



Solutions

SUMMER 2011

PRESIDENT'S LETTER

Welcome to the second issue of ESI's Solutions newsletter. Here you will find key industry information and useful project planning and facility maintenance tools for use at your facilities.

Advancements in technology along with a focus on being green have brought many new insights to how we do business. The key to being successful is to be prepared to make adjustments to your approach and operations at the right times, while focusing on improving customer service.

At ESI, we strive to provide you with the most innovative, comprehensive design and construction management methodologies in order to most effectively address your present project needs and allow for future business growth.

If you are contemplating a greenfield site or a retrofit to your existing facility call on us to be your design-build partner. Together, we'll find the right solutions to best fit your needs.



Brad Barke

Cold storage, food companies warm to LEED


Leaders lead by example. It's not surprising that temperature-controlled food processors, distributors and warehouse operators are considering the utmost in sustainable, green practices and perhaps LEED certification for their new or renovated buildings.

The U.S. Green Building Council (USGBC) established LEED in 2000 as a third-party certification program and the national benchmark for the design, construction and operation of high-performance green buildings and neighborhoods. LEED certification offers



Light monitors illuminate office space below.

validation of a project's green features and verifies that the building is operating exactly as designed. Is LEED certification possible for your next construction project? Let's examine the issue.


Although LEED, since its inception, has expanded to several building sectors, it started with office buildings — not cold storage warehouses. And although 

You recycle. We do too.

Plastic. Metals. Paper. Did you know that ESI Constructors believes in recycling at the construction job site — just like you do at home?

Actually, you might not believe how much has changed in this aspect of construction waste management. ESI recently demolished a building in Kansas where

contractors recovered and recycled nearly 100 percent of all materials. Although they could not recycle the roof insulation, they were able to recover the roof membrane, to be reused as tent material.

Demolition and construction always create debris. For years, contractors would either haul waste material to 

LEED

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the food industry has welcomed LEED-certified dry food plants and even its first frozen food operation (a Lamb-Weston sweet potato plant), USGBC has not released LEED certification guidelines for refrigerated warehouses.

ESI Design Services (ESI) is now on track to complete one of the industry's first LEED-certified multi-temperature warehouses.



ESI Design

This Texas project had to overcome some difficult prerequisite obstacles such as requesting the USGBC to issue a special compliance ruling to exempt the project from certain energy reduction and air exchange performance levels required for regular office building projects.

ESI has more than 15 years experience conserving energy for clients and already designs some of the industry's most environmentally friendly and energy efficient

food plants and warehouses. This encompasses everything from the latest heat reflecting roofing materials to wastewater reclaim technology — to creative ways of using highly efficient low temperature ammonia refrigeration systems to condition ambient air in the warehouse and main office areas. ESI stays abreast of new and emerging technologies — from high bay fluorescent or LED lighting and variable frequency drives to alternative forklift fuel sources and solar panels. We can also assist our clients to secure federal, state and local energy tax credits and incentives for green technology implementation.

If you are planning a construction project and are curious about possible LEED certification, ESI can prepare a strategic plan for any building that (1) examines potential LEED points, (2) helps the owner determine how practical it is to achieve certification and (3) delineates the potential costs. ■

By Tim Gibbons

Gibbons is VP of ESI Design Services and has 15 years of experience in the design and construction of foodservice facilities.

What's next? See our 3RD quarter look at Site Security.

Four your CONSIDERATION Considering a greenfield site? Take a fresh look at ...

... **SIZING.** Most buyers identify immediate square footage needs but don't consider extra land needed for daily traffic flow, parking, stormwater management, buffer space or future growth. Acquire enough land and plan for growth.

... **THE PROPERTY.** Do not select property if its shape makes any portion unusable. Optimum properties have some degree of natural grade drop with ample acreage for stormwater runoff. Good communal planning of stormwater management and storm sewer connections can save millions. Also consider adjoining properties and their uses. Is an industrial neighbor so close that his smoke — or other by-products — could affect your property conditions? Finally, select a site that is compliant with your refrigeration system. Certain hazardous material regulations affect locations for buildings with ammonia refrigeration.

... **TRANSPORTATION.** Consider supply chain alternatives because every extra truck travel mile adds to costs. Sites with rail access offer valuable options for railcars carrying inbound raw materials and/or outbound goods. Also is there ample roadway for easy truck-to-dock access? How about weather and the effect on grade around the property? Steep grades — particularly in icy conditions — can impede access.

... **PARTNERING WITH ESI.** Our in-house licensed civil engineer works with developers and local officials to research and evaluate your target properties and manages site work development. This process can expedite and ensure that the preliminary stages of a project are successful.

ESI's Dan Frigge has more than 30 years of experience in site development.

recycle

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the landfill or choose to reduce costs by burning or burying materials — including concrete — on site; however, the economics of construction waste management has changed in three ways.

