CANADIAN EMBASSY, RIYADH

Riyadh, Saudi Arabia

Price: 10.7million (USD)
Project Scope: Engineering Professional Services for Physical Security
Size: 3,800 square metres
Project Start: 2015
Project Completion: 2018
Client Reference:
Tony Reich, Senior Principal, R&P Architects, Inc.
Tel: +1 416-480-2020. Email: info@designrp.com
Shelley Huntley, Ph.D, P.Eng. Senior Physical Security Engineer, Global Affairs Canada
Tel: (343) 549-9844. Email: shelley.huntley@international.gc.ca

Project: The expansion of the Canadian Embassy in Riyadh, Saudi Arabia includes a new two-storey addition to the south wing and a new exercise facility, as well as several other modifications and renovations. The project comprised the main building, annexes, entrances, defended perimeter. Explora performed the analysis and design of blast-resistant framing and developed the associated details and specifications for strengthening the façades of the existing structure, to enhance the blast performance of the building to a specified level of protection. We developed protective design features for the additions to the existing building, thus complementing those associated with the retrofit and hardening of the existing building façades.

Assignment: Developed and co-ordinated design remediation features to eliminate deficiencies in the fabrication, erection and installation of the blast hardening features and elements. The addition and alterations to this existing complex is intended to accommodate expanding services in the Middle East and provide a new look and environment for both staff and guests. After 25 years of service in the desert of Saudi Arabia, the existing building systems were in need of updating and replacement. With a renovation of this size on a building of this age, there were updated codes, standards, and technology that had to be addressed.

An addition of 300 square metres on two floors, and a new gymnasium building, were styled to match the 1980s architecture. The addition and renovations were thoughtfully integrated into the original architectural design.

Responsibilities: Oversaw and performed the design remediation process through non-linear, dynamic analysis to address threats from blast scenarios. Design co-ordination with the architect and welding engineer.