

## Draft II, 4.11.2020sa

Project:

Planning and Construction of a new Lebanese Red Cross Central Blood Bank, Beirut

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## Terms of Reference

**Feasibility study for a new Central Blood Bank**  
2637 & 2646 رقم العقار

Date: .....

Signature .....

## A. General Condition for the planning work

### Background

With a population of an estimated 6 million persons, Lebanon requires between 100,000 - 150,000 blood units per year.

In Lebanon, the blood supply is highly fragmented and relies on the service provided by over 100 private and public hospitals. There is no national blood bank in the country with available units in stock to cover the needs; rather needs are covered by family replacement donations and the system for collection of blood donations is to a large extent a reactive one, where the families of patients are asked by hospitals to seek and secure the required blood products

The Lebanese Red Cross started blood transfusion services in 1964 with the opening of the first blood bank in Beirut. Today, LRC has 13 transfusion centres and covers more than 20 percent of the estimated national blood needs (39,000+ blood products in 2019).

In 2015, with the support of the Swiss Red Cross, the Lebanese Red Cross initiated a major reform and modernization project to improve the safety and availability of blood products. In 2017, the Lebanese Red Cross partnered with “Ecole Supérieure des Affaires” to organize a first policy dialogue with all relevant stakeholders including the Ministry of Public Health, on the future of blood transfusion in Lebanon.

MOPH recognizes today that Lebanese Red Cross is the most realistic, logical and cost-effective option to drive a quality and standardization process given its experience, current infrastructure as well as geographical presence and safer access across the country. The Lebanese Red Cross Blood Transfusion Services are the only standalone blood transfusion services centres ready to receive voluntary donors to serve patients and hospitals across Lebanon.

Today LRC BTS perform collection testing preparation, storage and distribution of blood in all its centers. A study done by a consultancy company in 2019 showed clearly that LRC should centralize its testing, processing and storage activities in one center which will be the central blood bank of LRC BTS.

Accordingly, Lebanese Red Cross Blood Transfusion Services core rationale of this project is to realize the design plan and feasibility study of a One Central Blood Bank that will:

- Receive all the collected whole blood units and samples from the 13 Blood Transfusion Centers and blood drives
- Test the samples received from the centers
- Prepare blood components from whole blood units received
- Store blood products in temperature monitored areas
- Distribute blood products to hospitals

### Program

The offer should contain the necessary planning work needed for the feasibility study of the new blood bank including access and connections to public services (e.g. fresh water, waste water, electricity).

The base for the feasibility study of the new blood bank project is the document “**Design Guidelines Centra Blood Bank**” from the 6. February 2020 including all in the document mentioned guidelines and regulations.

The given surfaces and volumes in the schedule of spaces must be achieved, it is considered as the minimum. If due to architectural and or functional reasons rooms must be reduced or enlarged, the planner is free to do so, however must mention this in the explanatory report. Due to the topography of the property, it will be essential to distribute the various uses over three floors in the future building. The exact distribution and relations of the departments and uses will be subject of a workshop with the planer and the representatives of the Lebanese Red Cross.

### **Architectural aspects**

The new blood bank building should be designed and constructed as a *simple contemporary structure*. Design emphasis should be placed on the functionality, expandability and workflow of the building, this counts for the for both users frequent building visitors (i.e. employees) and occasional visitors (i.e. patients, donors etc.).

Special consideration should be given to the building's climate adaptation (for example, ceiling heights and natural ventilation, window size and placement, solar shading, etc.).

### **Structural aspects**

The new structure will be a massive three floor structure and one ground floor which will be accessible from one side. The structure and the materials to be used shall be fully harmonized with local building standards and codes. Local construction codes and standards apply to the project planning. However special attention has to be given to earthquake resilience, which may exceed local standards if necessary. The building must fulfil the valid construction codes regarding earthquake safety.

### **Ecological aspects of the building**

The SRC places emphasis on environmentally friendly construction techniques and materials. By Swiss Red Cross standards (SRC), any material containing asbestos or formaldehyde is banned from construction sites. Any possibility to include ecological resources should be carefully reviewed. Namely the following elements should be integrated into the planning:

- Photovoltaics for electricity production
- Solar panels for hot water production
- Proper insulation for climatized zones
- Appropriate reuse of rainwater

### **Accessible & Barrier Free Design**

The access to the building and the building itself must be fully functional for all handicap people. This includes all floors and thresholds, all sanitation facilities, working areas, etc. If necessary, please refer to international or American building codes on accessible and barrier free design.

