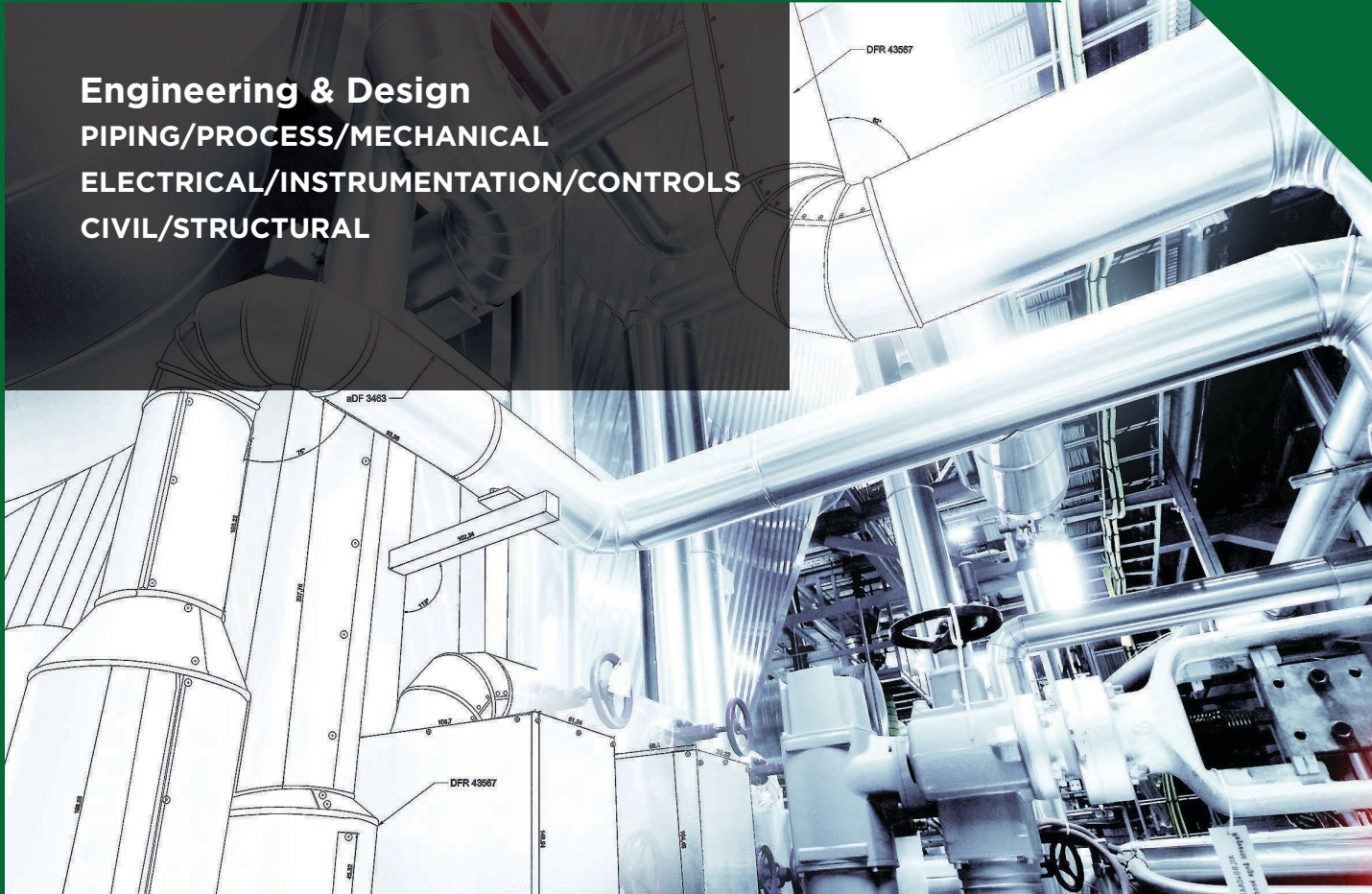


ONEC

Engineering & Design
PIPING/PROCESS/MECHANICAL
ELECTRICAL/INSTRUMENTATION/CONTROLS
CIVIL/STRUCTURAL





CONTENT



TRUST IT IN OUR HANDS

ONEC’s diverse and talented staff will bring your project to life safely, efficiently, on budget, and on time.



