

DESIGN-BUILD

Solutions

ESI specializes in food processing and distribution center design and construction.

SUMMER 2014

PROJECT FEATURE



No Construction Timeline is Too Tight



■ The rack steel in this 902,000-square-foot distribution center weighs 8,027,899 pounds or 4,013 tons. The ammonia refrigeration piping is 29,244 feet long or 5.54 miles.

WinCo Foods prides itself on keeping its grocery prices low. In fact, this Boise, Idaho-based employee-owned company maintains its title as the leader in supermarket low prices by offering more than 800 items for bulk purchase by the pound, allowing customers to bag their own purchases and accepting debit cards in lieu of credit.

WinCo traces its beginnings back to 1967 when Ralph Ward and Bud Williams founded a discount warehouse grocery store in Boise, under the name of Waremart, which stems from the founders' warehouse roots. The company operated stores under the names of Waremart Food Centers and Cub Foods until 1999, when it changed its storefront and corporate name to WinCo Foods, which

stands for Winning Company.

Since then, WinCo has evolved into a great discount, value channel supermarket with nearly 15,000 employees in 94 stores in eight states (Washington, Idaho, California, Nevada, Oregon, Utah, Arizona and Texas).

To better service their existing and future stores as well as save money on the transportation of goods, WinCo turned to ESI Group, Hartland, Wis., to construct a 902,000-square-foot Greenfield food distribution center in Phoenix, Ariz.

What was most unique about this project though was the aggressive construction schedule. The project began April 26, 2013, and was turned over April 3, 2014.

"The design and construction schedules were compressed to satisfy the client's

expected completion date," says Tyler Goodwill, architectural designer at ESI Design Services, Inc. (ESID). "ESID and ESIC [ESI Constructors] worked as one entity under ESI Group USA. The firms worked closely up front to determine how to best develop the construction documents, so they would sync with the compressed construction schedule."

Facility features include a new ammonia refrigeration system with 43 mini penthouses for the temperature-controlled areas (ammonia charge of 51,652 pounds), dry storage, mechanical rooms and support offices. The building structure consists of concrete slab on grade consisting of 22,000 cubic yards of shrinkage compensating concrete (saving 27 miles of floor joints), 531,000 square feet of insulated metal wall panels installed in eight

Mission Critical Construction. Done.

Usually when one hears the term “mission critical,” it’s safe to assume failure or disruption. But, for the folks at ESI Group, Hartland, Wis., it means the exact opposite.

That’s because when a customer like WinCo Foods, comes forward with an idea to build a large Greenfield distribution center under an aggressive construction schedule, ESI Group says okay, done.

Case in point: ESI Group completed a 902,000-square-foot Greenfield food distribution center in Phoenix, Ariz., from the ground up in just **48 weeks**, including design and engineering.

One item that made this project unique was its phasing. The project had eight phases. In order to expedite design, ESI Design Services (ESID) would develop a complete Phase 1 set of construction documents. While ESI Constructors (ESIC) had Phase 1 out for bid, ESID developed Phase 2 of the construction documents and so forth. Rather than having all construction documents done prior to bid, ESID and ESIC worked simultaneously, so that the design schedule would have as little impact on the construction schedule as possible. This was the strategy through all phases of design and construction.

Additionally, ESI workers and subcontractors worked through the summer heat, starting under the lights as early as 12 a.m. and ending at 4 p.m., six days a week. Three construction managers—two during the day and one at night—worked around the clock to ensure ESI Group delivered a high-quality facility in WinCo’s aggressive timeline. Quality control testing for the project utilized 10,525



■ To ensure this 902,000-square-foot distribution center was completed in just 48 weeks, ESI Group allowed bidding and construction to proceed without completed design documents.

man hours, which equals 5.06 people a year.

Other factors that made this project unique—and successful—were the daily coordination and schedule monitoring of subcontractor activities, continuous monitoring and expediting of material deliveries to assure materials were on-site prior to install dates and weekly coordination meetings with the owner representatives and subcontractors. And, all subcontractors received monthly schedule updates.

To ensure success, phased design and building construction allowed bidding and construction to proceed without completed design documents. Phased permitting with the city expedited the start of construction. And, use of multiple subcontractors in different building phases ensured adequate manpower was available to maintain schedule requirements.

WinCo Foods maintains its title as the leader in supermarket low prices, and relied on ESI Group to complete the distribution center in a more than timely manner in order to better service their existing stores and save money on the transportation of goods. ESI Group developed and maintained an early jump on the overall project schedule, met with regulatory officials to determine permitting requirements and processes and procured long lead equipment during the early phases of the project.

At the end of the day, the new distribution center comprised of a 104,000-square-foot -12°F freezer, 176,000 square feet of refrigerated space, 288,000 square feet of dry storage, 198,600 square feet of perishable and dry dock space and 135,400 square feet of support areas and support block buildings.

However critical the mission is, ESI Group’s ability to plan and execute make it so no mission is too critical for a tight schedule. // — **Mike Schwartz**, director of field operations for ESI Constructors

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months and 1,348 tons of steel (or 21,135 pieces). The roof assembly consists of a steel bar joist with metal deck, insulation and a mechanically fastened roofing system.

The entire building is equipped with 39 automatic fire suppression systems totaling 29.57 miles of sprinkler piping. The site offers a 15,166-square-foot truck maintenance facility that is attached, as well as a 36,194-square-foot stand-alone returns facility, where damaged pallets and/or products are brought back to be sorted and debited to the manufacturer and then re-palletized.

When it comes to building from the ground up, no timeline is too tight for ESI Group. //

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