

Design, Construction and Building Technologies.

ARCHITECTURAL DESIGN & MASTER PLANNING

Examples of Consulting Services

- Associates., Washington, D.C., RCG / Hagler, Bailly, Inc., USAID; U.S. Agency for International Development, ASH, HNTB, Architekton, and Pattaglia., Consultant to King Saud University, Riyadh, Saudi Arabia. Major activities included: University Main Campus in Riyadh and the Abha campuses, Advisor for UAEU university new Campus for Planning and Design of the new Campus
- Design of residential, commercial and industrial buildings and town planning projects, Design of residential homes in Canada and the design and construction of four pioneering energy efficient housing prototypes for the remote Indian communities in Northern Quebec.
- Prince Sultan Culture Center, King Saud University, Riyadh, Saudi Arabia, The pilgrims accommodation project in Muna valley, Saudi Arabia
- Resettling of "Hoehenmoelsen city", in East Germany, The big banquet hall of "Oedheim city" in south Germany co-operation with the German planning group K.P.S in Esslingen, Stuttgart, Renovation of GENO-house office building, city center in Stuttgart, Designing different Housing projects
- Architecture and Urban Design competitions (First prize in Architecture Competition regarding the design of the ELNG Main office, Second Prize in Architecture Competition concerning Alwatany Bank of Egypt's new head-quarter office, Design Competition for a Yacht Marina in Port said, Design for Cultural Center in Kanater Khayeria, Redevelopment of the Eastern Harbor, Alexandria, Feb. 2005).
- Architectural Design: Designed several residences and multi-story apartments in Yemen; Won 2nd Prize for design of the Yemen Kuwait Bank in Sana'a; Won 3rd Prize for design of a Commercial Residential Complex for Government; Designed the Yemeni Ministry of Education building in Sana'a; Designed the Laboratories of Faculty of Science, Sana'a University.
- Judging Design Competitions: judged an international competition "A Shopping Mall and 5-Stars Hotel in Al-Ain". Client: Abu Dhabi Municipality; Judged a design competition of Abu Dhabi Central Market Client: Abu Dhabi Municipality; Judged a competition for Female Student Dormitories project in UAEU Al-Maqam Campus. Client: UAE University; Judged a competition of UAEU Campus Master Plan project. Client: UAE University (3.2 billion Dhs); Judged a competition for Students' Activities, Educational Facility, and Department of Architectural Engineering. Client: UAE University; Redesigned the University Conference Hall in the Islamic Institute of the UAEU. Client: UAE University; Judged a competition of Low-Income Housing Design Project, cooperation with Department of Planning in Al-Ain, UAE; Judged a competition of the Great Mosque Design Project in Sana'a, Yemen.

- Other Consultations: Consulted in preparing the initial program of Dubai Airport Businessmen Club; Consulted in Improving Space Efficiency and Facility Management of the Faculty of Engineering. Client: UAE University; Supervised the construction of Faculty of Engineering, Sana'a University.

BUILDING PERFORMANCE / SUSTAINABLE ARCHITECTURE / GREEN BUILDING ISSUES

Examples of Consulting Services

- Architectural Design: Designed several residences and multi-story apartments in Yemen; Won 2nd Prize for design of the Yemen Kuwait Bank in Sana'a; Won 3rd Prize for design of a Commercial Residential Complex for Government; Designed the Yemeni Ministry of Education building in Sana'a; Designed the Laboratories of Faculty of Science, Sana'a University.
- Judging Design Competitions: judged an international competition "A Shopping Mall and 5-Stars Hotel in Al-Ain". Client: Ben-Ham Group (400 Million Dhs); Judged a design competition of a park in Abu Dhabi. Client: Abu Dhabi Municipality; Judged a design competition of Abu Dhabi Central Market Client: Abu Dhabi Municipality; Judged a competition for Female Student Dormitories project in UAEU Al-Maqam Campus. Client: UAE University; Judged a competition of UAEU Campus Master Plan project. Client: UAE University (3.2 billion Dhs); Judged a competition for Students' Activities, Educational Facility, and Department of Architectural Engineering. Client: UAE University; Redesigned the University Conference Hall in the Islamic Institute of the UAEU. Client: UAE University; Judged a competition of Low-Income Housing Design Project, cooperation with Department of Planning in Al-Ain, UAE; Judged a competition of the Great Mosque Design Project in Sana'a, Yemen.
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- RLighting display units for refrigerated display cases Client: Carrier Commercial Refrigeration, USA; Roadway Lighting Design and GIS Inventory, Farifax County, USA; Various illumination designs and lighting product development.

