

Dear Madam/Sir;

I am a self-driven structural engineer with a Master of engineering degree from the University of Toronto, and I am seeking to develop my skills in a challenging position.

I have over 15 years of experience in concrete and steel design for new construction, renovations, and additions. In addition to experience in the design of residential, commercial, and institutional projects, I also have expertise in upgrading and renovating existing buildings.

My focus is to ensure that the client's needs and budgets are met within an appropriate timeframe, leading to a successful outcome in every project.

Working as a structural engineer at different multidiscipline firms such as Stephenson Engineering Ltd, Halsall Associates limited, and NORR limited has allowed me to work on many notable projects including TTC Steeles West Subway Station, Union station, Casino project-Moncton New Brunswick, New Oakville Hospital, Wind Turbine-Tuktoyaktuk Northwest Territories, the Humber College Welcome and Athletic Centres, Montreal Premium Outlets, Spectrum Mall, Air Canada Training Centre, and Capital Pointe Condominium and Hilton Garden Inn Hotel, Regina, Saskatchewan.

In addition to designing new projects, I worked on many projects involving renovations such as Canada Post, 64 Jefferson, Highland Creek Treatment Plant, Sheridan College phase I, and National Bank flagship branch.

Recently, I peer reviewed the East Portal Eglinton LRT, and conducted a feasibility study for the University of Toronto to construct two stories above their existing 3-story campus.

Currently, I am working on upgrading 3 sports cities in Saudi Arabia: King Abdul Aziz Sports City in Makkah, Prince Sultan Bin Abdul Aziz Sports City in Abha, and Prince Saud Bin Jalawi Sports City in Al Khobar.

I would appreciate the opportunity to meet with you to discuss how my qualifications will be beneficial to your organization's success. Thank you for your time and consideration.

Yours sincerely
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Education and Professional Qualifications

- Bachelor of Civil Engineering, Asyut University, Egypt
- Masters of Civil Engineering, University of Toronto, Canada
- Licensed Professional Engineer, Province of Ontario
- 16+ years of experience in structural design: new, addition, renovation and Design build projects
- 11+ years of experience in contract administration and field review work.
- 11+ years of experience in Site investigation and evaluation of existing structures.
- 11+ years of experience in shop drawing and connection detail review.
- 7+ years of experience in Project Management of Commercial, Residential and Institutional Buildings from conceptual design to completion. Working experience with both clients and contractors. Monitoring and coaching Junior engineers, CAD personals, Admin. Personals, and contract admin personals.
- Strong work ethic, diligent, committed and able to juggle priorities in a fast-paced environment and produce work that demonstrates attention to detail and meet tight deadlines
- Strong and accurate computer skills in MS Applications.

Engineering Skills

- **Software** - ETABS, STAAD pro, SAP 2000, SAFE, S-line, S-Concrete, RAM and RAM Beam.
- **Design Code** – 2010 NBC, 2012 OBC, CSA-23, CSA-S16-14 and CSA-S6-14.
- **Industry Advisor** – Supervised five Ryerson students on their fourth-year project, 2009/2010 Year, which is my Casino project.
- **Technical Advisor** – Part of the engineering Excel sheets committee. Created and reviewed many engineering Excel sheets to be used internally.

Experience

I have over 15 years of experience in concrete and steel design for new construction, renovations, and additions. In addition to experience in the design of residential, commercial, and institutional projects, also I have expertise in upgrading and renovating existing buildings.

My focus is to ensure that the client's needs and budgets are met within the appropriate timeframe leading to a successful outcome in every project.

❖ Senior Structural Engineer (2011 - Current)

Stephenson Engineering Limited – 2550 Victoria Park Ave., Suite 602, Toronto, Ontario, Canada.

Projects:

- Eglinton East Portal LRT, Value Engineering
- UOT Feasibility Study.

