

Some say it can't be done. We think differently.

DOWCO GROUP OF COMPANIES

THE FUTURE OF CONSTRUCTION



OPEN BIM™



If you want to see the Future of Construction
Watch Dowco

dowco.com

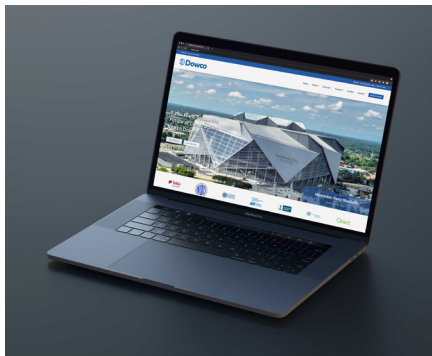
OPTIMAL CONSTRUCTABILITY FOR ANY DESIGN





..... **"Some Say It Can't Be Done - We Think Different"**

Since 1970, Dowco has grown from a three-person operation to become one of the largest fully-automated 3D Modeling, Detailing and Virtual Construction Service providers in the world. Established in British Columbia, Canada, the company today employs more than 240 staff across 4 offices and 4 countries.



Mission Statement

**OPTIMAL
CONSTRUCTABILITY
FOR ANY DESIGN**

Our Promise

Dowco's 50+ years of history, heritage, and ongoing success can be explained simply: At Dowco we believe in our service and products. We work hard to get to know our customers, to develop a connection and to understand them and their needs.

Above all else, Dowco is dedicated to bringing integrity and trust back to the design and construction industry. We strive to make every part of your experience working with us as simple and professional as possible.

We are committed to clear and unambiguous consistent language at every point of customer contact.

We demonstrate our commitment daily by providing a superior quality service that our customers and partners can expect and depend on.

**If you want to
see the future
of construction,
watch dowco.**



"Sustainable construction practices are good for the company, but more importantly, they are good for people, the planet and frankly, it's just the right thing to do."

Services we provide:

Preconstruction Modeling and Detailing

- Structural Model Creation
- Fabrication Ready Models (LOD 400)
- Structural Steel Detailing
- Cast in Place Modeling and Detailing
- Rebar Modeling and Detailing
- Mass Timber Modeling and Detailing

Model-Based Estimating

- Early creation of 3D Structural Model
- Faster and more accurate estimating
- Accurate and early advance material ordering
- Early project communication and collaboration
- Provide owners project visualization and enable informed decision making on value engineering initiatives

Bridge Modeling and Detailing

- Dedicated, highly-experienced bridge team
- Foot bridges, highway and railway structures
- No bridge too simple or too complex
- Deliverables: 3D models; shop drawings; erection drawings; placement drawings; blocking diagrams; bills of material; FabTrol .kss and .xsr files; CNC files; CSV files; plate development details, including allowances for cutting/burning; and center of gravity information.

BIM Information Modeling (BIM)

- 3D Structural stick modeling
- Multi-material modeling (concrete, glazing, curtain wall)
- Digital 'walk throughs' to resolve clashes or conflicts
- Model Based Estimating and bid submission support services
- BIM Coordination and Management
- Model Hosting





Dowco Constructability Consulting

DOWCO'S VIRTUAL CONSTRUCTABILITY MODEL

- Facilitates BIM (if willing participation from sub-trades)
- Provides a clear definition of scope and visualization of the structure
- Enhanced clash detection and prevention
- Structural fly-through and animations
- Crane placement simulations
- Visualise erection scheduling and sequencing
- Accurate advanced materials lists

Project Management Services

Designed for the General Contractor, Dowco's Constructability Consulting service provides an early review of design in order to deliver a clear definition of scope and visualization of the structure. Dowco develops an LOD 400 Structural Model containing the structural steel and/or concrete components during the Construction Document (CD) stage of the project design. This Fabrication Ready Model will pay huge dividends for the GC when it comes to Fabricator performance, project communication, schedule, costs and margins.