Geotechnical Engineering

Examples of Consulting Services

- Consultancy for several projects involving site investigations, feasibility studies for new cities, quality control of engineering fill for roads and for replacement of problematic soils, evaluation of stability of

slopes and escarpments, stability measures of rock slopes, construction and permanent dewatering, design of deep excavation support, traditional and specialized lab testing, pressuremeter testing, field monitoring, geophysical studies, foundation design, effect of tunnel induced ground deformations on adjacent surface and underground structures, Egypt.

- Evaluation of some critically important national geotechnical engineering problems in Egypt (e.g. Evaluating the Stability of Mokattam Escarpments).
- Geotechnical advising for Jurong Consultants Pte Ltd, Singapore, through NTU, 2002 – 2006.
- Geological assessment for the tendering of the construction of the sub-sea Cable Tunnel (C301) through limestone formation in Singapore.
- Consultancy for several projects involving in-situ stress, rock deformation and strength parameters, rock-concrete contact, stability of concrete dams, and tunnels in swelling rocks, through Geotechnical Centre, UWO, Canada.

BRIDGE AND STEEL STRUCTURES

Examples of Consulting Services

- Evaluation of the structural integrity of the steel roof truss and support system of the Soda Building for James River Corporation in Old Town, Maine, USA.
- Investigating the floor vibration of the Bus Terminal of the Port Authority of New York and New Jersey (steel structure), New York City, USA.
- Seismic evaluation and retrofit of the Vincent-Thomas Suspension Bridge in Los Angeles, California, USA.
- Performing Dynamic Analysis of the Mid Hudson Suspension Bridge in New York State, U.S.A.
- Performing Earthquake-Resistant Analysis of the Talmadge Memorial Cable Stayed Bridge in Georgia, U.S.A. (Steel and Concrete alternates).
- Structural CFRP strengthening and repair of Al Ain Bridge (at Truck road between Cement Factory R/A and Mezyad R/A) subjected to collision damage, Al Ain.
- Testing and evaluating the behavior of Al Ain Bridge (at Truck road between Cement Factory R/A and Mezyad R/A) subjected to collision damage, Al Ain.
- Assessment of wind loads effects, according to the ASCE 7-02 standards, on a high-rise residential building in Qatar.

- Strengthening of medium-span steel warehouse, ARABIAN MIX, Dubai, UAE.

DYNAMICS AND EARTHQUAKE ENGINEERING

Examples of Consulting Services

- Seismic evaluation and retrofit of the Vincent-Thomas Suspension Bridge in Los Angeles, California, USA.
- Performing Seismic and Dynamic Analysis of the Mid Hudson Suspension Bridge in New York State, U.S.A.
- Performing Earthquake-Resistant Analysis of the Talmadge Memorial Cable Stayed Bridge in Georgia, U.S.A. (Steel and Concrete alternates)

EDUCATIONAL BUILDINGS

Examples of Consulting Services

- Judged a competition of UAEU Campus Master Plan project. Client: UAE University (3.2 billion Dhs).
- Judged a competition for Students' Activities, Educational Facility, and Department of Architectural Engineering. Client: UAE University.
- Redesigned the University Conference Hall in the Islamic Institute of the UAEU. Client: UAE University.
- Consulted in Improving Space Efficiency and Facility Management of the Faculty of Engineering. Client: UAE University.
- Judged a competition of the Great Mosque Design Project in Sana'a, Yemen.
- Designed the Laboratories of Faculty of Science, Sana'a University.
- Supervised the construction of Faculty of Engineering, Sana'a University.
- Academic Accreditation for Teacher Education.

