

DGS Technical services, Inc.

#### **DGS Technical Services Inc.**

1875 Big Timber Road Suite: A (East Entrance), Elgin, IL -60123 Tel. (630)539-8200, Extn.5204, 5202 Fax. (630)582-3700

#### **DGS Technical Services Inc. UK Ltd.**

ID Center, Room G2 Lathkill House, RTC Business Park, London Road, Derby – DE24 8UP, United Kingdom. Technical Services: 630-539-8200 Extn.5204, 5202

#### **DGS Technical Services Canada Inc.**

300 Terry Fox Drive, Unit 500, Kanata, Ontario, K2K 0E3. Tel. 613 457 5044

#### **DGS Technical Services Pvt. Ltd**

#8-2-700/A, 3rd Floor, Shiv Shakthi Towers, Road No.12, Banjara Hills, Hyderabad – 500034. Andhra Pradesh, India.





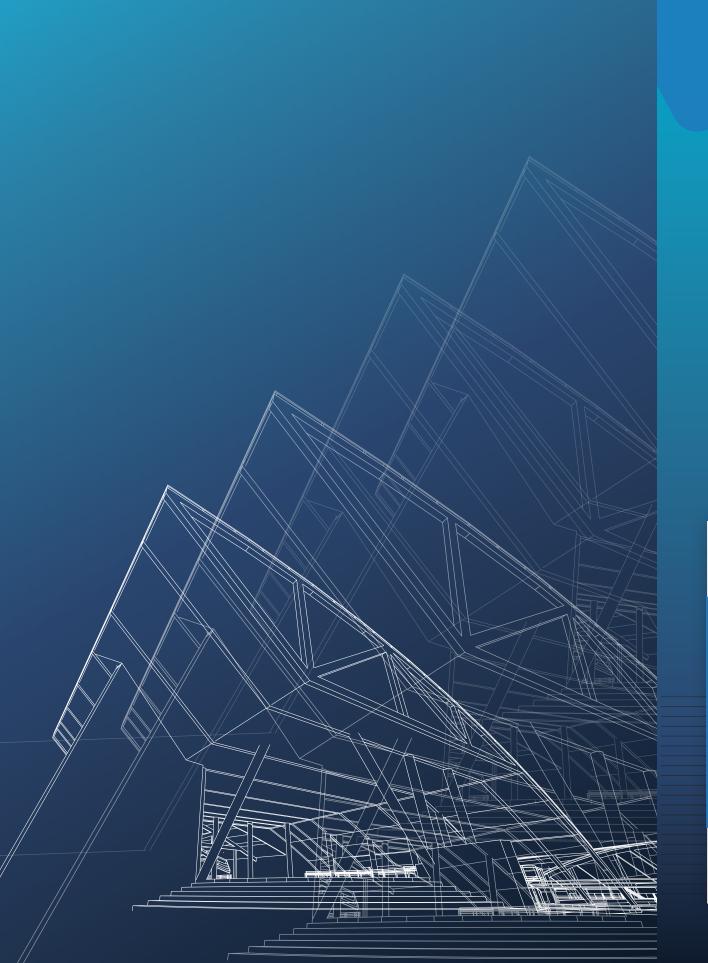


## **About us**

- DGS is a US based company headquartered in Elgin IL, incorporated in 2004 with a focus on providing engineering, detailing & technical services to USA & Canadian Markets. Keeping in view of growing demand for detailing and infrastructure requirments, we have been acquiring firms globally.
- DGS is an ISO 9001:2015 certified by TUV with ANAB accreditation and been offering its clientele quality engineering services over the last 19 plus years.
   We are members of AISC and NISD with QPP Certification. DGS has developed in-house project management tool DART (DGS Activity Report Tracker) through which all projects are monitored for quality and on schedule deliveries.
   We have quality management teams in all the locations.
- We provide excellent value proposition to our customers by following well defined and systematic detailing processes, adhering to strict quality and defined schedules. Each assignment is handled by team headed by a project manager along with checkers, modelers, editors and detailers.
- DGS has developed its own in-house training manual and training calendar
  to ensure that consistency of presentation for all our drawings is achieved. All
  employees at DGS undergo a rigorous and mandatory training program of 45
  hours every year so that they are able to handle challenging and complex
  structures.









# **Structural Engineering Services**







- Connection Design Services
- Building Design
- Virtual Construction and Bid Permits
- Industrial Platform Design
- Pipe Supports and Pipe Stress Analysis
- Estimation Take-Off
- Stair and Handrail Design
- Value Engineering
- Preliminary Design
- BIM Services



Design services at DGS is motivated to cater complete structural offerings to become one stop shop for the Construction Industry. Professional Engineer with decades of fabrication, detailing and design experience to add serious value proportion.

