahul municipality. Composition of the draft design:

1.General Plan, Sc 1:500

2.Dendrological solutions

Stage 2 – Development of the Execution design, which shall contain all the compartments provided in the NCM A. 07.02-2012 „Procedure of development, endorsement, approval and framework content of the design documentation for constructions. Main requirements and provisions” normative document. The design for the Revitalization of Cahul municipality Urban Center shall contain the following compartments:

- 1.- General plan
- 2.- Organization of construction works;
- 3.- General explanatory memo;
- 4.- Architectural-constructive solutions;
- 5.- Technical equipment and networks;
6. - Environment protection;
- 7.- Estimate documentation and Bills of quantities;
- 8.- Energy efficiency of the design solutions;
- 9.- Measures to ensure fire safety;
- 10.- Basic requirements for operation.

The documentation of the execution design shall stipulate the complex of works for the Revitalization of Cahul municipality Urban Center, namely:

- **Victoriei Boulevard, sector between Ioan Voda cel Cumplit Street and Republicii Boulevard:**

1. Organisation of one-way car traffic
2. Demolition of the existing pavement and paving the sidewalks with concrete slabs "grey/black brick 60mm thick".
3. Creation of a cycle path on the right-hand side of the road (direction Central Park - Culture Palace).

4. Boundaries subject to revitalization include areas up to existing fences/fencing. Mihai Eminescu Street is included in the design task in the sectors 31 August 1989 Street - Bogdan Petriceico Haşdeu Street. Fiodor Seliverstov Street is included in the design task in the sectors 31 August 1989 Street - Bogdan Petriceico Haşdeu Street.

5. The area of the "Horeho Square", for watching concerts, is to be equipped with urban furniture incorporating green spaces, creating an ensemble with accentuation of the atmosphere of play and joy by design.

6. The squares in this area are to be redesigned/conceived as public areas/spaces that stimulate urban activity. These public spaces will also highlight the new LOGO of the Cahul region and the slogan "WHERE YOUR HEART BEATS".

**- Victoriei Boulevard, sector between Republicii Boulevard - Vasile Stroiescu Street / Nucilor Street**

1. Demolition of the existing pavement/asphalt of the sidewalks. The pavements will be paved with concrete slabs for sidewalks type "grey/black brick 60mm thick", asphalt concrete bicycle path and green spaces on Victoriei Boulevard in the segment between Republicii Boulevard - Vasile Stroiescu Street / Nucilor Street. Designing spaces that create and enable life between buildings;

2. Organization of recreational spaces with the installation of street furniture, playgrounds for children;

**- Repairing the access paths to the "Nufărul Alb" sanatorium, including the sidewalks and the arrangement of the bicycle path;**

**- Reconstruction of alleys, parking places and green area on the territory adjacent to the Palace of Culture "Nicolae BOTGROS":**

1. Creation of a lively, colourful public space that would combine a new playground, playground, seating platforms, amphitheatre;

2. Ideas for the organization of weekend markets/exhibitions of folk craftsmen/traditional products of the region. Delineation of the area for the installation of wooden huts for the marketing of traditional products of the region.

**- Solutions for lighting the area adjacent to the "Nicolae BOTGROS" Palace of Culture;**

**- Solutions for the directed irrigation of the green area adjacent to the Palace of Culture "Nicolae BOTGROS";**

**- Reconstruction of the havuz in the square of the Palace of Culture "Nicolae BOTGROS";**

**- Solutions for the construction of 2 huts in the Independence Square area (existing project);**

**- Solutions for the application of small architectural forms: public transport stops, benches, litter bins, etc. in the area of the Urban Centre on Victoriei Boulevard of the municipality. Cahul.**

The design services shall identify and offer the best opportunities/options for the use, operation and sustainable functioning of the Urban Center area, by proposing modern, sustainable and environmentally friendly material, energetically efficient equipment and technologies, according to the national and international standards in the given area.

### **C. Requirements on the content of the design documentation.**

The content of the design documentation will be established in accordance with the national norms in constructions: NCM A.07.02-2012 „Procedure of development, endorsement, approval and framework content of the design documentation for constructions. Main requirements and provisions”.

The selected contractor shall render services for the development of a clear and complete design documentation, including, but not limited to the following:

#### **1. General plan:**

The compartment should contain:

- a) In the descriptive part – a brief characteristic of the area, solutions and indicators of the General Plan, with the inclusion of territorial zoning, main solutions for systematization, arrangement and technical preparation of the territory to ensure the access of people with disabilities;
- b) In the drawn parts – plans of the routes with longitudinal and transversal profiles, scheme of the General Plan stating the existing buildings and constructions and those that are designed, objectives of environmental protection, arrangement and creation of green areas on the territory, basic solutions of locating technical municipal networks on the field and transport communications (centralizing plan), planimetric benchmarks of the territory.