### **Fire protection**

Building fire safety must follow all regulations during and post construction. The building must have proper escape facilities from each level directly to the outside (internal or external).

If necessary, please refer to international building codes on fire safety plans.

### **Flexibility and future adaptations**

In order to plan and build a structure which serves the area for at least the next 50 years, changes in the layout and size must be possible. This condition asks for high flexibility in the selection of the structural system. Changes in the layout and the uses must be possible with minimal intervention to the structural elements (i.e. load bearing walls).

Also, vertical and possibly horizontal extensions should be foreseen while planning. Any necessary measures for this future opportunity must be taken into consideration during the early planning phases.

## B. Planning structure

We ask the architect to specify his financial offer according to the given project structure.

- **Feasibility study**
- **Optional works**

Each step stands individually and needs to be completed in entirety before proceeding with the offer of the next step. The architect should also specify the needed working days for each step in his offer.

The LRC reserves the right to stop the project after each step without the obligation of paying for any losses due to the cancellation of the project. The steps must at least include the following:

### **Feasibility study on the proposed Two sites**

- Kickoff workshops with the client in order to understand the needs and functioning of a blood bank. (2 days for this must be calculated in the financial offer)
- Analyzing the intention and needs for the blood bank, provided through the workshops and the documents of the LRC
- Analyzing the site potential with the given program and intentions of the LRC and respecting the local codes and regulations of the site
- Proposal of one or several design options with sketches in scale 1:200/1:100 and possible volume studies
- Present and discuss the first findings with the representatives of the Red Cross
- Integrate the comments and recommendations of the client in the project
- Present the reviewed Pre-Project to the client and finalize it
- Prepare and present a separate table including all necessary calculations of surfaces and volumes
- Pre-discussion with Building and Development Department Beirut / Baabda Municipality
- Establish an explanatory report to the plans.

### **Optional works**

- Establishing a cost estimate (accuracy +/- 15%)
- Produce perspectives and volumetric renderings (3 pc. A3)

## C. Timeline

The following timeline for the implementation of the Feasibility study is foreseen.

- 1- Selection process of the Planner  
⇒ November-December
- 2- Kickoff workshop with the planner and representatives of the Red Cross/Blood Bank  
⇒ End of December
- 3- Presentation of the first draft project  
⇒ mid/end of January
- 4- Feedback to the planner by the Red Cross  
⇒ mid/end of February
- 5- Presentation of the reviewed project  
⇒ March 2021

- 6- Cost estimate
  - ⇒ End of March
  
- 7- Final project document
  - ⇒ end of March 2021

## D. Deliveries with the Offer

The offer should be sent in a written (on Paper) form and at least include the following documents.

Financial quotation for the mentioned planner work structured to the following structure.

- Feasibility study
- Optional works
- Extra fees and extra expenses

Two Reference projects of similar complexity of the planner's office.

- Project of similar complexity and volume including Name and Reference persons on a Format A3, (horizontal).

Personal experiences of the planner in charge

- (Diploma, Experiences, Projects implemented in Lebanon)

### Evaluation scheme:

The documents will be analyzed and rated according to the schedule below to select the best offer overall.

<b>Price</b> , financial quotation	50 %
<b>2 Reference projects</b> of similar complexity (each 20 %) of the Planners office	40%
<b>Personal experiences</b> of the planner in charge (Education, Projects implemented etc.)	10%

### Planning and Implementation phase

The planning and implementation phase will be subject of a tender again, however; the planner of phase one will have a substantial advantage for being mandated for this part.

### Reservations

The present tender process is not under the public law therefore the Lebanese Red Cross reserves the right to select according to its own criteria. There will be no possibility of a juristic contestability of the selection process.

## E. Questions about the Process

Any question in related to the tender can be send latest by (.....) in a written form to the following address. After this date no more questions will be answered. The Answers will be sent to each bidder.

### Annex:

- Site plan
- Design Guidelines Centra Blood Bank