A Very Large Dollar Store!

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Ahal Contracting Company of St. Louis (Bridgeton), Missouri tackled a challenging job at the 1.1 million square foot Dollar General® Distribution Center currently under construction in Marion, Indiana this summer. The challenge was to construct 1.3 million square feet of concrete floor, 374,300 square feet of tilt-up panels, and 200,000 square feet of concrete pavement in an exposed environment while meeting the owner's specifications associated with an enclosed, climate controlled building. The conditions on the job were hot, sunny, and windy with the occasional afternoon thunder storm. Furthermore, concrete floors are always stressed in a tilt-up operation since they are used as the casting bed for the wall panels. In order to meet the challenge, Ahal employed advanced scheduling and the latest technology on its concrete pours.

Ahal Contracting is no stranger to large, challenging concrete jobs. The company has over fifty years experience performing major concrete flatwork and architectural concrete installations for a variety of clients. According to Bruce English, Operations Manager for Ahal; the slab pours began each day at 3:00am and typically finished by 2:00pm. The slab pours were 40,000 square feet in size and the concrete was placed at a rate of 125 cubic yards per hour. The concrete floors were specified at FF50 for flatness and FL35 for levelness with Local Minimums of FF35 / FL25. Ahal was pleased to achieve slabs in the high FF60's to the low FF70's which greatly exceeded the specifications.

Concrete was discharged from trucks and placed using a 12 man crew along with a Somero® S-240 Laser Screed for slabs on grade and an Allen Engineering Magic Screed® for tilt-up panels and decks. A variety of floor flatness hand tools were used immediately after the screeding process. Confilm by Degussa Admixtures was applied after the Bump Cutting to keep the top of the slabs from drying too quickly. The concrete finishing was accomplished by a six man crew using two Allen®, Razorback® HD 550 Riding Trowels with Compodisks™ to break open the floor approximately three hours after initial strike-off. The panning operation was followed by a HD 550 Rider with combo blades. One hour after the combo blade pass, two Allen HD 530A Rider Trowels were used for the final floor finish. The tilt-up walls were set using a 240 ton crane. Ahal poured 36 wall panels per week and set the panels three days after they were poured.

Concrete was provided by Irving Materials, Inc. (IMI) which had a primary plant and two portables

set up on the job site. Concrete was delivered by 14 dedicated trucks on the job. IMI is based out of Greenfield, Indiana and has eight concrete plants in the state. The slab mix design was a 4,000 psi non-air mix with blended limestone and a mid-range water reducer resulting in a five inch slump.

Ground was broken for this project in July ’05 and all concrete work was completed by October ’05 which was ahead of schedule. The general contractor on the distribution center is Gray Construction based in Lexington, Kentucky. Gray was founded in 1960 and is a leader in providing engineering, design, and construction services to a variety of customers throughout the U.S. This Distribution Center in Marion is the eight such project Gray has constructed for Dollar General.

The Dollar General Distribution Center in Marion, Indiana is an $8.5 million dollar project on a 188 acre site located near Interstate 69. Construction should be complete by the fall of 2006 and the center will employ over 500 people when fully operational.

Dollar General (NYSE: DG) is a Fortune 500 discount retailer with more than 7,500 neighborhood stores. The company currently operates eight distribution centers located in the Midwest and Southern U.S.

For further information:

Dollar General

Gray Construction

Ahal Contracting Company