Expert Witness (For Claims Or Court)

- 240 highly skilled, industry knowledge workers
- 50+ years steel industry and business experience
- Contributed expertise and applied technology on some of the most technically challenging projects in the world
- Examine whether project participants faced design and construction hurdles according to industry standards, and if they were equipped with appropriate technology and best practices

BIM Early Involvement

Dowco Group of Companies have been members of Integrated Project Delivery (IPD) teams at the early stages of many design build BIM projects. With our specialized construction knowledge, effective collaboration methods and applications, we have achieved and delivered added value through true integration between design and construction.

Employing 3D application Tekla Structures, our Project Managers, Engineers, and Drafting Division can offer design/engineering, component integration, and 4D/5D modeling/construction services, all of which are essential for an efficient building model.

An additional advantage to working with Dowco is leveraging an “as-built” model. At the end of the project construction phase customers are left with a complete as-built virtual model. This model can be utilized for up-upgrades, maintenance and facility management as well as a design reference for future projects.

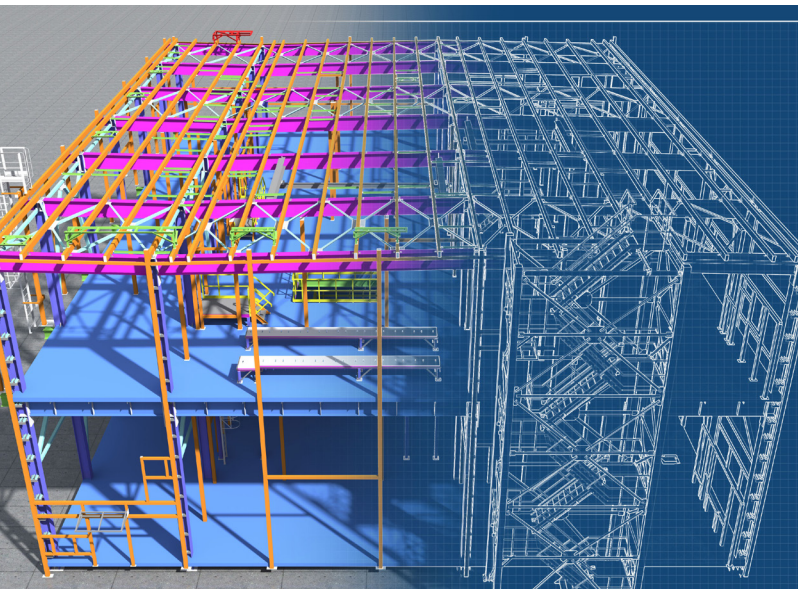
Dowco has chosen “best in industry” applications such as Tekla because of their Industry Foundation Classes (IFC) capability. The IFC is a vendor-neutral open data exchange specification that facilitates collaboration and sharing of information. Dowco also employs in-house computer technicians / programmers who continuously develop our proprietary applications, ensuring uninterrupted support and collaboration with any and all customer information exchange systems.

Pre-Construction Services

Dowco are strong proponents of steel detailers working directly for or with the Structural Engineer or General Contractor during the design and tender stage. Such an approach eliminates double handling and reduces the number of RFI's (requests for information) later in the project. Having detailed drawings and material reports available at the bid stage serves to reduce the risk for steel fabricators and allows them to order material and start fabrication as soon as the contract is awarded.

Summary

Dowco Consultants Ltd has assembled possibly the largest North American experienced production staff providing ‘specialized’ 3D engineering and detailing services. Dowco’s global 24/5 production operation enables the company to compress time and create a ‘blended rate’-pricing scenario, which serves to ensure competitive pricing in an increasingly competitive and globalized marketplace.





