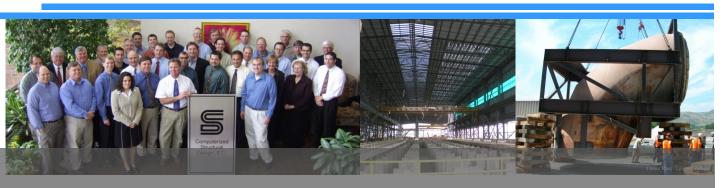
### 🌣 🤄 Company

Computerized Structural Design, S.C. (CSD) is a nationally known and respected structural engineering firm headquartered in Milwaukee, Wisconsin. Since 1968, CSD has continued to provide professional structural engineering and building design services to our clients.

CSD offers a unique combination of experience and expertise, a combination that yields practical and innovative structural solutions. This means designing a project that achieves your goals and provides a cost effective solution to your problems. Whether you require a design for a steel connection or precast building, a high rise or a foundation, a vibration analysis or a crane building, CSD can assist you in making the right choices, from the start of your project to completion.



#### 🛚 🔄 Industry Leadership

CSD sets the standard for engineering and design, developed from years of experience, education, innovation, and dedication to our profession. Our goal is to produce a quality product that satisfies our clients' needs.





Computerized Structural Design, S.C.

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Computerized Structural Design, S.C.





# Structural Engineering for Industrial Facilities



• Offering Expertise in Structural Engineering Since 1968

## >> Mill Buildings

Mill buildings require a special level of design expertise and understanding. The rigors of daily operation in a mill building exceed that of a typical manufacturing facility. The combination of large loads (overhead cranes, process equipment, etc.), dynamic loads, fatigue concerns, and large scale buildings demand a unique design solution. CSD has built a reputation for providing practical mill building design solutions. We also have the experience to provide modifications, repairs, and field fixes to keep these facilities operational.

## >>Industrial Buildings

CSD provides wide ranging design capabilities for new industrial facilities and the modification of existing industrial facilities. The requirements for each project are unique, recognizing that the building structure must accommodate and support the specific industrial process and associated equipment contained within. We also recognize the importance of a dependable and economical design solution for each project. Our awareness of these aspects make us responsive to the real needs of our clients.

# >>Equipment Foundations

The successful performance of equipment demands attention to the design of the foundation that supports it. CSD has designed equipment foundations to meet this demand. The following issues are of heightened concern to equipment foundations: design for both static and dynamic loadings, detailed consideration of soil/ structure interaction and prediction of both absolute and relative long term settlements. As our experience demonstrates, successful designs require close collaboration among the Owner, the equipment supplier, the geotechnical engineer and CSD.



## 📴 📴 Registration

CSD is professionally licensed in all 50 states and the District of Columbia.

## 🐎 蹄 Expertise

#### Education

CSD employees routinely possess a Masters or PhD degree in structural engineering. This advanced level of education coupled with our emphasis on practical applications helps us to better serve you on your industrial facility project.

#### **Professional Involvement**

- American Institute of Steel Construction (AISC)
- American Concrete Institute (ACI)
- Association for Iron and Steel Technology (AIST)
- American Iron and Steel Institute (AISI)
- Precast/Prestressed Concrete Institute (PCI)

## Other Engineering Services to Industry

- Design for Retrofit, Expansion, and Modification
- Structural Design for Crane Runway Systems
  - Independent crane runway supporting structures
  - Crane runway additions to existing buildings
  - Crane capacity upgrades in existing buildings
- Analysis and Design for Fatigue
- Structural Design of Large Ductwork
- Development and Administration of Inspection Programs
- Design of Bins, Silos, Tanks and Associated Supports
- Vibration Analysis
- Structural Design of Free Standing Racks for Automated Storage and Retrieval Systems (ASRS)
- Structural Design of Rack Supported Buildings
- Structural Design of Airplane Hangars
- Architectural Design
- Site Planning and Facility Layout

## • 😁 Publications & Industry Involvement

### Publications

- AIST Technical Report No. 13—Guide for the Design and Construction of Mill Buildings
- AISC Design Guide 7—Industrial Buildings
- AISC Design Guides 1, 3, and 10
- Authored and Lectured Various Technical Articles on Industrial Facilities

### Involvement

- AIST Mill Buildings Committee
- AISC Committee on Specifications
- AISC Task Committee for Industrial and
  Non-Industrial Buildings Committee
- AISC Task Committee 6—Connection Design
- AISC Task Committee 9—Seismic Design
- AISC Manual and Seismic Manual Committees
- AISC Code of Standard Practice Committee