Our design models can be used for detailing practices and our QMS and DART (DGS activity report tracker) would enable us to efficiently manage quality, cost and schedules. Our collaborations with industry leaders gained reasonable engineering market share in very short period of time. Our processes are system integrated with fabrication and detailing.

We use advanced methods and software to meet the current codes and standards. Our in-house engineers are trained on best AISC, CSA fabrication practices and governing codes. Our proprietary tools gains edge on economy, constructability, codal requirements into our designs at much quick turn around and affordable costs to the customer.



- Silo Design
- FEA/FEM Analysis
- Erection Engineering and Construction
- Support Services
- Shoring Analysis Bridge
- Detailing Services
- Bundled Services
- Dynamic Analysis (Protective Structures)
- BOM for Joist & Deck Manufacturers





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## **Steel Detailing**

Services



DGS Technical services Inc., was incorporated in 2004 with a clear focus on providing Detailing & allied Engineering services, in the area of structural steel & related construction support services.

We are pioneers in client specific Detailing Automation Solutions. Our In-house R&D team works on customization of CAD tools (Tekla, SDS & others) for some of our large fabshops, based on client specific fabrication & Erection requirements.

We have been growing year on year since last 19 years, with client specific learning, helping us gain client confidence along with long term commitments & service contracts. This client specific approach in our project processes and business engagement models has helped our clients enormously in terms of mutual reliability and flexibility in terms of schedule and execution capabilities. Last couple of years we have grown new heights with new advancement in the market and adding skilled engineer to our work force across 14 locations including USA, UK, Canada, India & Philippines. We are serving niche requirements of more than 200 plus clients in the North American construction markets, consisting of General Contractors, Fabricators, Consulting firms, Architects, Professional Engineering firms, etc.





### Domain expertise

We work on Warehouses, Fulfillment Centers, Distribution Centers, High Rise Buildings, Hospitals, Churches, Shopping Malls, Parking structures, Schools and Colleges, Convention centers, Power Plants, Petrochemical Refineries, Aircraft hangers, Arenas, Bridges and other infrastructure projects.



 Our expertise in Steel Detailing services include

- Structural & Miscellaneous Steel Detailing
- Bridge Detailing
- Connection Design and Stamping
- BIM Services
- Estimation Support Services
- Client Specific Detailing Automation
- Decking Support & detailing
- Stick Modeling & takeoff









# **Connection Design** *Services*

- DGS has been offering connection design services to various fabricators and contractors from USA / Canada and other countries.
- We have team of expert connection engineers headed by PE's, who can provide cost effective connection with calculation and stamping. DGS has capability to provide PE / SE registered stamping for all 50 States of USA and all Provinces of Canada.





- Commercial and Residential Buildings
- Warehouses / Fulfillment / IT Buildings
- Power plants
- Steel plants
- Cement plants
- Oil, Gas & Petrochemicals
- Chemical plants
- Architectural buildings
- Schools
- Stadiums
- Bridges

# Our Typical Connection design Services includes:

- Connection sketches
- Designs per AISC, BIS, BS standards and Eurocode
- PE/SE Stampings
- Detailed calculations, complete text and output in PDF, MS word or MS excel (with supporting calculations, tables and sketches)
- Shear connections
- Beam to Column shear connections
- Beam to Beam shear connections
- Moment connections
- Horizontal brace connections
- Vertical brace connections
- Heavy diagonal brace connections
- Complex truss connections
- Column Splice connections
- Beam Splice connections
- Stair Design and Stair connections
- Handrail design and connections









# **Bridge Detailing**

Services



- Accomplished, from new Pedestrian/Foot bridges, to geometrically complex multi span Plate Girder bridges.
- ◆ Proficiency in Rail Road, Road Over, Beam Bridges, Truss Bridges, Tied Arch, Cable Stayed Bridge to repair work (Retrofit) on Large bridges, are different category of bridges DGS has worked on.
- ☆ Approach towards understanding the Bridge Geometry
- ☆ Adherence to AASHTO LRFD, AREMA and other Standards
- ☆ Proficient with 12+ DOT's
- □ Unique processes & workflow to detail complex projects
- Understanding & Identification of
  - Bridge Component
  - Expansion Joints Components
  - Standard Weld & Weld procedures
  - Various Coating Systems







- DGS Inc. is a Customer Centric and Consistent Performance organization Providing Detailing Services for Any Bridge Type throughout the United States and Canada. DGS Inc is a large and reputable 3D Modeling, Detailing, and Pre-Construction services provider. Our production team includes dedicated bridge squads working on bridges to make your bridge project a success. Teams at DGS are highly skilled and process oriented which enhances our ability further to deliver what is expected from our end.
- Our teams are proficient with 12+ DOTs (Department of Transportation) specifications and are well versed of the Standards, Templates, Buy Outs and Representations that the Steel Bridge industry specifically requires.

