

Summary of Capability:

I have attained a solid project experience in North America and Middle East in the design and general supervision of various types of structures, including reinforced concrete buildings of all types (residential, institutional, special buildings, airports, etc.), wastewater treatment plants and associated infrastructure components, water and sewage networks, and other major civil engineering projects.

I have experience in structural analysis and design. Preparation of detailed structural drawings, review of structural shop drawings, and site supervision.

Working knowledge of AutoCAD, AutoTURN, Autodesk Land Desktop, SAP 2000, ETABS, SAFE, ROBOBAT, PROKON, PCACOL, STAAD.Pro, Visual Design, ANSYS, HEC-2, Driven, Slide, and other software applications.

Membership:

Fellowship of Canadian Society of Civil Engineers (F.CSCE) – Canada  
Fellowship of American Society of Civil Engineers (F.ASCE) – USA  
Fundamentals of Engineering (FE) – USA  
Order of Engineers & Architects (OEA) – Lebanon  
Saudi Engineers Council (SEC) – Saudi Arabia

Education:

Master of Applied Science in Civil Engineering, University of Windsor, Canada, 2005  
Bachelor of Applied Science in Civil Engineering, University of Windsor, Canada, 2000

Experience:

**Dar Al-Handasah Consultants (Shair & Partners)– Structural Engineering Dept., Since 2008**

**2013 to Present, Site Structural Engineer**

King Abdul Aziz International Airport (KAIA) – Saudi Arabia

Construction management and supervision for a new airport based on a new phased master plan up to the year 2035, comprising a new passenger terminal complex (670,000 m<sup>2</sup>) with a capacity of 30 million passengers per annum to replace the existing North and South Terminals; facility design to cater for both domestic and international operations, A380 aircrafts and full hub capability with latest systems and equipment; integrated provision for a planned railway station and an automated passenger mover (APM); airfield upgrading, new parallel taxiways, control tower and related systems; state-of-the-art navigation aid and communication installations, FIDS, departure control, life safety aspects and public address systems; Baggage Handling System (BHS), support buildings and facilities, complete landscaping, major utility networks, new landside roads and interchanges; programmed coordination for related projects, including fuel tank farm, desalination plant, upgrading of existing terminals, sewage treatment plant; and planning and infrastructure for a major landside commercial zone, complementing the main development. Tasks also included noise and air quality modeling.

**2011 to 2013, Site Structural Engineer**

Haramain High Speed Railway (HHR), KAEC Station – Saudi Arabia

Participated in the supervision of structural concrete works to ensure their compliance with the approved specifications and contract requirements. Coordination of site works with other trades, and preparation of progress reports and other technical documents.

Construction supervision of the station building and associated platforms for a number of high speed rail lines. The Station itself has a basement with capping slab over which an elevated concourse is situated. This is covered by a steel roof structure. The platforms are of reinforced concrete and covered with a steel and tensile fabric roof canopy structure.

**2009 to 2011, Structural Engineer**

Princess Nora Bint Abdulrahman University (PNU) – Saudi Arabia

Participated in the review, coordination and approval of structural shop drawings and material submittals.

Buildings, infrastructure utilities, landscaped areas and internal road networks related to an educational complex with a total built-up area of 2.8 million m<sup>2</sup>, including 8 academic colleges, 6 health sciences colleges, 2 medical research laboratories, 600-bed hospital (107,000 m<sup>2</sup>), central library, administration building, ceremonial piazza, housing units for 11,000 single students, 400 villas for senior staff housing, 1,400 apartments for junior staff housing, sports facilities, mosques and central utility plants. Works comprise site grading, soft and hard landscaping, internal roads, a flyover, an underpass, water supply and sewerage networks, external and internal fire-fighting, storm water drainage, irrigation, chilled and hot water systems, flood protection, electrical power networks, data and IT networks and systems, security systems, street and outdoor lighting, sewage treatment plant, solid waste transfer station, electrical generation plants and substations, elevated and ground reservoirs, etc. The project comprises several LEED-certified buildings of which three LEED Gold in addition to many modern techniques for energy conservation and renewable energy.

The project also comprises of 11.85 km dual-track elevated APM system, with 14 air-conditioned stations, 2 bus terminals, 3 pedestrian bridges, and a complete maintenance and storage facility. The fully automated system operates along 4 overlapping routes, with headways as short as 90 seconds, achieving full coverage for the university's housing, academic and administrative facilities.

