

Optimal Constructability For Any Design

MASS TIMBER

THE FUTURE OF CONSTRUCTION



OPTIMAL CONSTRUCTABILITY FOR ANY DESIGN





MASS TIMBER

For more than 5 decades Dowco has worked to assemble possibly the largest, highly skilled and experienced 3D BIM personnel providing 'specialized' 3D detail engineering and drafting services in the world.

Planning with the future in mind, Dowco is committed to embracing sustainable practices in industrial facility, infrastructure and building construction. At Dowco, we recognize that 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.

There are two key areas that Dowco focuses on to deliver its commitment to sustainability: materials and planning. Dowco has a strong focus on steel and mass timber construction, but the core of our business is dedicated to pre-construction planning.

Proper pre-construction planning reduces problems that can occur on the construction site; problems that lead to delays and wasted materials. Every piece of wood not used has an impact on the environment, as there were resources used to create the material, but no value derived from its use. Fabricating only what is required saves materials, time, money and the planet.

Dowco promotes and implements innovative means and methods in its service deliverables that align with this commitment to sustainability.

Dowco can provide complete detailing and drafting services. 3D modeling software is used to virtually create each building before any components are manufactured and the building is constructed. This allows our detailers to detect potential challenges and problems early, ensuring seamless and streamlined installation on site. Beginning with 2D architectural and structural drawings, Dowco develops an accurate digital model which includes all Glued Laminated Timber (Glulam), Cross Laminated Timber (CLT), steel connections and associated hardware. Using Dowco's digital models, we generate the shop drawings for CLT panels, Glulam and steel connectors. Digital files can be sent to CNC machines for fabrication. The model created by Dowco is used early on in the project to generate material lists (down to the number of screws) for the efficient purchasing of all timber, steel and hardware components.



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Mass Timber Experience

- Dowco has successfully completed more than 60 MT projects over the past 2 years.
- Dowco has developed custom software component applications and connections for Mass Timber modeling and detailing.
- Dowco has developed internal systems, best practices, and trained 60 structural modelers and detailers in Mass Timber.
- Dowco's global production team is comprised of 300+ 3D Modelers, Detailers and Project Managers. Dowco has the training systems, technology, and people to further scale our MT modeling and detailing team to meet customer project demands.
- Dowco's core team consists of 15 Mass Timber detailers located in our BC, Canada Head Office.
- Dowco's Canadian production team is bolstered by 15 trained Mass Timber detailers from Dowco Consultants Philippines Inc office, 23 from Dowco Consultants India Private Limited office and 5 from Dowco Consultants Chile SpA office.
- Dowco offers Mass Timber modeling and detailing in both Tekla Structures and Cadwork software.

Project Showcase

Beaverton Public Safety Center

The three story, 72,400 sq. ft. Beaverton Public Safety Center opened May, 2020. A combination of structural steel, cross-laminated timber (CLT), concrete tilt up panels and floor slabs were used to ensure the building could withstand a severe earthquake triggered by a fault off the Oregon Coast. Dowco provided 3D modeling and detailing for both CLT and steel portions of the building. The BIM process allowed for real time collaboration between the two Dowco project teams which drastically reduced time resolving issues between steel and CLT portions of the building.





Project Showcase

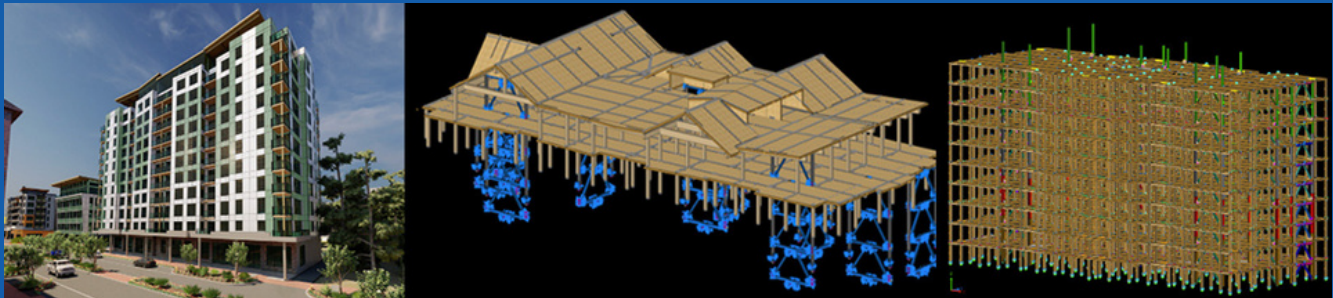
Google - Borregas

Dowco was selected to provide Mass Timber Modeling and Detailing for Google's first mass-timber office building in Sunnyvale, California. This five-story project 180,000 square foot building is the first of several buildings Google is constructing using Mass Timber.