#### Types of Bridges Detailed:

- Plate Girder Bridges
- Truss Bridges
- Pedestrian Bridges
- Tree Type Truss Bridges
- Beam Bridges

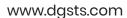


## Bridge Components Detailed:

- Expansion Joints
- Railings
- Bearings
- Other Bridge Misc items

"Every aspect of your bridge job is met with high level of attention to detail and efficiency to ensure it is delivered to your standards and specifications, and delivered on time, every time." - Team DGS







## **Estimodeling**

Services





#### What is Estimodeling?

in order to achieve maximum productivity

and cost savings for your business.

Estimodeling is the process of quickly creating a model for the purposes of generating highly accurate material quantities as well as detailed labor and cost data for use in project estimating.

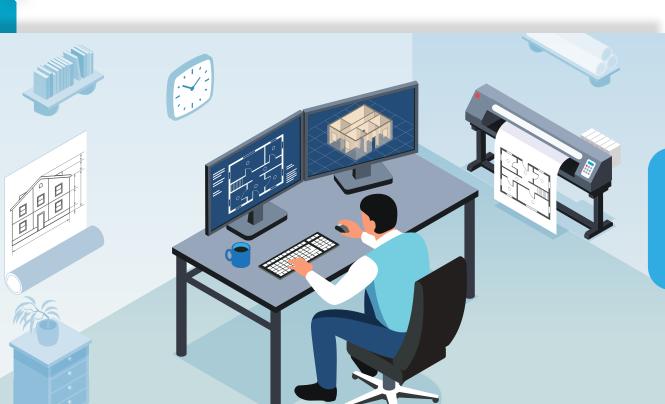
# Why should I be Estimodeling? Because it:

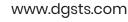
- Creates quicker take-offs than traditional estimating methods with added-value of data-rich, constructible models
- Includes 3D model as part of a bid package
- Enables export to all major MIS systems with NO manual entry
- Allows you to use the model for additional project requirements like 'bid reference' IFC file to track future changes



### What is Estimodeling?

- Detailer will Create detailed material take-offs for quantities and tonnage to produce a more accurate bid for fabricators & Erector
- Find potential problem earlier to get resolutions to design questions faster
- Awarded jobs already have a model started and can be kept for design change comparison through the project lifecycle
- Import a Vector PDF into the model for faster Estimating
- Quickly create an as-built model for highly accurate quantities and preliminary fittings for leaner takeoff
- Fabricator can Pass an already created model to detailers once the bid is won (saving time and money)
- Import directly into Trimble's FabSuite solution or other MRP/MIS software for calculating labor costs
- Rapidly produce a preliminary material list for ordering steel
- Send the client a bid along with a 3D PDF model which helps sell your business
- Bolt counts and field welds quantities become hours, this helps for erectors
- Weights and center of gravity plan erector lifts
- Check crane placement and create site layout drawings for erectors
- A highly accurate export to Steel Erection Bid Wizard





# **Mechanical Engineering**

Services

#### **Typical Service Offerings:**

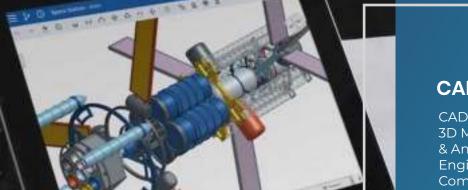
DGS Technical Services Inc. has a pragmatic approach to problem solving, proven offshore delivery model and global presence that ensures close proximity to our customers make us the preferred engineering services partner for clients across the world.



#### **Industries Served:**

- 1. Power & Energy
- 2. Oil & Gas
- 3. Heavy Engineering
- 4. Transportation and Railroad
- 5. Automotive
- 6. Aerospace
- 7. Consumer goods/Hi-Tech





#### CAD/CAM/CAE Services

CAD Conversion, Legacy Data Migration, 3D Modeling, Detailing, Product Design & Analysis, Re-engineering, Reverse Engineering, Finite Element Analysis (FEA), Computational Fluid Dynamics (CFD).

#### Value Analysis and Value Engineering (VAVE) Service

Brain stormed Idea generation, New Concepts generation, Significant Product Cost reduction, Bench marking competitor's design and validated results through Optimization.

#### Manufacturing Systems Design & Engineering Services

Machine Design, NC Code Generation, Should Cost Analysis, Assembly Engineering, Jigs and Fixtures Design, Mold & Die Tool Design, Press Tool Design, Non-Standard Equipment Design and Design of Test Rigs.

