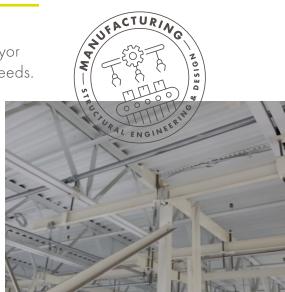
AMERISOURCEBERGEN WAREHOUSES

AMERISOURCEBERGEN, CHESTERBROOK, PA BUILDING COMPONENTS

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Structural design of existing building facilities new suspended conveyor systems and mechanical platforms across eight states with varying needs.



CHALLENGE

AmerisourceBergen helps wholesale and specialty distribution services ensure that crucial medications efficiently, reliably and securely reach their destinations every day. Additionally, they help pharmaceutical manufacturers bring their products to market – and assist with each step from pre-commercial and clinical trial to broad market availability and patient adherence. With warehouses strategically located across the US, AmerisourceBergen houses a huge quantity of the nation's pharmaceutical drugs for distribution. As their capacity for inventory and shipping expanded, so did their needs for updating their existing warehouses throughout the country. AmerisourceBergen's needed a partner to help ensure their warehouses could handle the increased needs by engineering new systems for the existing conveyor systems and mechanical platforms in Florida, Texas, Pennsylvania, Illinois, Kansas, Utah, California and Tennessee to handle the increased capacity.

SOLUTION

All locations required an analysis of their existing buildings to confirm that new loads being applied to either an existing roof or mezzanine framing could support the new conveyor and platform loads. The Tamarack Grove team studied existing as-built structural plans and then worked with the conveyor manufacturing shop drawings that conveyed what the new support loads were and make sure that structurally speaking the existing buildings could support them. We provided detailed reports to their facilities managers on what needed to happen at each location. In some locations, where new equipment or platforms were being installed, our team prepared new code analysis on exits and egress throughout the building to make sure that they were complying to the local AHJ building codes. Tamarack Grove's experience working with multi-site, multi-state locations allowed us to complete the project ahead of schedule, saving AmerisourceBergen valuable time and money by being able to get back to distribution quickly.

TEAM MEMBERS

SERVICES

ANALYSIS

BRIAN SIELAFF, M.S.C.E., S.E., P.E., P. ENG. CEO

DOUG HARDIN, P.E. Director of Engineering, Principal STRUCTURAL SYSTEM EVALUATION STRUCTU<u>RAL DESIGN &</u> VALUE ENGINEERING STRUCTURAL SITE VISIT CONSTRUCTION ADMINISTRATION STRUCTURAL BIM/REVIT

TAMARACK GROVE

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THE ABC'S OF SITE SIGNAGE

Often an afterthought, many companies don't consider the marketing anchor of their new venture — signage — until substantial completion. That oversight can result in significant financial loss.



CHALLENGES

Sign companies are faced with shifting codes, ordinances, and regional and jurisdictional constraints when designing and erecting signage for their clients. Varying jurisdictional requirements; ordinances; geographical issues including mountainous areas; or regions with high wind loads are some of the inherent challenges that can hamper designing and erecting project signage. Every day without a properly installed and compliant sign can translate into lost revenue.

SOLUTIONS

New businesses need signage to attract clients, let people know they are open for business, and to reinforce brand recognition. Municipalities have sign ordinances that must be followed regardless of the type of signage — ground, monument, multi-tenant, blade, pylon, semi-permanent, banners, or canopies — and rules and restrictions relating to design and installation prevail. Location of signage in restricted or historical zones as well as specifications or restrictions of certain materials may limit designs and, subsequently, installations.

In order to avoid permitting delays, non-compliant signage design, and installation issues, signage companies can benefit substantially by partnering with an experienced engineering firm to bring the client's signage vision to life. A seasoned engineer can manage the multiude of hurdles to satisfy local and regional codes and ordinances and that are approved by the prevailing jurisdictional authority upon initial review.

Tamarack Grove Engineering (TGE) is experienced working alongside sign companies to navigate and prevent common pitfalls. Licensed in all 50 states, TGE helps clients design signage that meets: – Local codes and ordinances

COMMERC

- Geographical constraints including mountainous terrain or for high wind loads
- Historical context satisfying regulations in regard to historical significance

TGE provides engineering design for all of the primary sign products traditionally used in commercial and retail industries. "We work with Tamarack Grove's highly-responsive team to navigate all of the permitting and license requirements in any location. They do the research and then handle the design approval process from startto-finish for us," said long-time TGE client John Yarnell of Trademark Design & Fabrication. "TGE works with our in-house engineers to review and approve drawings or to design complex signage that is compliant for the area where we are building."

Don't risk revenue loss if your signage is rejected by a local permitting authority. "As true partners, TGE works with signage designers from coast-to-coast facilitating region-specific engineering that fulfills all local codes and mandates, ultimately saving you time and money," said TGE's Doug Hardin, PE.

TEAM MEMBERS

DOUG HARDIN, PE Director of Engineering BRENDON COLLINS, EI Project Engineer

SERVICES

DESIGN REVIEW

ENGINEERING DESIGN

CODE REVIEW & COMPLIANCE

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