

ARCHITECTURE

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Industrial Platform

Fall/Winter 2003

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Aramark Uniform Services Builds Chicago Plant

History Repeats Itself



Epstein recently provided Aramark Uniform Services with architectural and engineering services for their new laundry processing plant located on Chicago's south side.

Aramark is a world leader in managed services including dining and catering, custodial and housekeeping support as well as public safety equipment and apparel and uniform and career apparel. Epstein provided architectural design plus civil, MEP, and structural engineering design services for a 150,000 square foot laundry facility, including a 30,000 square foot second story and an 11,000 square foot stand-alone vehicle maintenance facility.

One challenge posed by the existing site was the presence of previous foundations. Some of the foundations came from the former International Amphitheatre, also designed and built by Epstein back in 1934. Epstein's engineers handled this challenge by using these historic foundations and developing a

special shallow caisson system to avoid conflicts with these existing foundations.

The building is a precast concrete structure with a roofing and insulation system designed specifically to withstand the naturally high humidity conditions. The project required the coordination of various owner-selected consultants to accommodate appropriate equipment including a hanging material handling sortation system for soiled and clean laundry items. Epstein's engineering

design provided the infrastructure for the water conditioning, waste water treatment and electrical systems designed by the owner's consultants.

Aramark's latest facility is currently under construction and slated for a late 2003 completion. History repeats itself as Epstein's architects and engineers develop solutions for a current client while revisiting a project from the past.



Keebler® Expands Chicago Manufacturing Facility

The Hollow Tree Grows



Keebler®, the well-known cookie and snack manufacturer and division of Kellogg USA®, recently expanded its Chicago ice cream cone manufacturing plant located in the Pullman district on the south side of the city. Epstein provided architectural design and structural, civil, and mechanical/electrical/plumbing engineering services plus process engineering design assistance for this expanded facility. A new 115,000 square foot addition links the existing 72,000 square foot food plant with an existing 76,000 square foot steel fabrication shop which was converted into a food warehouse.

The result is a 264,000 square foot complex on a 13-acre site. Additional car and truck parking and maneuvering areas were developed to handle increased truck movements and the larger size of today's trucks.

The expansion was completed earlier this year and enables Keebler® to continue growing to maximize sales in one of its core markets.



Medline's Distribution Network Grows

Meeting an Industry's Needs

Medline Industries, Inc. is America's largest privately held national manufacturer and distributor of health care supplies and services. Epstein is working closely with Medline to expand their distribution network to meet the growing needs of the healthcare industry.

Epstein provided Medline with architectural and engineering expertise plus added services including due diligence, site selection assistance (working closely with Medline's real estate service providers), land purchase assistance and negotiations with local authorities. These combined services resulted in a streamlined, cost-effective process to obtain and prepare sites for facility expansions and new distribution centers.

Medline's distribution centers were designed and built using basic, proven construction techniques and materials. The end result: economical facilities and long-term building performance. Tilt-up concrete wall panels constructed with casting beds enabled the pouring of the finished slab floor after the walls and roof were erected. This allowed the slab to be poured in a controlled environment, satisfying Medline's requirement for a high-quality floor. In the unlikely event of fire, building ventilation systems also are used for smoke evacuation systems, eliminating the need for smoke vents and reducing overall costs.

The San Antonio facility was completed in less than six months after ground was broken. Challenges ranging from site changes to



record rainfall were overcome within the fixed contractor schedule and budget through contingency planning, expediting of critical path elements and subcontractor coordination. Today, Epstein continues to work closely with Medline on additional facilities to support Medline as one of the nation's leading health care products providers.

A Manager's Manager

The Art of Project Management

Michael Blumenthal truly is a manager's manager. He is a project management whiz and was the obvious choice when Epstein created a dedicated position to oversee all project management efforts. With project teams often increasing in size and complexity for all types and sizes of projects, his expertise became key to keeping Epstein's diverse industrial projects on track.

Mike, a registered professional engineer, began his career at Epstein nearly two decades ago. Today he has more than 30 years of project management experience. With a successful track record managing the firm's mechanical, electrical and plumbing disciplines plus his strong background in facility design for multiple distribution centers, Mike was the logical choice to head Epstein's coordinated management efforts. Today he oversees project management for all types and sizes of industrial, commercial and public facilities including distribution centers and food processing plants.

Mike notes that many of the elements that are key to successful project management are sometimes overlooked due to their seeming simplicity. "Many elements of successful project management seem so much like 'stating the obvious' that a number of managers believe these details will see to themselves," notes Mike. "Our approach has been so successful because we leave nothing to chance and coordinate all facets of a project right from the start."

