







**Figure 3** (a) Floor plan of the second level and (b) floor plan of the third level of HemoCE blood center.

For the top of the building green roofs were created to contribute for the reduction of outdoor air temperature and heat load transmission to the environment. In some sections these green roofs became gardens with access by employees. These gardens contribute to the humanization concept proposed in this paper, in addition to promoting harmony and wellbeing. Simple modular elements are proposed for the composition of green cover. Such elements are now easily found in the market and have easy implementation and maintenance.

#### Annex Building

For the annex building proposed the same concepts of HemoCE main building were looked; humanization, sustainability, and use of local climatic aspects. The internal spaces were intended to house some activities removed from the existing building; areas such as housing; training rooms; library, etc.. Moreover, the new block houses a museum of HemoCE and areas that can be used for meetings and multipurposes (Figure 4).



**Figure 4** (a) Floor plan of ground level, (b) Floor plan of the first level, (c) floor plan of the second level, and (d) annex building facade.

#### INFERENCES AND CONCLUSION

The policy of humanization of public health units, coupled with the need to reduce the action of infectious agents in health care facilities, and the impact these environments imposes its users and the environment, are requesting more and more efficient facilities. An efficient building is one that is thought out and executed under bioclimatic strategies such as the use of passive environmental conditioning systems, renewable energy and building materials which are suitable to the climate in question, performs its functions maximizing the safety and comfort of its users, and finally saving energy and reducing the impact on the environment.

In order to ensure the vitality of the future use of the building, the program was organized to be flexible meeting the basic needs and transcends it to incorporate elements of humanization in the form of fresh, colorful and friendly open spaces, not leaving aside its functionality and meeting norms and regulations. The building's current transparency remained, sun protection devices have been improved to allow daylight access and the perception of diurnal changes of light, so it offers a continuous outdoor relation. Bright city light is filtered, softened and introduced from the inner courtyards that continue to contribute to create a pleasant working atmosphere.

The management floor which houses the executive offices and protocol, as well as the legal spaces, opens to an interior garden, where the presence of greenery is present to restore the balance of the current environment and the building functions.

Climatological criteria guide the construction of green roofs to mitigate the strong incident heat load, but humanization criteria also contribute for environmental comfort of the health facilities. Greenery appears in the quotidienne visuals and also in spaces designed for leisure and amenities.

To achieve high level quality, the Ministry of Health is advising the National Public Blood Centers to seek certification of their services as a way to ensure quality. Herein lies the challenge: to advance the issues of quality management, allowing the pursuit of service excellence and ensuring blood safety to public health users. Therefore, the General Coordination of Blood and Blood Products of the Ministry of Health, has developed the National Qualification Program of Blood Centers. The development of this work aims at the continuous improvement of services, as well as the ability to collaborate effectively with the process of external accreditation. The scope of this study shows the actions to be developed with the National Public Blood Centers with the aim of expanding and improving not only blood services but also the buildings which provide these services, ensuring safety and environmental comfort in all levels to public health users.

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