Tallwood - Victoria, BC

Tallwood is a 12 storey Mass Timber building project located in Victoria, BC. A mixed use 13,034 m2 building with first floor retail and commercial and subsequent floors residential.



Washington County Events Center

The Washington County, Oregon Wingspan Event and Conference Center is a 52,000 sq. ft. high-tech, state-of-the-art, multi-purpose meeting and events destination that serves as the centerpiece of a revitalized Fair Complex. The Center features a 39,000 sq. ft. Exposition Hall with 30-foot ceilings, rooftop solar array, 13,000 sq. ft. Conference Center, full commercial kitchen, concessions, and offices. Dowco provided the 3D model and details for both Glulam and CLT on this project whilst coordinating with the developed IFC Steel Model.





Project Showcase

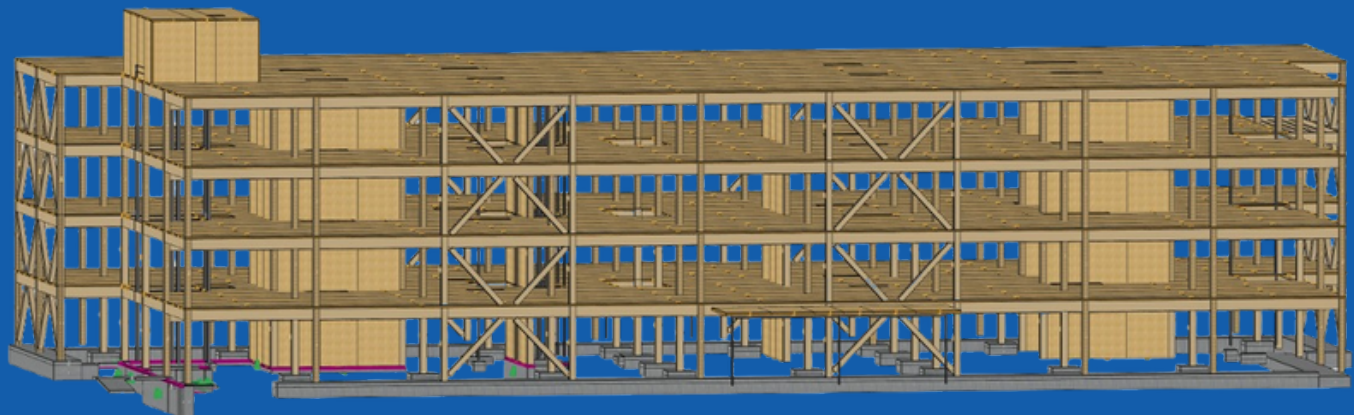
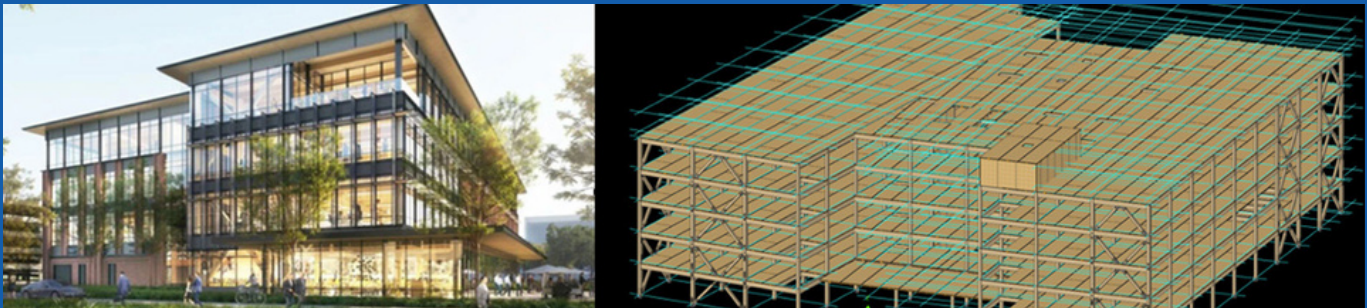
Walmart Campus Building

U.S. retail giant Walmart's new headquarters building in Bentonville, Arkansas is built using 1.1 million cubic feet of cross laminated engineered mass-timber wood components modeled and detailed by Dowco.

Accompanying Walmart's new mass timber headquarter building will be another 11 mass timber buildings, along with amenity buildings, parking decks and surface lots on Walmart's 350-acre campus.

Dowco was proud to be selected to provide modelling and detailing services for what is poised to be the world's largest use of mass timber for a corporate campus, with an estimated 2.4 million square feet of office space.