Due to these economic and cultural shifts, the entire industry has changed dramatically during recent years, to provide new avenues to reduce, reuse and recycle — the three R's of waste management.

REDUCE: ESI and its vendors work to

Excess material, such as a partial pallet of masonry block, can be donated to local non-profit centers.

RECYCLE: ESI has partnered with a national waste hauling company to develop and administer a **co-mingled recycling program**. Materials, such as scrap steel, rebar, metal studs, concrete washout, pallets, lumber, and cardboard are collected on site in dumpsters. The waste hauler



ESI Constructors

Co-mingled recycling dumpsters arranged in construction laydown area.

1. Construction materials have become more expensive in relation to labor, which has increased construction managers' awareness of material conservation.

2. Increasing global demand for raw materials has led to improved infrastructure and additional marketplaces for recycled materials.

3. Environmental regulations and landfill fees have increased waste disposal costs.

At the same time, the green culture has grown as more people work to protect our natural resources. Many companies have adopted corporate sustainability programs and have elected to pursue projects certified by the U.S. Green Building Council for Leadership in Energy & Environmental Design (LEED).

order smaller quantities of materials, pre-cut to length, and delivered on a just-in-time basis, to minimize scrap and damaged materials for disposal.

ESI partners with a national waste company to recycle scrap materials.

REUSE: ESI employs strategies such as utilizing roof insulation cut-offs as added insulation around door jambs, or crushing concrete on site to install as road base.

takes the dumpster to a processing center to sort the recyclables.

On ESI's LEED certified projects, we track the percentage of waste that is diverted from the landfill. ESI is able to apply one point (50 percent diverted), two points (75 percent diverted), or three points (95 percent diverted) toward the project's certification. Often ESI is able to divert 95 percent of the construction waste monthly from a landfill.

Many projects do not require the additional paperwork or costs of LEED certification, but ESI is still able to apply the same strategies to reduce, reuse, and recycle construction debris to cut project costs and to conserve Earth's resources. ■

By Pehr Anthony Peterson

Peterson is a project manager with ESI Constructors. He has 16 years of experience with on-site construction management.

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- > Int'l Dairy Show - Booth No. 552
- > Pack Expo - Booth No. S-6102
- > IFDA - Booth No. 706
- > NFRA - Booth No. TBA

Click to view details on our website.



Workplace that inspires

There's no reason offices need to be boring. How about a workplace that inspires? ESI is proud of its work with client Sysco Food Services of L.A. to design and construct a 19,428-square-foot business review meeting center in Walnut, Calif.



Our Partners / Project Profile

The addition included a dual preparation area for two simultaneous customer food product demonstrations; a 5,800-square-foot conference facility with partitions to divide into four meeting rooms; and a 400-square-foot fine dining room for presentations.

Speaking of presentations, the new conference center makes a great first

impression with a new entrance and lobby covered with a "digital" wall covering. This four-wall covering is a continuous mural depicting Sysco employees, equipment and products — as well as its company logos and sales slogans.

OTHER SPECIAL FEATURES ...

... a new main stairway using open con-

cept stainless steel railings and pre-cast terrazzo treads;

... a custom metal ceiling with dropped bulkheads in the four meeting rooms. This ceiling style — located in the front hallway and break-out areas — lends the appearance and feel of a large convention facility;

... an intricate inlaid design in the preparation area that uses a variety of ceramic and glass tiles. ■



The 411 on: FIRE PROTECTION

WHAT'S NEW: Five years after its debut, high density, high volume fire protection systems (i.e. Tyco's Quell ceiling-mounted system) are now preferred over in-rack sprinklers or standard systems using antifreeze. Reasons being, old systems are prone to damage and are difficult and costly to maintain.

WHAT TO WATCH FOR: (1) New forklift energy alternatives (methanol, hydrogen, etc.) will present new angles for on-site fire protection; (2) Warehouse office computer rooms are now under review as some operators are replacing halon gas (with new alternatives) or installing detection systems with early alarms for employees; (3) Officials are addressing former vague codes related to high-rise building fire protection; and (4) International fire code officers are enforcing previous code for fire access doors to be located every 100 feet.

WHAT TO DO: Annually test all fire protection equipment and systems. Employees may have accidentally and unknowingly damaged or turned off equipment. Planning a building retrofit or greenfield project? ESI can help clients identify cost-effective ways to use the latest fire protection systems, equipment, materials and technologies.

Dan Rousseau is a project engineer with ESI's design group. Rousseau has 18 years of experience in the food, beverage and cold storage warehouse industries.

By Tom White

White, a project manager for ESI, has 36 years of experience in food, industrial and manufacturing facilities.

Other projects at this location include:

- A 37,000-square-foot cooler expansion
- Replaced 26 refrigerated dock doors and levelers
- Energy efficiency upgrade to the refrigeration dock
- 70 new truck/trailer parking stalls
- Replaced levelers, doors at 33 dry dock openings