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OUR PRIORITY IS SAFETY ALWAYS

A successful project is first a safe project.

ONEC is committed to protecting the health and well-being of our employees and partners. We provide each of our employees with comprehensive safety training throughout their careers. Our proactive approach to safety is promoted through employee participation, at all levels.

We believe a safe working environment is about much more than ticking boxes – it's about identifying and mitigating hazards and creating a productive and happy workplace that enables us to serve you better.

OUR STORY ... SO FAR

ONEC is a mid-sized project delivery company providing exceptional services for over 20 years. We provide our clients with multidisciplinary engineering & design and project management.

Our combined multidiscipline engineering expertise and knowledge of construction practices reduces the potential for error and ensures our clients' projects are completed efficiently and cost-effectively.

Because of our company's size, clients get to know our team and always work with the same people, resulting in stronger working relationships and efficiency. We are agile in our approach to project delivery because we are able to pivot quickly and adjust our standard processes to deliver seamless, innovative solutions to any project's unique challenges.

Once the design phase of your project is complete, we strive to make the next step in your project's lifecycle simple. From our database of trusted partners, we evaluate expertise, past performance, reliability, geographical proximity, and capacity to handle the project, and connect you with those best suited to your unique needs.

Consistently delivering value and facilitating successful collaborations is just part of our commitment to ensuring your EPC projects are completed efficiently, on time, and within budget.

OUR MARKETS

We offer clients in various markets a broad range of engineering and project management services to complete their industrial, capital, and maintenance projects.

 Power & Utilities

 Oil/Gas

 Commercial, Industrial, Mining & Metals

 Renewables, Agriculture, & Chemicals

OUR PEOPLE ARE OUR SUCCESS

WHO WE ARE

ONEC’s highly qualified leadership team applies an entrepreneurial and hands-on approach to everything we do. We combine decades of experience in industrial projects with extensive engineering prowess to deliver results that surpass expectations.



OUR RANGE

ONEC has multiple locations to better meet the needs of clients.

Relationships matter. At ONEC, we believe in local leadership and Indigenous involvement, and we engage top talent from the communities we work in. We understand that local knowledge and presence are key to not only our overall business success but the economic success of the regions we work in. Our objective is to succeed along with the communities in which we work by offering Indigenous and local individuals the opportunity to envisage a career path within ONEC. It’s all part of our commitment to shared success.

OUR LOCATIONS

 Edmonton, AB



PROJECT DELIVERY

PROVIDING THE PEACE OF MIND
CLIENTS DESERVE

At ONEC, we listen to our clients and take the time to really understand their project needs and requirements. We'll provide customized solutions to help you successfully achieve your project goals in a way that is both timely and cost-effective.

When it comes to your complex industrial project, we know that time is precious — which is why responsiveness is a core part of our overall service offering. We'll never leave you waiting for answers. Our dedicated team of professionals are always on hand to respond to any questions or concerns you have along the way.

OUR SERVICES

ONEC offers a diverse range of engineering & design services. What's more, we ensure each and every design is compliant, practical, and buildable.



Piping/Process/Mechanical Engineering

Our team provides complete mechanical engineering and piping design and analysis services for the development of mechanical components and process systems.



Electrical/Instrumentation/Controls Engineering

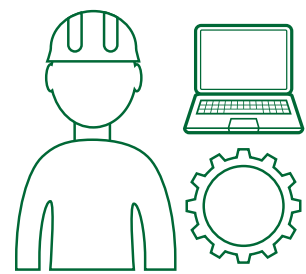
We offer complete and cost-effective electrical, instrumentation, and controls engineering services.



Civil/Structural Engineering

Our highly skilled civil and structural engineers and designers are knowledgeable in all aspects of design and implementation. We provide preliminary and detailed engineering expertise, as well as site development services for both operating and new facilities.