# Electrical and Embedded Services

- 1. Schematics and Wire Harness
- 2. PLC and HMI Design & Development
- 3. Instrument and Control Systems Design
- 4. Embedded Systems Design
- 5. PCB Circuit Diagrams

#### PDM/PLM Services

- 1. Drawing and Document Management
- 2. Revision and Version Management
- 3. Configuration Management
- 4. Workflow Control

#### **Web Design and Development**

DGSTS covers web-based IT solutions including Web Design, Web Applications and e-Commerce solutions.

- 1. Web Design (Website Layout, Website Design, Responsive Layouts, html Coding & CSS Styles)
- 2. Web Applications (Content Management Systems, Custom Web Portals, ASP .Net, PHP & ASP)
- 3. e-Commerce (Online Storefronts, Custom Shopping Carts, Open Source PHP & .Net Commerce Templates)

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## **R&D @ DGSTS**

### Services





 We believe that adaptation to latest technological advancements and being innovative are the key factors to deliver on time, quality detailing services with a lasting relationship.

At DGS, based on our learning from past 15 years in the business, we are dedicated to capture all the client specific major & minor productive needs. We have started our own R&D department to fulfill growing needs of our highly satisfied clients to cater on Software & Process Customization.

 We have a dedicated R&D team working side by side on detailing and design teams to capture the new learnings, client specific shop standards and drawing requirements.
 We work on Tekla customization to reduce repetitive errors and schedule overruns. With the new learning being captured, there is lesser learning curves and inter changeability of teams based on client's schedules, resulting in Timely Quality Drawings.  We have internally build an online software for tracking all our detailing activities called DART (DGS Activity Reporting & Tracking), where we can have a complete control on every project we work on.

 At DGS R&D, there is always a solution for all your customized detailing requirements.

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# Robotic Fabrication Automation







- DGS maintains the competitive edge, across the detailing industry, by seamlessly integrating state-of the art machinery with customized tools like automated API's for TEKLA, SDS2 & other software.
- Seamlessly Integrating of output for fabricators using robotic machines & related software.
- Customized integration of client specific estimation, structural design, detailing packages & manufacturing files.



Automating the fabrication process can deliver numerous benefits and one can reap significant return on investment by automating the production.

R&D team at DGS has a vast experience with large fabricators who use automation throughout their shop floors Including Zeman Pro-FIT software to export DSTV tool, NC and XML file.

The fabrication-driven set-up options available in SDS2 & Tekla along with DGS's in-house automated tools, help fabricators take the automation to the next level.

## ◆ Tekla & SDS2 Advantages

- Fabrication-driven set-up options drive adaptability and flexibility in fabrication plans.
- Seamless integration with robotic machines improves overall efficiency & material handling.
- DGS helps in the integration of Tekla & SDS2 with the robotic machines for seamless plugins by leveraging capacity, man hours and quantity.

### How Robotic Automation is Proving Helpful

- Helps in increasing productivity while reducing operational costs
- Faster turnaround, improved schedules
- Quality adherence & high precision throughput
- Heavy members can be handled with ease enabling safe work environment
- Customization of any input/output files can be achieved



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## **DGS Awards**

DGS is not an association that is only credited by the customers but also awarded for its best services by authorized bodies. We have been recognized for the quality services provided and the customer relations maintained.



ekla BIM Award



SDS/2 Solid Steel Competition Winner Trophy



Tekla Appreciation
Certificate



## **DGS Accolades**

DGS is an active associate in the punctual completion of task, standardized quality of work and expert knowledge in the field. We have the prestigious accolades of various authentic certifications.



Active Member - NISD



Active Member - AISC



ISO-TUV



Quality Procedure Program-NISD

## **DGS Testimonials**

I would like to thank you for the job very well done on this project. This was particularly impressive given the challenging schedule and demands on this project that you accommodated. I know you all worked hard and long hours on it, and it is very much appreciated. This is a project we can all be proud of. There were 5 tower cranes on this project! I believe we were one of the only Contractors that met the schedule and it will pay off long term for our Companies and Employees in reputation and repeat work. I look forward to the many great things we will do together. Again, thank you for the hard work and an excellent job by all of your Team.

#### Gary. G

President

DGS has been an incredible asset to us, they are timely, professional, organized and responsive to our needs. Their methodical approach to RFIS, RFCs' and Transmittals has helped us enormously. We appreciate RFIS that show 1/8" and 1/16" deviations from corresponding drawings as it just reinforces the fact that they are paying attention to the "details" as "detailers" are supposed to do. We appreciate the timely support from Mr Soma and Mr. Mohammed Arif. We value our relationship with DGS.

#### Fermin

Senior Project <u>Manager</u>

DGS provides us with a level of assurance that is unmatched in the detailing industry. Between accuracy, accountability, and transparency- DGS is an unbelievably reliable part of our team that contributes directly to the success of our business.

#### David

Engineering Manager

