# E-DISTRIBUTION

SMARTER DISTRIBUTION | COMPLETE SOLUTIONS

CASE STUDY

## QuikTrip wins BIG with their new 70' high AS/RS Texas Distribution Center

In line with QuikTrip's ambitious expansion plans, this growing Tulsa, OK based convenience store chain looked to Midlothian, TX to meet existing and future demand in North Texas. QuikTrip purchased an existing 300,000 sq. ft. building and selected E-Distribution as the AS/RS Storage Systems Integrator to remodel and upgrade the facility.




### High-Rise System Improves Throughput

QuikTrip prides itself on providing superior customer service and constantly looks for ways to improve their order fulfillment processes to get the right products on retail shelves quickly. Their new high-rise AS/RS Push-Back system combined with highly-efficient multi-level pick modules allowed QuikTrip to effectively increase throughput rates and order accuracy.



### System Design

The system combines a 70' tall 2,3 and 4-deep push-back storage system which is loaded and unloaded with (2) AFT AS/RS cranes.

The material handling system incorporates multi-level picking with full case, broken case and tobacco order selection on separate rack supported pick levels. Cartons and totes are picked and placed on conveyor which is fed to a sortation system at the refrigerated dock, routing the orders to the correct route trucks that deliver the stores. The selection is accomplished with a combination of pallet flow rack for full case picking, and case flow racking for the broken small case selection areas.

The facility includes a 7,000 sq. ft. freezer that has a 40' tall, 3-level rack supported pick module providing full case and tote selection for their frozen product picking. A 12,000 sq. ft. cooler incorporates a 40', 2 level rack supported pick module and conventional cooler with standard floor level case selection.

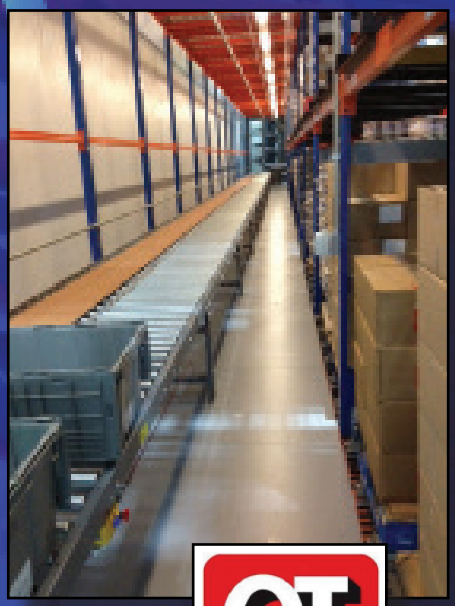
### System Highlights

- 300,000 sq ft DC Expansion/ Renovation Midlothian, TX
- 70' High AS/RS Push-Back System Integrated with AFT AS/RS Cranes
- Multi-Level Pick Modules – High tech/ Max-throughput pick modules
- 7000 sq ft Freezer – with 40' rack supported pick modules
- 12,000 sq ft Cooler - with 40' rack supported pick module & floor case selection

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### E-D Software Brings it Together On-Time

E-Distribution provided the system integration for the project including:

· Engineering design

· Calculations

· Complete Fabrication Drawings

· Vendor Management - racking, case flow, mezzanine flooring, and stairs

Project coordination and installation was seamless with E-D Construction Suite software. E-D software provided the framework of the project giving project personnel the ability to identify the parts needed in sequence of the installation. Items were ordered only when needed freeing up space typically used for on-site storage. Our on-site superintendant managed the day to day schedule of the installation crew and provided the necessary interface with QuikTrip's General Contractor. E-Distribution fabricated the various engineered mezzanine platforms at our fabrication facility and home office in Wylie, TX.



### Problem Solved

The project building schedule and refrigerated construction posed a few potential problems with the erection of the ASRS system. The existing concrete slab required an 8" topper slab poured on top in order to get the strength necessary for the enormous loading of the product and racking structure. In order to meet project deadlines, the refrigerated construction and dock areas were started earlier and the ASRS racking had to be installed with an internal crane which lifted the sections or bays over obstacles to set the bays properly. This elaborate coordination and planning demonstrated the expertise of the team E-Distribution assembled, along with the help of some of our most valued subcontractors and suppliers.



### Project Exceeds Expectations

E-Distribution completed the project per QuikTrip's schedule and expectations. In turn, this opportunity provided E- Distribution a wealth of knowledge that we can share on future projects.

The overall project was an excellent example of the effective coordination of various materials suppliers and on-site project management that removed the uncertainty from the project schedule.

Corp Office: 2525 S Shiloh Road, Suite 200 Garland, TX 75041
Phone (866) 690-4585 email: info@e-dist.com

Additional locations

Houston, TX Mt Prospect, IL Eighty Four, PA Nichols, NY
Emerald Isle, NC Wendell, NC Springdale, AR