Together Everyone Achieves More

Global IT-enabled Production Operations

Demographics indicate populations are aging in Canada, USA, Asia and much of Europe. We know this only too well, as demand for experienced steel detailers and engineering technicians increases. This shortage, combined with the fact that there are few technical schools in North America offering structural drafting/detailing as part of their curriculum, presents a problem for the North American steel industry. Dowco incorporates a perfect blend of IT-enabled overseas resources combined with the largest North American-based steel detailing production team in the industry. Dowco's global production operation enables the company to create a 'blended rate'-pricing scenario, ensuring competitive pricing in an increasingly competitive and globalized marketplace.

Community

Dowco proudly supports charitable initiatives in the communities where we operate through donations and sponsorship programs. We embrace the diversity of people's social needs, ideas and interests, and therefore we distribute our contributions over a broad range of initiatives, including education, health, arts and culture, community development and sports and athletics.



Leadership Team



Ewen Dobbie

Ewen Dobbie is the President and Chief Executive Officer of the Dowco Group of Companies. Ewen graduated from the University of British Columbia in 1990, beginning his full-time business career with Dowco Consultants Ltd soon after. Dowco being North America's first Tekla Structures user and Reseller, he was instrumental in the development of North America's 3D Modeling and emerging Building Information Modeling market. In the past he has managed both the technology and software sales divisions and the 3D modeling & detailing services business and is currently responsible for the global expansion of the Dowco Group's business interests.



Brian Pyper

Brian Pyper is the Chief Operating Officer of Dowco Consultants Ltd. He began his career in the structural steel industry in 1987 as an iron worker in Scotland. In 1994, Brian immigrated to Canada and completed 18 months of college to receive his diploma in structural steel detailing. Committed to the steel detailing industry, Brian is continuously increasing his knowledge in drafting, engineering and business. He earned his MBA and is a registered Project Management Professional. Brian started his steel detailing career with Dowco but went on to successfully establish a BC branch for an Alberta steel detailing company before rejoining Dowco in 2013 in his current position.



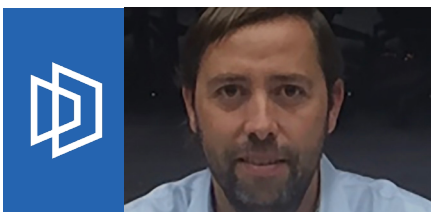
Sanjay Prasad

Sanjay joined Dowco Consultants Ltd. as a Structural Detailer in 1987 and now fulfills the role of Vice President of Special Projects. In those 30+ years he has worked as a Structural Steel Detailer, Checker, Project Manager, Software Sales Rep, Software Developer, R&D Manager, Technical Support and Trainer. In 1995 he became heavily involved with the customization of macros for Tekla Structures (formerly Xsteel) for the North American market and became one of the real Tekla power users and developers worldwide. Working on "special project" requirements, he is able to facilitate the technical environment and production processes to ensure customer issues and requirements are addressed.



Ron Cuthbert

Ron currently fulfills the role of Vice President at the Dowco Group of Companies. After receiving his BSc (1986) degree in Computer Science, Ron joined the Dowco Group in 1995. In his time with Dowco, Ron has fulfilled a diverse series of roles and duties, and now works closely with the CEO and Executive Vice President to implement plans. Ron currently oversees all administrative tasks associated with running Dowco's offshore offices, manages the IT staff, and oversees implementation of strategic plans within the Dowco Group.



Pablo Acuña

Pablo is the Managing Director at Dowco Consultants Chile. Pablo began his career with Acuña y Asociados S.A, a well-known detailing company in the industry, first starting in 1998 as an operations analyst and progressing through to company to become a partner and General Manager at the time Acuña was acquired by Dowco. Pablo was the key factor in the company's global growth, helping move the firm from a local engineering provider in Chile to an international company. Pablo is a Civil Industrial Engineer and MBA with a solid orientation to management and operations, which together with his experience as an entrepreneur provides the basis for his current challenge.