PIPING/PROCESS/ MECHANICAL ENGINEERING



We're dedicated to producing reliable designs.



Our diverse mechanical engineers are experienced working in an EPC+M environment on brownfield maintenance and capital projects in all market sectors. They use only the best analysis tools to validate designs and ensure safety, functionality, and longevity.

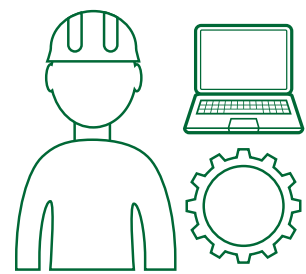
1 Mechanical/Piping Engineering

- Green & brownfield construction
- Equipment (vessels, tanks, etc.) design sizing & specifications
- Vessel/fitting design (ASME, ABSA, API, etc.)
- Piping design & analysis (2D & 3D)
- Materials handling design
- Finite Element Analysis
- Piping system design and stress analysis
- Hydraulic analysis
- As-building and site verification
- Construction support
- Multidiscipline project management
- Commercial and infrastructure mechanical engineering
- Distribution manifolds
- Custody transfer metering and proving
- Pipe rack and steel structures
- Integrated module and skid design
- Industrial fire protection design
- Industrial building and shelter layouts
- Material requisitions, procurement support, and expediting
- Construction management support

2 Process Engineering

- Process design and optimization
- Feasibility and FEED studies
- Process auditing
- Computer process simulation
- Process Flow Diagrams (PFDs)
- Piping and Instrumentation Diagrams (P&IDs)
- Municipal and industrial water and wastewater treatment
- Natural gas processing, scrubbing, cracking, upgrading, refining, and distillation processes
- SAGD processes
- Boiler design review and chemistry optimization
- Cooling tower design and optimization
- Stormwater management
- Secondary containment design
- Tank and tank foundation design
- Steady-state hydraulic modeling
- Booster and mainline pumps
- Transient hydraulic modeling

ELECTRICAL/ INSTRUMENTATION/ CONTROLS ENGINEERING



Designed specifically for you.

Our team knows how important the successful operation of your project is to you. Our experienced electrical engineers work with you to deliver custom design solutions that meet your specific needs.

1 Electrical Engineering

- Electrical equipment specification and selection for low & medium (38kV) voltage
- Power distribution design
- Load flow, short circuit & arc flash studies, grounding, protective device coordination
- Electrical systems detailed design
- Hazardous area classification & equipment selection
- MCC, motor & VFD controls, grounding design, lighting design, panel design
- Electric heat tracing design
- UPS & emergency generator systems
- Field support (commissioning, testing, startup, etc.)

2 Instrumentation Engineering

- P&ID development
- Instrument selection & specification
- Valve sizing & specification
- Control panel/cabinet design
- CEMS, gas detection & analyzer system design
- Intools instrumentation database
- Installation & calibration
- Commissioning, testing, & start-up support
- Shutdown support
- Training
- Quality assurance/control, code compliance, & inspections
- Maintenance

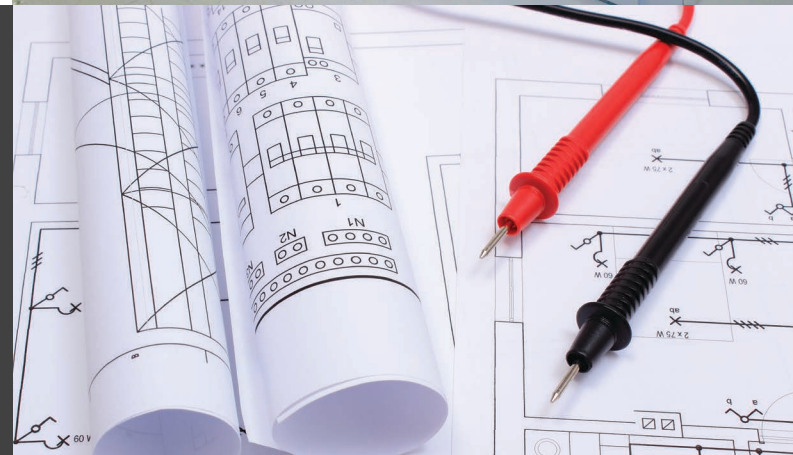
3 Controls Engineering

- Control & communication architecture
- System design and equipment specification
- Logic development, control narratives, & programming
- Network systems design
- Cabinet layouts
- Testing (FAT, SAT)
- OEM equipment integration
- Commissioning & start-up support
- DCS/PLC & SCADA/HMI system design
- Combustion & boiler control
- Burner management systems
- Safety instrumented systems
- Custody transfer flow & analysis system

