

Khurshid Anwer, P.Eng.

Senior Civil/Structural Engineer

EMPLOYMENT HISTORY

Advanced Engineering Group Inc., Edmonton

March 2024 to Present

Lead Civil /Structural Engineer

Vtek Consultant Inc., Edmonton

March 2024 to Present

Senior Civil /Structural Engineer

RRP Consulting Engineer, Calgary

Feb 2023 to March 2024

Senior Civil /Structural Engineer

Krahn Engineering, Abbotsford, BC

Aug 2022 to Feb 2023

Senior Civil /Structural Engineer

Atlas BA Consulting Engineer, Calgary

Jun 2018 to Jul 2022

Senior Civil /Structural Engineer

C & S Consulting, Calgary

Jan 2016 to Jun 2018

Senior Civil /Structural Engineer

Imperial Oil, Calgary

Jan 2011 to Dec 2015

Senior Civil /Structural Engineer

CNRL, Fort McMurray

March 2009 to Jan 2011

Senior Civil /Structural Engineer

Bantrel, Calgary

May 2008 to Dec 2008

Civil /Structural Engineer

CH2M Hills, Calgary

Jul 2005 to April 2008

Structural Engineer

PHLC Consultant, Tarbela Dam

Sep 1996 to Aug 2000

Civil Engineer

LBOD Consultant, Hyderabad

Jun 1992 to Aug 1996

Civil Engineer

EDUCATION

MS Civil engineering

University of Windsor, Ontario, 2004

B.Sc. Civil Engineering

NED University of Engineering and Technology,

Pakistan, 1992

PROFESSIONAL CERTIFICATIONS

- P.Eng. APEGA Alberta, Canada
- P.Eng. EGBC, British Colombia, Canada

Courses

- Staad Pro
- S-Frame
- SAP2000, SPR Reviewer
- Mathcad 13
- CTS. FLRA Training, H2S, OSSA Training
- MS Office
- 12th month training in Management & Civil Technology
- ACI, WHMIS & OSHA Training

Career Highlights and Expertise

Khurshid Anwer is a dedicated Civil/structural Engineer with a Master of Science in Civil Engineering (Structures) and a Bachelor of Science in Civil Engineering. His extensive expertise in the analysis, design, layout, and detailing of reinforced concrete and steel structures for municipal, commercial, industrial and oil & gas projects makes him an asset to any Civil and Structural Engineering team.

With significant experience in project management, construction and engineering consulting, Khurshid Anwer specializes in designing modules, pipe racks, equipment platforms, pump stations, and foundations for various equipment and structures in large-scale oil and gas pipeline and mining projects. He is proficient in advanced structural design software, including S-Frame, S-Steel, SAP 2000, STAAD Pro, Mathcad, and AutoCAD, ensuring the delivery of high-quality engineering solutions.

Khurshid possesses a comprehensive understanding of industry codes and standards, such as ASTM, AISC, S-16, CAN/CSA A23.3, and NBCC, which facilitates compliance and fosters excellence in engineering practices.

Relevant Project Experience

Mildred Lake Replacement Project, Syncrude Plant, Fort McMurray,

Major Responsibilities: Stewardship the AMEC EPCM contractor's civil & structural engineering & modularization activities in terms of design development, execution and operation need.

Developed engineering designs for projects components such as equipment layouts, piling, foundations, structural steel, modularization plan, underground services, and site preparation.

Formal review of civil and structural engineering drawings, deliverables, Design criteria, Specification, Geotechnical report, Calculations and engineering studies reports. Evaluated discipline engineering designs during DBM, FEED and detail engineering for plant building, facility, equipment layouts, piling, foundations, structural steel, modularization plan, underground services, site preparation, site layout, drainage, earthworks and grading.

Evaluated and monitor EPC contractor deliverables for correctness and compliance to Imperial Oil/Syncrude standard and specification and as per operation and maintenance requirement. Steward the interfaces between the project management team and EPC contractor organization with respect to civil and structural engineering, project progress, safety and quality.