Commercial Buildings

- Spectrum Development Phase 1, Mississauga, ON (Restaurant/Retail)
- Boardwalk Place, Toronto, ON (Restaurant)
- Retail Outlet Store, Mirabel, Quebec. (Retail)
- National Bank Flagship Branch (Retail)
- Dupont Land, Building C, Mississauga, ON (Office)
- Sunwing Building Expansion, Toronto, ON (Office)
- 1128 Yonge Street, Toronto, ON (Office)
- Elgin Mills Cemetery Visitation Centre, Richmond Hill, ON
- 64 Jefferson Ave, Toronto, ON

Projects: (Continue)**Commercial Buildings (Continue)**

- Smart Centre – Wicksteed Avenue, Toronto, ON (Retail)
- Waterside Executive Centre, Port Credit, ON (Office)
- Font hill, ON. (Retail)

Industrial/Manufacturing Plants

- 23 Canada Post Mail Depot; Processing Plants, Various locations across Ontario, Canada (Distribution Centre) 8 New, 2 Additions, and 13 Renovation
- Highland Creek Water Treatment Plant, Toronto, ON (Treatment Plant)
- 550 Cochrane drive, Markham, ON (Primus Data Centre)

Educational Centers

- Humber College Welcome and Athletic Centers, Toronto, ON (Post-Secondary)
- Port Perry High School, Port Perry, ON (Secondary School)
- Fleming College Kawartha Skilled Trades Institute, Peterborough, ON (Post-Secondary)
- Davis Campus – Sheridan College C Wing Phase I and II, Toronto, ON (Post-Secondary)

Residential Buildings

- Heath and Tweedsmuir Phase II, Toronto, ON (Condominium)
- Aquavista , R3R4 Bayside, Toronto, ON (Condominium)
- Balliol Park, Toronto, ON (Apartment Rental)
- Meadows of Aurora – Phase I, Aurora, ON (Apartment Rental)
- Davisville Avenue, Toronto, ON (Apartment Rental)
- Allenbury D, Toronto, ON (Apartment Building)

Health Care Facilities

- Waypoint Centre for Mental Health, Penetanguishene, ON (Mental Health Care)
- Halton Regional Hospital, Oakville, ON (Hospital)
- Napanee Community Health Centre, Napanee, ON (Medical Building)
- Providence Care Hospital, Kingston, ON (Hospital)

❖ **Project Associate, Structural Engineer (2010 – 2011)****Halsall Associates Limited – 2300 Yonge St., Suite 2300, Toronto, Ontario, Canada.**

As an intermediate structural engineer, I have been involving and managing multiple key projects.

Projects:

- **TTC – Steeles West Subway Station, Toronto, Ontario, Canada**

Part of the above ground structural team. The project is a sub-surface two-level structure and above ground TTC bus terminal and two entrances. The Above ground structural team consists of senior engineer, and an intermediate engineer responsible for the two entrances and me responsible for the TTC bus terminal.

My responsibility was to model and design the TTC bus terminal. The 23.5m x 118m steel structure is a green roof expanded on angled columns along the sides of the perimeters. The bus terminal have 6.65m cantilever from the north and the south sides, 8.65m from the west side and 19m cantilever from the east side. 10 Steel trusses were used two support the 8.65m cantilever on the west side and eight framed on all directions trusses to support the huge cantilever on the east side.

- Co-ordinate roof drainage levels and detail with the Architecture Engineer.
- Created ETABS model for the steel roof.
- Designed all perimeter trusses and created a combined model for them with the roof using SAP2000.
- Designed all steels beams using RAM steel beam as well as SAP2000 for continuous beams.
- Designed and scheduled the few core shear walls using ETABS results and S-Concrete.
- Designed and scheduled all angled columns, grade beam using B-Line, and foundations.

Projects: (Continue)

- **Wind Turbine Foundation, Tuktoyaktuk, Northwest Territories, Canada.**

A unique and challenging project required designing 5 steel foundations to support the 30m Northern Power tower wind turbine. Due to site limitation, a steel foundation with steel piles was recommended.

Specific frequency and lateral foundation stiffness as well as rotational foundation stiffness was must achieve for the system to perfectly perform, several layout options and sizes was examined to achieve requirements.