#### **2. Organization of construction works:**

The composition, volume and content of the design documentation of the compartment shall be established in accordance with the provisions of the existing national normative works in constructions, taking into consideration the conditions and requirements stated in the technical design theme.

#### **3. General explanatory memo:**

The compartment should contain:

- a) General data for the design;
- b) Short description of the area of location;
- c) Constructive solutions and their argumentation;
- d) Safety and organization of the road traffic;
- e) Conditions of activity of the people with reduced mobility;
- f) Environmental protection;
- g) Social-economic impact;
- h) Conditions of operation and maintenance;
- i) Technical norms and reference documentation.

#### **4. Architectural – constructive solutions:**

The compartment should contain:

- a) Data on the technical, geological prospecting, hydrogeological conditions (including information on the seismicity of the land);
- b) Basic solutions and indicators on the general plan, works for technical preparation of the territory, safety against landslides, territorial arrangement;
- c) Substantiation of architectural-urbanistic solutions, their conformity with architectural intentions, functional destination depending on the urbanistic requirements;
- d) Solutions for the protection of the architectural, historical and cultural monuments;
- e) Provisions for the conformity of the planimetric, volumetric and constructive solutions with the technical requirements and conditions established by the Beneficiary;
- f) Solutions for the protection of the construction elements against corrosion;
- g) Data on ensuring the comfort for the municipality inhabitants;
- h) Measures of seismic protection and protection against landslides;

#### **5. Technical equipment and networks (for the Palace of Culture area):**

The compartment should contain the sub-compartments:

- a) Electrical power supply systems and organization of exterior lighting;
- b) Water supply systems;
- c) Water evacuation systems;
- d) Communication networks.

#### **6. Environment protection:**

The compartment shall be development in accordance with the requirements of the state standards, as well as with the normative documents approved within the central specialized body of the administration in the sphere of environment protection.

#### **7. Estimate documentation and Bills of quantities:**

The compartment should contain the estimate documentation prepared in accordance with the provisions stipulated in NCM L 01.01-2012 „Rules for the determination of the value of construction objects” and CP L 01.01 – 2012 „Instructions on the preparation of estimate for construction and assembly works using the resource method”. The estimate documentation should mandatorily contain the full list for all works, with an adequate description of each item. The quantities for all works shall be based on real calculations, not on estimations. All the bills of quantities and estimations shall be presented in the format of Calculation sheets (Form no. 1, Form no. 3, Form no. 5 and Form no. 7). The cost estimations should take into consideration the current cost of the labor force, the current costs for the necessary materials and the costs of operation of machines and mechanisms, on the basis of the current prices available on the local market, which shall not be below the minimum provided by the national legislation.

## **8. Measures to ensure fire safety:**

The compartment should contain:

- a) measures to prevent fire;
- b) protection and safety of people in case of fire;
- c) fire safety of material assets.

## **9. Basic requirements on operation:**

The compartment shall be development in accordance with the requirements stated in the execution design.

The full set of execution design documentation shall be transmitted to the investor in 4 copies, including 1 copy in electronic form and 3 copies on paper.

**Basic requirements towards drawings:** the full and detailed construction drawings (graphic form) for all the works, with enough details to organize the tender, for contractual and construction purposes. All drawings shall be presented in electronic form (PDF) and on paper, accordingly. All drawings presenting the adopted technical solutions (technical drawings, schemes, plans and other documents in graphic form) should be clear, correct and precise. The symbols and abbreviation shall be defined in the legend.

**Requirements towards technical specifications:** full and current technical specifications, in accordance with the best current practices. The general and specific technical specifications for all materials, devices and equipment shall be prepared on the basis of nationally and internationally accepted standards, which shall be enough for the procurement, installation and construction works.

**Important: The documents, drawings and specification shall be detailed enough to facilitate the initiation of works without the need of instructions on site, selections of materials, assemblages of constructions, locations or localizations of elements or characteristics.**

The designs shall be in conformity with the provisions of the Law of RM 721 of 02.02.1996 (as amended) on the quality in constructions, with the norms and regulations, state standards and specifications in the sphere of constructions, local regulations in constructions, and shall ensure:

1. Resistance and stability of the construction;
2. Safety in operation;
3. Fire safety;
4. Hygiene, human health, restoration and protection of environment;
5. Thermal, hydro-insulation, and energy savings;
6. Protection against noise;

#### **D. Key tasks and expected results:**

During contract execution, the Contractor shall be responsible for the performance of all the activities necessary for the delivery of full execution designs and tender documents for “Revitalization of Cahul municipality Urban Center”, including development of the working plan and coordination of such plan with the Beneficiary and Investor.

The engineers on behalf of the EU4Moldova: Focal regions Programme shall assist the Contractor regarding the arrangement and coordination of field visits, together with the local public authorities and public institutions responsible for project implementation.