Initiated Management of Change MOC processes, specification deviations, Non-Compliance Reporting, Decision Logs, Action Logs and Issue's Resolution.

Supervised construction, support commissioning teams and resolve construction and fabrication issues during construction and start-up activities.

Horizon Plant, Canadian Natural Resources, Fort McMurray,

Major Responsibilities: Stewardship the EPC contractor's structural design activities and support operation and maintenance and troubleshooting in plant.

Modified horizon plant structures as per plant operation and maintenance requirements. Prepared scope of work, engineering work package and work order for Capital and maintenance. Prepared detailed cost estimates for work proposals and 'bid' packages. Assisted in improving reliability, safety, operability, and maintainability of plant

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Coker quench line project, CNRL, Fort Mc Murrey, Alberta

Major Responsibilities: Analysis, design, layout and detailing of reinforced concrete and steel structures for CNRL oil & gas projects. Checking shop drawings, submittal, answering RFI's and resolving construction problems.

Designed and analyzed structural steel, foundation and reinforced concrete structures for oil & gas projects using Staad-pro & S-frame and as per conformance to CSA A23.3 and S16

Suncor Voyageur Coker Project, Fort McMurray

Major Responsibilities: Analysis, design and detailing of steel and reinforced concrete structures. Checking shop drawings, submittal, answering RFI's and resolving construction problems.

Analyzed and designed the modular pipe racks as per Canadian steel codes S16, client standard and specification. Analyzed for lifting and transportation.

Check serviceability and stability of the different component of the structures as per requirement of client standard, Bechtel guidelines, NBCC 2005, Alberta Building codes, CSA A23 & S16-01.

Developed structural steel concepts to support process equipment and heavy foundation based on schematic building, process layouts and geotechnical report.

Winnipeg Water Treatment Plant, Barrie wastewater, clayton pump station, Winnipeg

Major Responsibilities: Analysis, design, construction supervision, layout and detailing of reinforced concrete and steel structures for water retaining municipal projects. Checking submittal, Shop drawings, answering RFI's and resolving construction issues. Analyzed and designed water and wastewater treatment plants, crane runway beams and monorail beams, corbels, embedded connection, and special lifting eyes for lifting equipment.

Generated 3D and 2D computer models of plant and perform Finite Element Analysis under static and dynamic loading conditions. Analyzed and designed the pipe racks, pipe piles, platforms and steel truss bridges by modeling in 3-D using software STAAD Pro and S-Frame.

Suncor Voyageur Coker Project, Fort McMurray

Major Responsibilities: Analysis, design and detailing of steel and reinforced concrete structures. Checking shop drawings, submittal, answering RFI's and resolving construction problems. Analyzed and designed the modular pipe racks as per Canadian steel codes S16, client standard and specification. Analyzed for lifting and transportation. Check serviceability and stability of the different component of the structures as per requirement of client standard, Bechtel guidelines, NBCC 2005, Alberta Building codes, CSA A23 & S16-01. Developed structural steel concepts to support process equipment and heavy foundation based on schematic building, process layouts and geotechnical report.

Winnipeg Water Treatment Plant, Barrie wastewater, clayton pump station, Winnipeg

Major Responsibilities: Analysis, design, construction supervision, layout and detailing of reinforced concrete and steel structures for water retaining municipal projects. Checking submittal, Shop drawings, answering RFI's and resolving construction issues. Analyzed and designed water and wastewater treatment plants, crane runway beams and monorail beams, corbels, embedded connection, and special lifting eyes for lifting equipment. Generated 3D and 2D computer models of plant and perform Finite Element Analysis under static and dynamic loading conditions. Analyzed and designed the pipe racks, pipe piles, platforms and steel truss bridges by modeling in 3-D using software STAAD Pro and S-Frame.

Other Experience

- **Nutrien retrofit project:** Modifications of recycle conveyor and shaft structure
- **Portland Pipeline corporation:** Structural modification of platforms
- **Irving oil Tank repair:** Repair of roof truss structure and foundation
- **Suncor Burrard foundation project:** Design of reinforced concrete foundation for tanks
- **Green energy:** New structural steel platforms