The Structural team consists of Project lead and myself. My responsibilities include the following;

- Created SAP2000 model for the system with the manufacturer loads.
- Designed Foundation beams under all loads combinations.
- Determined and checked pile size and length for strength and soil interaction using Excel.
- Designed pile to beam, beam to beam, and beam to tower connections detail.
- Iterated design to achieve specific frequency and stiffness requirements mentioned above.

- **Bridge point Health, Toronto, Ontario, Canada**

The new \$300M facility is a multi-storey concrete tower (approximately 800,000ft²) that will be tied into the historic Don Jail. It will house approximately 500-bed public hospital space with inpatient, ambulatory care facilities, administrative, parking, etc. The Structural team consists of Project lead, a senior engineer and three project associates. My responsibilities include the following;

- Created Safe models for all different slabs and typical floor.
- Checked long term deflection and added compression reinforcement wherever required.
- Designed all flat slabs, obtained two way reinforcements, added and detailed reinforcement around opening.
- Checked punching shear, determined extra stirrups required and to facilitate opening, as well as integrity steel for all levels.
- Design few corbels to pick up and transfer wall load to columns below.

❖ **Structural Engineer (2007 – 2010)**

NORR Limited - 175 Bloor St. East, North Tower, 15th Floor, Toronto, Ontario, Canada.

As a structural engineer, I have been involved in a wide spectrum of projects with my responsibilities varies from project to another.

Projects:

- **Union Station, Toronto, Ontario, Canada.**

A unique project required underpinning a heritage building to construct a new retail level under existing, to be demolished, lower level. Introduce a second floor in some part of the building. Major coordination required with many stakeholders including GO Transit, Via Rail, TTC, and the City. Structural team consists of Project lead and a senior engineer, two intermediate engineers and two junior engineers. My responsibilities include the following;

- Full responsibility to issue several small early work packages currently issued for construction/Tender to prepare for a major stages packages. Early work packages are small separate projects required design of concrete foundation, strip footing, walls, columns, beams and slabs. Identified all jacking, re-framing required for constructing new structure within existing.
- Designed and detailed new concrete pedestrian bridge above new excavated area.
- Coordinated the design with Architecture and Mechanical teams.
- Coordinated the design with existing and new TTC and LRT structure.
- Designed and detailed new foundation, columns, retaining and basement walls.
- Detailed construction sequence for excavating, jacking, demolishing and constructing new structure.
- Designed and detailed different jacketing required for existing column staying without replacement.
- Helped with the development, review, and update projects specifications

Projects: (Continue)

- **Casino Project - Moncton, New Brunswick, Canada.**

Project consists of 3 separate venues; a casino to accommodate 600 slot machines, 20 tables, a poker room, and a high limit area, a 128-guest room hotel, and a palladium multi-use entertainment center, all of which are linked by an elevated walkway. Structural team consists of Project lead, two intermediate engineers responsible for the Hotel and the Palladium buildings, and I responsible for the Casino building; my responsibilities included all tasks performed in my previous project, The Air Canada New Flight Training Facility, in addition to the following;

- Modeled and design few trusses for long spans and heavier load using SAP2000.
- Modeled and analyzed project as a steel structure using ETABS.
- Provided all necessary respond to contractor 's request for information inquires.
- Reviewed all detailed shop drawing as per our drawing issued for construction.
- Helped with the development, review, and update projects specifications

- **Air Canada New Flight Training Facility - Mississauga, Ontario, Canada.**

A new 3 storey building designed to house 9 full flight simulators, fixed training devices, associated classrooms, support spaces and administrative offices. Structural team consists of Project lead who is a senior engineer, and I. My responsibilities included the following;

- Worked with the project lead on deciding the best structural solution and framing after studied the Geotechnical report.
- Coordinated column locations with the Architecture team.
- Coordinated mechanical roof top unit locations and approximate weight with the mechanical team.
- Load calculation, Column run down, designed columns and footing structures using Excel.
- Framed and designed floor and roof for gravity and snow loading using steel and composite steel deck.
- Designed steel beams using RAM Steel Beam and decided Joist depth.
- Provided all necessary respond to contractor 's request for information inquires while senior engineer was in vacation.

