

Beirut Central District Assessment

In 1993, before the creation of Solidere, The staff of EDESSA was retained by the CDR (Council for Development and Reconstruction) and SESDERE (Société d'études et de services pour le projet de reconstruction du centre ville de Beyrouth) in order to conduct a baseline topographical, geological, hydrogeological, seismic and geotechnical study of the entire BCD.

This project included the review of numerous previous studies and published papers, and their evaluation from a reliability stand point.

The project included the compilation of over 190 existing boreholes throughout the BCD in order to better characterize the subsurface conditions and in order to correct and re-establish the geological map of Beirut.



The staff of EDESSA supervised the drilling and coring of about 15 boreholes throughout the Beirut Central District that served for the correlation of the available data and boreholes. This study also addressed the hydrogeology of the entire BCD and a comprehensive seismic evaluation in order to evaluate for the first time in Lebanon the pseudo- quantitative potential ground acceleration that could hit the Capital during a major earthquake.

The geology of the Beirut Central District can be synthesized into a model that would include a fault of approximate North-South orientation separating the Cenomanian dolomitic limestone in the west from the Tertiary Miocenic marly limestone in the east.

The portion in the west was uplifted in past geological eras and is covered in its northern part by quaternary alluvium and man-made fill. A revised solid geological map of the Beirut Central District was prepared along with a presentation of the seismic hazard for the region in general and the BCD in particular.