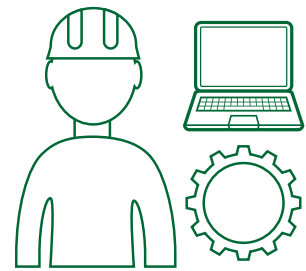
TOOLS & SOFTWARE

ONEC has a broad range of experience across various platforms and uses only the best in industry tools and software, including:

- AutoCAD
- Plant 3D
- SolidWorks
- MicroStation
- Caesar II Pipe Stress
- CodeCalc Vessel Analysis
- Algor FEA
- AFT Arrow/Fathom
- Allen Bradley
- Schneider
- Siemens
- Wonderware



CIVIL/STRUCTURAL ENGINEERING



We're there for you.



ONEC's seasoned structural and civil engineers and design technicians can help ensure you are protected. We're committed to producing designs and providing field services that keep your employees safe, your equipment reliable, and limit future repair costs.

1

Structural Engineering

- Lift designs, lifting device design, & load rating
- Structural assessments
- Turnaround engineering support
- Materials handling equipment
- Rigging design
- Specialty equipment & tools
- Temporary shoring & supports
- Modular designs
- Substructures
- Concrete
- Skids
- Equipment supports
- Access structures
- Pipe racks
- Conveyor galleries & supports
- Ducting & breeching
- Cranes
- Monorails
- Hoist & tigger systems
- Below the hook lifting devices
- Hoppers
- Chutes
- Silos & bins
- Buildings, foundations, platforms, & shelters

ENHANCED 3D MODELING & PROJECT INTEGRATION

It's more than just a pretty picture. There are countless benefits to ONEC's unique approach to 3D modeling and project integration. The focus is to represent reality and create an immersive experience for our clients. Our approach and methods are tried, tested, and proven to be effective.

Advantages:

- Life-like 3D modeling and rendering augments project understanding
- 3D laser scanning integration promotes unparalleled design accuracy
- Increased FEED and detailed design accuracy
- Augmented clash detection using true parametric data
- Ability to generate integrated project scheduling
- Project constructability assurance through model reviews
- Integrated graphics for Construction Work Packages
- Model availability for site personnel to reference

2

Civil Engineering

- Site layouts
- Drainage and containments
- Access roadways
- Underground services
- Earthwork
- Utility right of way

OUR PROJECTS

PIPING/PROCESS/MECHANICAL



01 COAL-TO-GAS CONVERSION

ONEC performed a coal-to-gas conversion involving a new natural gas supply, installation of main gas elevation, ignitor, and burner valve skids, new fuel gas and vent piping, and other related equipment required to add capability for the boiler to operate on natural gas. ONEC provided demolition, design, installation, modifications, fabrication, determination & retermination, and commissioning support services.



02 GALORYL SYSTEM UPGRADE

ONEC provided detailed mechanical and piping engineering, structural engineering, electrical engineering, and instrumentation/controls engineering for a replacement galoryl application system. The system ONEC designed was more effective and reliable than the previous operation. Process enhancements of the new system eliminated deficiencies and alleviated downstream stockpiling hazards.



03 EAST/WEST PIPERACKS

In order to increase the incoming shipper capacity to a terminal, the client installed a new piperack to a meter bank. This pipe rack was intended to convey new delivery lines from various facilities with an ultimate build-out for two additional rack tiers and structural capacity for numerous future incoming shipper pipelines. ONEC provided FEED, detailed engineering, procurement support, construction support, and completed as-builts.