PROJECT MANAGEMENT AND CONSTRUCTION

Examples of Consulting Services

- Client Briefing Review for the new campus development project for UAE University

- The “Technical Evaluation of PM Proposals for the New Development at Al Raha Beach”, Abu Dhabi, Services were offered to Abu Dhabi Municipality.
- The Technical Evaluation of the Design Competition for Ministry of Health Headquarter in Dubai, Emirates Real estate Corporation
- The Technical Evaluation of the Design Competition for UAE Ministries complex in Abu Dhabi, Emirates Real estate Corporation.
- Design Review for the new campus development project for UAE University.
- Consultant Architect for the following construction projects.
- The Alexandria University Garage;
- Alexandria University Social Club;
- Social and Environmental Center, Alexandria, Egypt;
- Sanabil Village (280 housing units and civic center), Tripoli, Lebanon;
- Touristic Village, west of Alexandria, Egypt;
- Group of Residential Buildings in Alexandria and Marsa Matrouh, Egypt;
- Two Hotels in Marsa Matrouh, Egypt;
- Four Office Buildings, Alexandria, Egypt;
- ALS Private School, Alexandria.
- Architectural design project: "Upgrading and Development of Al-Ahlam Island, El-Montaza Palace, Alexandria
- Partner in the following construction projects: Faculty of Agriculture, Alexandria; Faculty of Agriculture, El-Bostan; Faculty of Nursing, Alexandria.

REINFORCED CONCRETE STRUCTURES, DESIGN AND REHABILITATION

Examples of Consulting Services

- Structural CFRP strengthening and repair of “Al Ain Bridge (at Truck road between Cement Factory R/A & Mezyad R/A) subjected to collision damage, Al Ain.
- Testing and evaluating the behavior of “Al Ain Bridge (at Truck road between Cement Factory R/A and Mezyad R/A) subjected to collision damage, Al Ain”.

- Structural and strengthening design of Addition of two floors on top of Abu Dhabi Municipality building, Abu Dhabi, UAE, Abu Dhabi.
- Structural strengthening design and testing of existing beams to eliminate two columns in private office at the sea palace, Abu Dhabi.
- Structural strengthening design of existing flat panel slabs for changing load conditions in the Financial Gate Way, Dubai.
- Design a practical solution for the structural damage that happened in Mafrag bridge for Public Works Department Abu Dhabi.
- Structural strengthening design of existing beams in the cafeteria of the American University of Sharjah using carbon fiber strips.
- Testing and report writing of 135 beam samples taken from the shotcrete used in Al Fujairah Tunnel and tested in the CEE Department labs.
- Performing Earthquake-Resistant Analysis of the Talmadge Memorial Cable Stayed Bridge in Georgia, U.S.A. (Steel and Concrete alternates).
- Design and analysis of underground reinforced concrete water tanks.
- Assessment of the inelastic seismic response of a 59-span bridge on the US I-155 route, including soil-structure-interaction and asynchronous input ground motions.
- Propose seismic design criteria for Dubai, UAE.
- Seismic design and assessment of several high-rise buildings in Dubai under the effect of severe distant and moderate close earthquakes.

SURVEYING, REMOTE SENSING AND GIS

Examples of Consulting Services

- Deformation Analysis as a stage in Structural inspection of an Impact Damaged Overpass on the Truck Road, AL AIN.
- Reviewing and refining a Request for Proposal to carry out the large project "Aerial Photography and Satellite Imagery for the Mapping of Al Ain and the Eastern Region of Abu Dhabi Emirate.

- Consultation to Al Ain International Airport, Civil Aviation Department, Emirate of Abu Dhabi concerning determination of coordinates of main base stations in Al Ain airport, and elevation differences between ellipsoidal and orthometric heights experienced in some main points in the airport.
- Survey Control for a Bridge over Northern Suez Canal.
- Quality Control of Survey Works for Power Stations.
- Developing Geometrics software for Map Projection and Coordinate Transformation.
- Developing and Testing GPS Attitude Determination Systems.
- Integration of GPS multi-Antenna system with low cost Inertial System for Airborne Remote Sensing.
- Comprehensive mapping of the newly developed Areas, ARE.