

WAREHOUSE LAYOUT AND TRANSFER MANAGEMENT

Industry: PACKAGING MANUFACTURING

FRESH APPROACH TO THE LAYOUT OF A NEW FACILITY IN SUPPORT OF IMPROVED MATERIAL FLOW AND VALUE-DRIVEN ACTIVITIES WITHIN THE WAREHOUSE OPERATION

Unloading and putaway cycle times reduced by up to 66%.

Picking & loading cycle times reduced by up to 54%.

90% overtime charge reduction

95% reduction in inventory shrinkage and damage costs

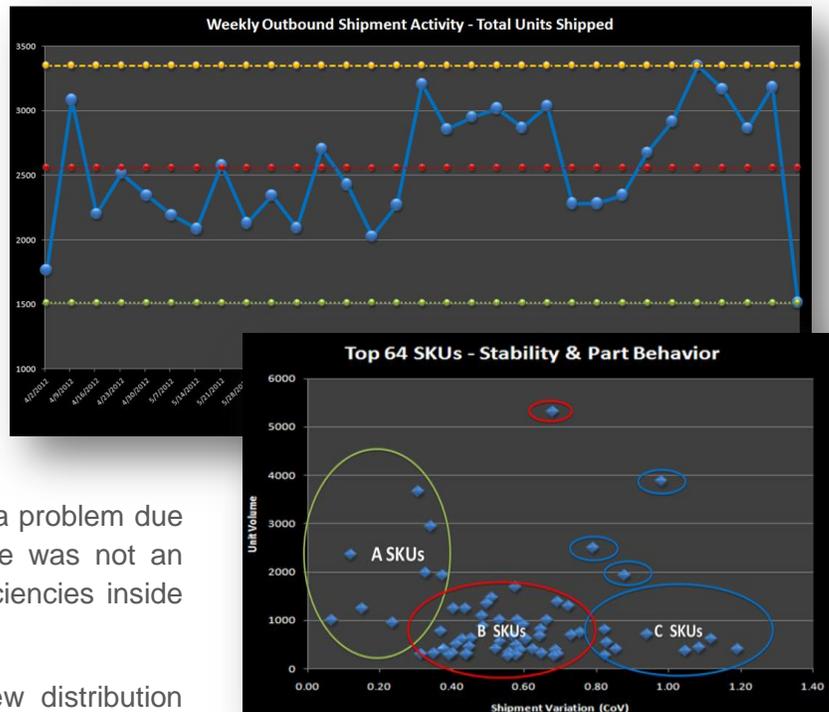
CURRENT STATE

Customer Challenges

The order-to-fulfillment lead-time for the external distribution center was causing problems for the customer's operations and have to improve in order to maintain the business relationship.

The customer was growing at a rapid pace but could not meet customer needs quickly enough on the distribution side of the business. This was mainly due to the improper set-up of the facility which could not meet customer demands. The overtime charges were out of control and inventory accuracy was a problem due to a poor layout strategy. In addition, there was not an inventory slotting strategy to drive any efficiencies inside the distribution center.

Having an optimized layout inside the new distribution center will increase productivity greatly while reducing costs without an impact to head count.



FUTURE STATE

Analysis, Tools, Solutions



LeanCor's consulting team was requested to develop a strategy for improving material flow and processes at the new distribution center location, *without impacting head count*. The layout was designed with a focus on increasing material velocity, process discipline, and reducing operational waste. The team ensured that the recommended strategy and layout were sustainable and flexible to future customer growth. The

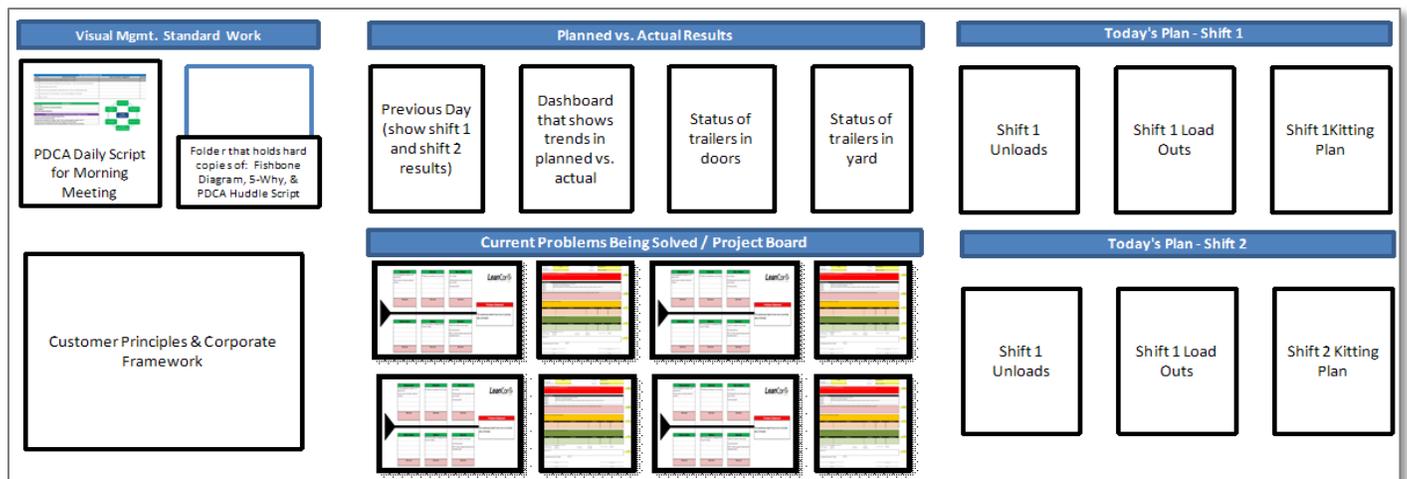
project included the completion of a Lean ABC SKU analysis, a customer demand variation analysis, on-site time and motion studies (*to understand process and cycle time variations*), and 3D product dimension analysis. The team focused on planned vs. actual productivity per shift to begin identifying and understanding problems, standard work compliance and problem-solving projects.

RESULTS

Deliverables, Improvements, Customer Home-Runs

The project was a success and resulted in an optimized layout and material flow design for the customer's newest finished goods distribution center utilizing a lean slotting strategy. The project provided:

- Recommended plan for transferring from existing facility into the new DC without impacting customers or production operations
- Recommended resource requirements for the new facility and a standard work summary for fixed resources
- Data analysis summaries and files that drive velocities and flow



- Recommendations for sustaining improvements
- Transfer management including on-site tactical leadership to ensure plan execution, hour by hour logistics plan for each SKU to be transferred, daily Plan-Do-Check-Adjust management, agendas, and meetings coordination

The transfer was completed with minimal impact to production and customer delivery activities. As a result of the recommended distribution center layout and material flow design, the customer requested that LeanCor design another warehouse in order to capture additional cost savings opportunities.

- Unloading and putaway cycle times reduced by up to 66%
- Picking and loading cycle times reduced by up to 54%
- Labeling cycle times reduced by up to 88%
- Resource requirements analysis reduced overtime charges by up to 90%
- Estimate 95% reduction in inventory shrinkage and damage costs as a result of less handling required for cycle count requirements