- **St. Mark's Coptic Canadian Village, Stage 1, Markham, Ontario, Canada**

A 1800 seat Coptic Orthodox Cathedral (1st in Canada) and community centre. Structural team consists of Project lead which is a senior engineer, an intermediate engineer, and I. My responsibilities include the following;

- Assisted the intermediate engineer with framing two floors.
- Designed all concrete slabs and beams using Safe and B-Line.

- **Saphira Phase I – Rabat, Morocco**

Phase 1 (Moresque architecture) includes 4 sites with a total of 15 reinforced concrete buildings of 5 and 9 story apartments and lofts, residential units, office, retail, and below grade parking. Structural team consists of Project lead, two senior engineers, two intermediate engineers and three junior engineers. As a structural engineer, my responsibilities include the following;

- Column run down for five reinforced concrete buildings using Excel.
- Designed all columns for all different levels using PCA Column.
- Designed all the perimeter beams using PCA Beam.
- Designed two small buildings, Guard house and Club house, on top of podium slab. Design including slabs, beams and columns using Safe, PCA Beams and PCA Columns respectively.

❖ **Structural / Civil Engineer (1994 – 1999)****B.G. Consultant Engineering Ltd. - 32 Emtedad Ramses, Nasr City, Cairo, Egypt.**

As a structural engineer, I have been involved in a wide spectrum of projects with my responsibilities including the following;

- Performed structural analysis and design of concrete and steel structures using the British codes.
 - Used STAAD-Pro and Excel for analysis and design. And used MS Office for documentation and presentations.
 - Facilitated and supervised technicians producing detailed design drawings.
 - As project engineer responsible for site supervision ensured completed work complied with contract requirements.
 - Set and maintained the execution plan as per the project time frame.
 - Supervised excavation, concreting, steel works, slab on grade, etc.
 - Evaluated and accorded approvals to contractor submittals of working drawings, materials, etc.
 - Corresponded to client, engineering team and government authorities request for information.

A Few Of Notable Projects History

- El Baraka Market, Embaba District, Cairo, Egypt
Designed a two storey retail building with landscaping, parking spaces, food court, washrooms, prayer hall, and offices.
- The Ministry of Health Building, Tanta City, Egypt
Six-storey office building designed to house the minister's office, conference halls, meeting rooms, and various offices.
- AMECO for Industry and Commerce, Sadat City, Egypt
Designed and supervised a single storey assembly factory, lounge rooms, washrooms, and linked to two storey office building.
- EVA Beauty Products Company, Giza, Egypt
Designed and supervised site construction of three manufacturing factories and two office buildings.
- EVA Beauty Products Company, Giza, Egypt
Designed and detailed 180 cubic meters covered one cell unit water tank.
- El Hodaba District, Sharm El Sheikh, Egypt
Designed two single storey bungalow type villas with outdoor swimming pool
- El Sharq District, the sixth of October city, Egypt
Designed and supervised two single storey bungalow type villas.
- Faysal Street, Giza, Egypt
Carried out study to consider adding two stories to two 13_stories reinforced concrete residential buildings

Education

- Bachelor of Civil Engineer - Assiut University, Assiut, Egypt, 1991
(Evaluated by the University of Toronto as a Bachelor degree.)
- Master of Engineering, University of Toronto – 2011. Courses taken: Steel Behavior and Design, Tubular Steel Design, Structural Analysis II, Non-Destructive Test, Project Management, and Advanced Project Management

Previous Work

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| • Quality Specialist – Celestica International Inc., Toronto, Ontario, Canada | 2003-2007 |
| • Inspection Team Leader – Celestica International Inc., Toronto, Ontario, Canada | 2001-2003 |
| • Structural Engineer Officer – Egyptian Army, Cairo, Egypt | 1992-1994 |

Hobbies

- Soccer, camping, fishing, and reading