The Contractor shall coordinate in a corresponding way the design and engineering process with the local planning authorities, community representatives and EU4Moldova: Focal regions Programme. The Contractor shall obtain the design endorsement and expert review from all the relevant authorities.

All the detailed design documentation shall be subject to mandatory verification by the State Service for Verification and Expert Review of Designs and Constructions or by independent project verifiers authorized in these fields. In case of need, the design documentation shall be subject to an additional review by experts in this field.

The design company undertakes to make the necessary amendments and technical adjustments to the design documentation, arising in the process of verification or construction, such amendments and adjustments shall be done within 5 business days from the receipt of the official request from the engineer of EU4Moldova: Focal regions Programme.

When the construction and assemblage works are completed, the Contractor shall participate in the activities of the Final Acceptance Committee, shall issue an endorsement certifying the conformity of the works with the provisions of the execution design.

#### **E. Terms of development of the design documentation:**

The Contractor shall perform all the investigation and to present the full documentation of the execution design, including all written parts and drawings, technical specification and bills of quantities verified according to the procedure provided in the normative documents in constructions, including the documentation for tender launching in maximum 210 calendar days from signing the contract.

#### **F. Deliverables:**

The Contractor shall present the “Revitalization of Cahul municipality Urban Center” design documentation in accordance with the following deliverables and established schedule:

**F1. Location: EU4Moldova: Focal regions Programme, 104 Şciusev street, Chisinau municipality**

Item no.	Service description/specification	Date of completion
1	<b>Stage 0</b> - Preliminary investigation, which involves the delimitation of the boundaries of the areas subject to revitalisation, topo-geodetic survey, technical examination of the existing road system.	30 calendar days from the date of signature of the contract
2	<p><b>Stage 1</b>- Development and approval of the project outline, which involves the development and approval of the Concept Note and the project outline. The project outline will include:</p> <ul style="list-style-type: none"> <li>- General plan, scale 1:500;</li> <li>- Dendrological solutions;</li> <li>- Street furniture design solutions;</li> <li>- Certificate of Town Planning for the design;</li> <li>- Opinions of local government and state bodies for supervision.</li> </ul> <p>The representatives of the Beneficiary, Investor, representatives of the Architecture and Construction Service of Cahul Municipality, Cahul Municipal Council shall participate in the approval of the conceptual design.</p> <p><b>Stage 2</b>- Development of the Execution design, which shall contain all the compartments provided in the NCM A. 07.02-2012 „Procedure of development, endorsement, approval and framework content of the design documentation for constructions” normative document.</p>	<p>20 calendar days from the date of contract signing</p> <p>160 calendar days from the date of contract signing</p>
	<b>Stage 2 shall contain the following deliverables</b>	
3.	General plan. Results of measurements in the field. Survey plans.	30 calendar days from the date of contract signing
4.	Explanatory memo.	120 calendar days from the date of contract signing
5.	Execution drawings of the architectural-urbanistic solutions (SAC, IA)	120 calendar days from the date of contract signing
6.	Car roads	120 calendar days from the date of contract signing
7.	Dendrological solutions	120 calendar days from the date of contract signing
8.	Execution drawings of the construction elements (C, PAC, PACT)	140 calendar days from the date of contract signing
9.	Execution drawings of the technological solutions, automation	140 calendar days from the date of contract signing



<b>10.</b>	Technical installations, networks and systems, equipment. Execution drawings of the networks and systems.	140 calendar days from the date of contract signing
<b>11.</b>	Design of construction works organization (OLC)	160 calendar days from the date of contract signing
<b>12.</b>	Environment protection	160 calendar days from the date of contract signing
<b>13.</b>	Measures to ensure fire protection	160 calendar days from the date of contract signing
<b>14.</b>	Basic requirements on operation	160 calendar days from the date of contract signing
<b>15.</b>	Estimate documentation, including bill of quantities filled in for the working items, with detailed description of each item (F 7,F3,F5,F1). All the documentation shall be transmitted to the Investor in 3 copies on paper and one copy in electronic form.	180 calendar days from the date of contract signing
<b>16.</b>	Verification of the designs by authorized/licenses experts;	20 calendar days from the date of completing the full set of written items and drawings
<b>17.</b>	Supervision from the design author during the construction period;	Construction period

#### **G. General organization information/requirements**

The elaboration of the project documentation is initiated based on the Conceptual Note and the existing urban planning documentation.

The endorsements for connections/Technical conditions for the connection of the newly designed infrastructure to the existing utilities shall be obtained from the corresponding institution by Cahul municipality administration at the initiative of the contractors.

The following special regional climate conditions and technical characteristics shall be taking into consideration during the design works:

Climatic zone	III B
Humidity zone	3 (dry)
Snow load	0.5kPa
Wind pressure	0.36kPa
Seismicity degree	8 degrees.

Data on soil structure – in accordance with the existing geotechnical prospectings.

Developed by: Vitalie VIERU, Programme engineer/Community infrastructure