**2008 – 2009, Structural Design Engineer**

Construction Supervision of the Special Forces Facility – Kuwait

Assisted supervision's team in design related for buildings, infrastructure and special military facilities with a total built-up area of 268,000 m<sup>2</sup> to be developed on a site area of 63 ha, serving 6,000 residents and over 600 administrative staff. Project components include general directorate offices, headquarters and barracks for different military departments and battalions, VIP and aircraft protection departments (total of 8 blocks), a wide range of sports facilities and equipment, education department building, building and open-air facilities for military training, sports centre, service buildings, mosque, officer's dormitory and mess, soldier's mess, laundry, cultural centre, clinic, dog kennels with surgical facilities and training fields, supply building and quartermaster stores, spare parts and ammunition stores, workshops, various buildings and structures (parade ground, saluting dais, parking sheds, gatehouses, etc.), in addition to 10 km of roads, paths, landscaping, electrical distribution, external lighting, heating and refrigeration central plant with a total refrigeration capacity of 6,000 TR supplied from 7 water cooled chillers, and other infrastructure such as water supply and storage, fire-fighting, sewerage, storm water drainage, and irrigation system with associated storage facilities.

**2006 – 2008, Structural Design Engineer**

Consolidated Engineering Company (CEC) - Khatib & Alami – Dubai, UAE

Responsible for the structural analysis and design of reinforced concrete structures & structural steel frames, including coordination with other disciplines and overseeing the preparation of technical documents, for the following projects:

- New Doha International Airport – Doha, Qatar  
Design of reinforced concrete structure for the air traffic control tower.
- Al Hassawi Shopping Mall – Dammam, Saudi Arabia  
Design of reinforced concrete structure.
- Hazmieh Saoufar International Road – Beirut, Lebanon  
Design of reinforced concrete structure for service and maintenance building.
- 5 Star Hotel Building – Erbil, Iraq  
Structural analysis and design of reinforced concrete structure.
- Al Khalidiya Tower – Dubai, UAE  
Design of reinforced concrete structure.
- North South Railway – Saudi Arabia  
Structural analysis and design of reinforced concrete structure for the Operations Headquarters as well as for the structural steel frame of the Maintenance Shops
- Al Wahda Club Residential Building – Abu Dhabi, UAE  
Design of reinforced concrete structure.
- 3 Star Hotel at Al Garhoud – Dubai, UAE  
Design of reinforced concrete structure.

**2005 – 2006, Civil Structural Engineer**

Conestoga-Rovers & Associates – Windsor, Ontario, Canada

Responsible for the structural analysis and design of reinforced concrete foundations, including coordination with other disciplines and overseeing the preparation of technical documents, for DTE Energy Project, Detroit, USA.

**2002 – 2004, Civil Structural Engineer**

Spalding DeDecker Associates, Inc. – Detroit, Michigan, USA

Participated in the design and preparation of construction documents for the Detroit Water and Sewerage Department, USA, in the following projects:

- Complex II Drainage in Incineration at the Detroit Wastewater Treatment Plant, Detroit.
- Central Services Facility Improvements, Detroit.
- Haggerty Pumping Station, Novi.
- Eight Mile Road Water Mains Replacement (diameters between 200 mm and 400 mm), Detroit.
- Sheldon Road Water Mains Replacement (diameters between 900 mm and 1,050 mm), Detroit.

**2001 – 2002, Geotechnical Engineer**

SOMAT Engineering, Inc. – Detroit, Michigan, USA

*Responsibilities:*

- Supervision of soil borings and geotechnical investigations on site.
- Monitoring geotechnical instrumentations during construction.
- Monitoring deep foundation installation at construction sites.
- Performing crack mapping and vibration monitoring.
- Performing pile capacity and slope stability analyses.

*For the following projects:*

- Water Works Park Water Treatment Plant, Detroit (Construction value: US\$ 275 million).
- George W. Kuhn Drain - Contract 4: Construction of New Retention Basin, Madison.
- Conner Creek - Construction of CSO Retention Basin, Detroit (Construction value: US\$ 85 million).
- Ford Motor Company Rouge Plant Improvements, Detroit.
- 94 Highway Widening from 12th Street to Sprinkle Avenue, including a 12 km roadway and 15 bridges, Kalamazoo.
- I-375 Highway East Riverfront Improvements, Detroit.
- I-496 Highway Reconstruction, Lansing.