The use of regionally sourced mass timber on this project reduced the transportation required to move raw material from the forest to the Arkansas plant and on to Walmart's new campus construction site and serves to connect Walmart associates with nature and the beauty of Arkansas and their workspace.





Local Convenience

Established in Canada in 1970 and working primarily on North American projects ever since, Dowco sees ourselves as your Local Company in a global marketplace. Dowco gives our customers the ability to deal with a company in the Americas and leverage the power of the global economy to compress timelines and lower costs.

CANADA OFFICE

Langley, B.C.

Corporate Office, Sales, and Production 60 Senior Staff for Managing projects

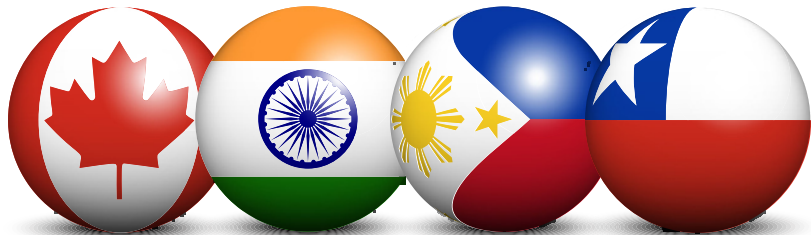
CHILE OFFICE

Santiago

Sales and Production 40 Production Staff with Spanish-speaking capabilities

Global Power

Being located in four countries in four different timezones gives Dowco a 24-hour-a-day operation. Dowco is unique in that all companies are 100% internally owned, giving us full control over processes, priorities, and the entire operation. With over 240 Production staff, resources can be drawn on as needed to meet project deadlines. The scale of our technology allows for cloud sharing of models and real-time project data allowing all offices to collaborate seamlessly.



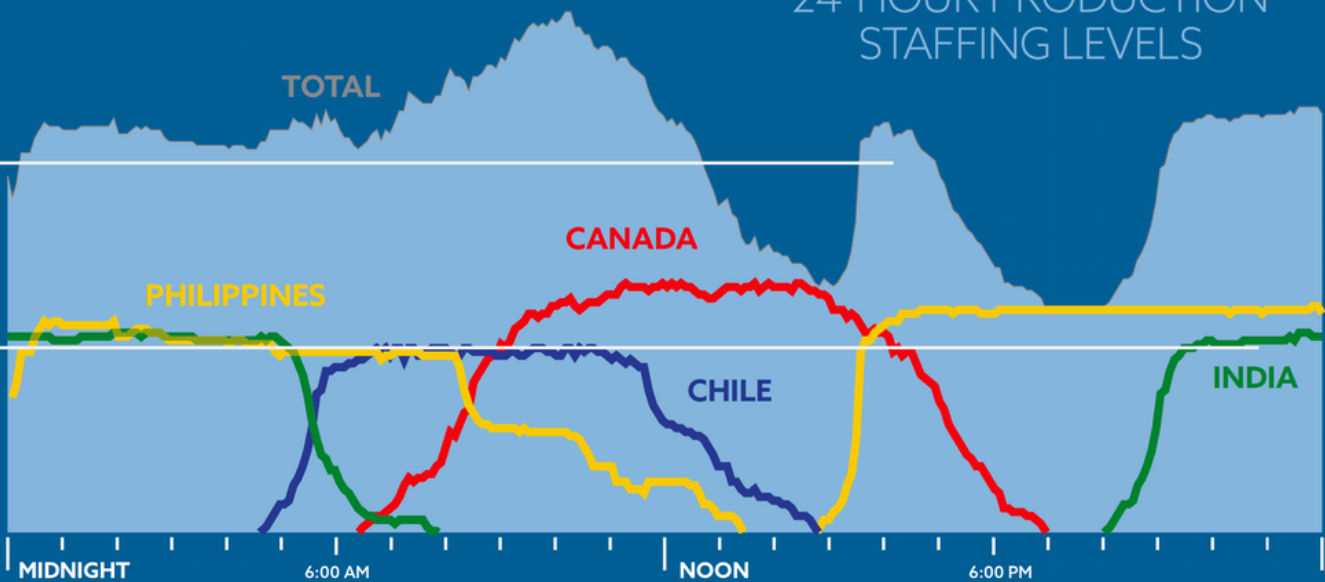
MANAGEMENT PRODUCTION PRODUCTION MANAGEMENT

150 AT WORK

100 AT WORK

50 AT WORK

24-HOUR PRODUCTION STAFFING LEVELS





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DOWCO is a full-breadth Mass Timber Detailer equipped to support developers, specifiers, and builder clients with the full range of Mass Timber Pre-construction Solutions.



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Scan to learn more, or visit dowco.com