Mike begins organizing a project with a well-defined scope of work. Specific activities are defined by discipline. A schedule is developed based upon the various activities in that scope of work. An organization chart showing communication lines is prepared and distributed to all key players. Budgets are developed and monitored regularly. Fee-specific cash flow projections are updated monthly to assist with staffing needs. Staffing projections are adjusted bi-weekly per job classifications to address a project's dynamics.



Mike emphasizes that ongoing communication is the key to maintaining the client's budgets and schedules. Bi-weekly corporate operations meetings are held to monitor project milestones and optimal staffing requirements. Weekly project coordination meetings are held with the project team

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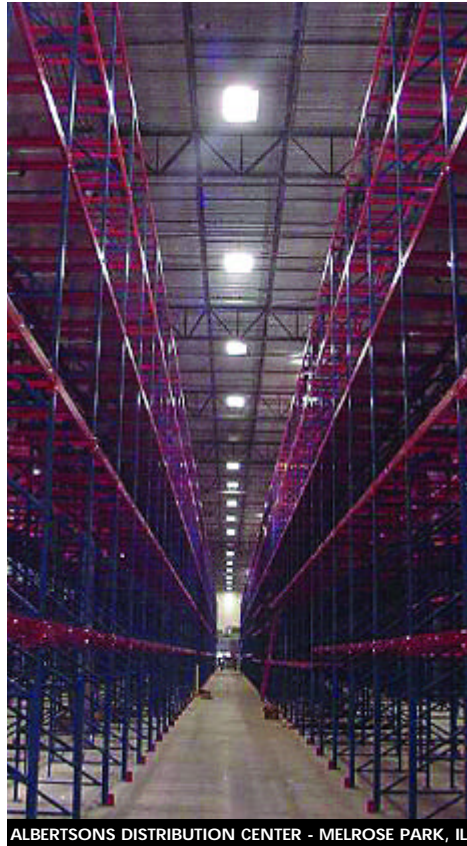
Energy Efficiency: Solutions and Savings

The Whole is Greater than the Sum of the Parts

Epstein's architects and engineers are always aware that today's buildings utilize an extraordinary share of energy. They develop designs to reduce energy use and costs without sacrificing the reliability of the utility system or the integrity or purpose of the structure. From electricity and lighting to heating and air conditioning, Epstein's designers take a holistic approach to a distribution center or manufacturing facility, looking at it as an integrated system rather than a collection of individual parts.

Epstein's electrical engineers successfully have used cost-effective lighting retrofits in various distribution centers. New T-5 HO fluorescent fixtures are being utilized more regularly as an alternative to HID (High Intensity Discharge) lighting. A properly designed T-5 lighting system can provide the same level of illumination as metal halide lights but at 20% less operational cost. The T-5 fixtures also can be used with photocells and motion sensors to turn on only when someone enters the area and turn off after they leave and take advantage of natural light from skylights, external windows, dock doors etc. And unlike metal halide or high pressure sodium lights which require a lamp cool down and re-strike time, the T-5 fluorescent fixtures are at maximum illumination at once.

When retrofitting an existing distribution center, Epstein's electrical engineers survey the existing facility and re-engineer the



ALBERTSONS DISTRIBUTION CENTER - MELROSE PARK, IL

lighting layout. They select the appropriate fixtures, lamp and reflector types to provide the proper level of illumination at the floor. Phased installation plans are developed to minimize operational disruptions.

Efficient lighting is just one form of cost effective energy resource management. Watch future issues of *Industrial Platform* for a look at other energy sources and how those can be managed and utilized effectively.

Blumenthal

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to enhance communications. A project directory offers important contact information to ensure that staff can be located readily. Finally, project centers are often established on larger projects to enhance team communication.

"Coordination and communication are key to keeping projects on track," Mike concluded. "If you manage these details right from the start, you are infinitely more likely to manage any challenges that arise so that the client's budget and schedule are met and the project is delivered successfully."

Epstein Contacts

John Patelski

PRESIDENT

312.429.8003

Andrea Velasquez

VICE PRESIDENT

312.429.8006

Dave Mead

VICE PRESIDENT

312.429.8004

Epstein Locations

Chicago

600 West Fulton Street
Chicago, Illinois
60661-1199
T: 312.454.9100
F: 312.559.1217

Los Angeles

10960 Wilshire Boulevard
Suite 900
Los Angeles, California
90024-3702
T: 310.473.5358
F: 310.473.4908

San Antonio

The Travis Building
405 North St. Mary's
Suite 110
San Antonio, Texas
78205
T: 210.828.6699
F: 210.930.4027

Poland

ul. Kruczkowskiego 8
00-380 Warszawa, Poland
T: 48.22.525.0.300
F: 48.22.525.0.301

Israel

298 Bar-Lev Rd.
Tel Aviv, Israel
61440
T: 011.972.3.739.6722
F: 011.972.3.739.6725

www.epstein-isi.com