Vicente Aguirre

Vicente is the Vice President of Operations at Dowco Consultants (Chile) SpA - Acuña Steel Detailing. He began his career as a structural engineer in 1999 in Concepción, Chile, and in 2001 became part of the Acuña y Asociados team in Santiago, serving as project engineer, project manager and operations manager. He earned his MBA in 2015. His experience with Acuña includes structural engineering and steel detailing and has been in charge or supervised the execution of more than 300 projects, mainly in the industrial, mining, commercial, educational, residential and high rise sectors in the North American market.

Sales



Christine Boutet

Christine initially joined the Dowco Group of Companies in 1997 as a Sales and Account Manager in the software division selling Tekla Structures to Canadian companies. Prior to this she worked in the Structural Steel industry, first with a fabrication company, and laterally for a detailing company in fulfilling a number of roles. After a short 18-month absence from Dowco, Christine rejoined Dowco Consultants in late 2017 as a Sales and Account Manager in the area of Detailing and Pre-construction services. Her experience with fabricators, engineers and detailing companies makes her very qualified to serve the interest of our North American customers.

Mass Timber



Kevin Tsai

Kevin graduated from Vancouver Community College June 2014 and began his career at Dowco that same month. Kevin worked in Dowco's steel detailing production team for 6 years before transitioning to Dowco's mass timber modeling and detailing department. August 2021, Kevin was appointed Mass Timber Manager responsible for managing Dowco's global mass timber modeling and detailing team.

Production Quality



Tony Han

Tony is Dowco's Quality Assurance Manager (QAM). Tony joined Dowco in 2003 and brings 25 years experience in the steel detailing industry to his position. During his tenure at Dowco, he has worked as a Senior Detailer, Project Manager, and Office Manager for our former Burnaby office location. Tony has worked on a variety of major projects including high rises, museums, stadiums, power plants, bridges, and schools. He works closely with all Dowco's offices to help improve quality and processes. Tony also holds a Bachelor's degree in Mechanical Engineering.

International Offices



Pradyut Kumar Roy

As Managing Director at Dowco Consultants India Private Ltd, Pradyut was key in establishing and growing Dowco's Indian production office to its current staffing levels. Born and raised in Kolkata, India, Pradyut studied Civil Engineering and graduated from Bengal Engineering College (India) in 1997. After graduation he obtained specialization in computer applications in structural engineering, including Finite Element Analysis, Dynamic Analysis, Advance Structural Analysis and Steel Detailing in AISC, CISC, IS standard.



Nathaniel Palmones

Nathaniel manages Dowco's Manila production office. With 28 years of experience in structural and miscellaneous steel detailing as a Detailer Checker, Supervisor/Production Manager and as a former owner of a detailing company, Nathaniel bring the requisite experience to run Dowco's largest offshore production office. A result oriented team player, he is very well respected within the organization. Nathaniel, holds a B.Sc. in Civil Engineering.

Products Utilized in Dowco's Workflow:



Trimble's Tekla Structures is Building Information Modeling (BIM) software that enables the creation and management of accurately detailed, highly constructible 3D structural models regardless of material or structural complexity. Tekla models can be used to cover the entire building process from conceptual design to fabrication, erection and construction management. Users of Tekla Structures since 1995, Dowco has created custom plug-ins, productivity enhancement tools and integrated data management into their daily production workflows.



We do more with Qnect. With Qnect's fast and intelligent solutions, we can complete more projects in less time. We can connect a 3D model in minutes and provide optimization data, all within AISC code. The time and material savings are then passed on to fabricators and erectors. It's a great win for our customers and our customer's customers.



Panzura is a hardware solution that allows us to host construction models in the cloud. Panzura allows multiple office locations to share BIM models in real time and enable instant collaboration and simultaneous sharing of project data.



Bluebeam PDF Revu makes our life easier with simple PDF creation, markup, editing and access features. Bluebeam PDF Revu integrates with MS Office programs for one button file creation and includes the Bluebeam PDF printer to create a PDF from just about anything.



Dowco is also proficient in the use of Autodesk Navisworks and Revit.



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