04 TANK FARM EXPANSION

ONEC provided full engineering, procurement, and construction services for a tank farm expansion at a pharmaceutical facility in Edmonton. The client initially came to ONEC for a study as we had designed and installed the previous tank farm expansion at the site. This project included four 50,000L, 316SS solvent tanks, loading/unloading facilities, pumps, metering, feed vessels, and filtering systems. Our team produced all engineering deliverables, procured equipment and bulk materials/tanks, and performed the construction.

OUR PROJECTS

ELECTRICAL/INSTRUMENTATION/CONTROLS



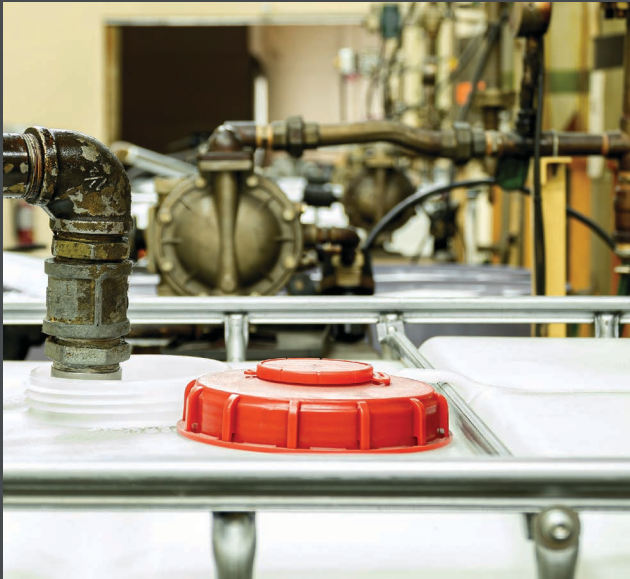
05 GENERATING STATION

ONEC provided EPCM services for 6 new switchgear buildings for a client's generating station. These were installed and commissioned over a 3-year project.



06 SOLAR PLANTS

ONEC completed detailed design as the engineers of record for two large scale solar plants (22 MW & 26 MW). ONEC supplied electrical design, arc flash and ground fault studies, coordination with the electrical utilities (Fortis and the AESO), structural design, pile design and review, complete SCADA design including fabrication of SCADA cabinets, weather station design and fabrication, site surveys, design, and fabrication of MCU racks.



07 API TANK FARM AND TRANSLOAD SKID

The scope of the project included the design of a crude oil storage tank, pump station, electrical, and instrumentation updates, and full commissioning of the facility.



08 HVAC UPGRADES 2019

ONEC was engaged to provide engineering services related to HVAC upgrades. The scope of work included detailed engineering for the process, mechanical, structural, electrical, and building systems. ONEC also prepared Construction Work Packages (CWP) and provided construction support for the project.

OUR PROJECTS

CIVIL/STRUCTURAL



09 ENVIRONMENTAL
OPERATIONS
FUZZY FILTER
INSTALL

ONEC provided the detailed design for civil/structural, mechanical/piping, and electrical/instrumentation/controls, procurement, demolition, and installation for a replacement fuzzy filter install.



10 EDUCATION
CENTRE
SOLAR

ONEC provided a turnkey roof mount solar array for a education centre registered under the Micro Generation Regulation. Solar engineering, structural engineering, and construction services were provided by ONEC.



11 PIG LAUNCHER
ADDITION

ONEC provided design, engineering, and construction services for the addition of a new permanent pig sending trap and kicker line for a client's iso-octane pipeline to provide additional safety when conducting pigging operations. The work included the design of piles and structural steel, a flare line extension, and the fabrication and installation of the design.



12 AERATION HALL
STRUCTURAL
ASSESSMENT

ONEC was engaged to perform a structural assessment of an aeration hall building. Following a thorough assessment, ONEC prepared a structural assessment report with observations and recommendations, as well as a cost estimate for the engineering repair scope(s) as required. ONEC also advised the client of any issues requiring immediate repair work during the inspection stage of the project.

ONEC



HAVE A PROJECT IN MIND?

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