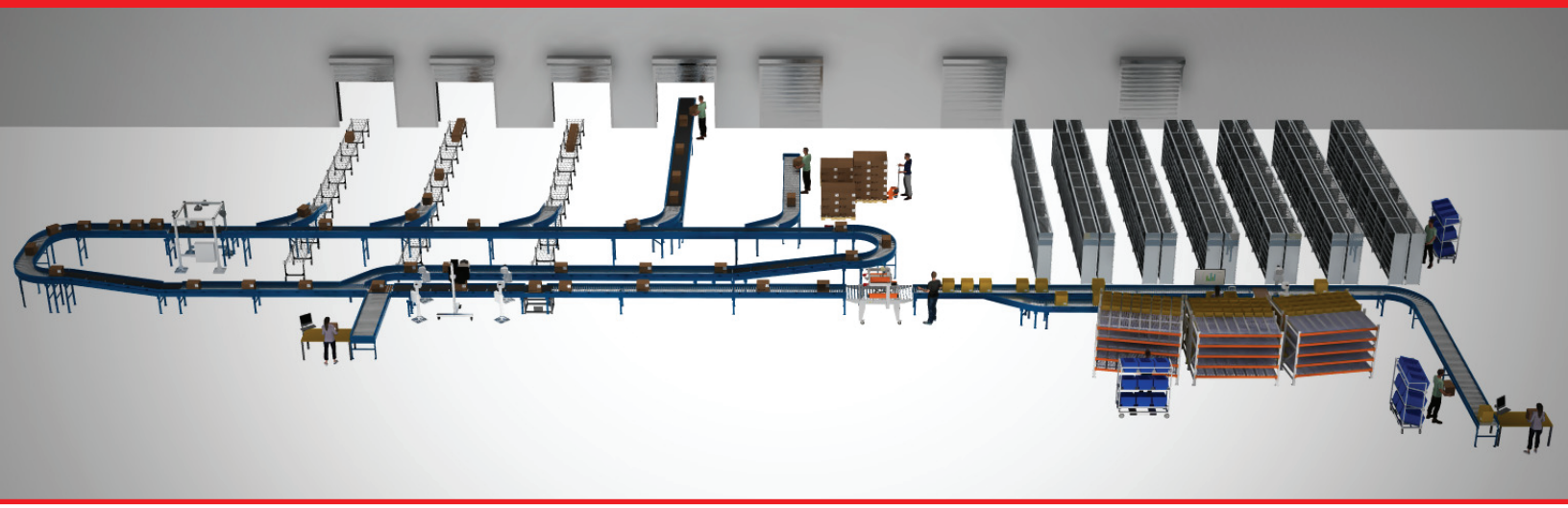
ETi

SMART *EDGE* CASE STUDY

SMART EDGE

Process Improvement
Space Utilization

Smart *EDGE* Advisory Services assessed the client's operations to reduce labor costs and improve space utilization. The solution doubled picking productivity and reduced the footprint by 70%, creating critical space that was reallocated to the growing manufacturing division.



PROJECT OBJECTIVES:

The client identified areas of focus across both manufacturing and fulfillment operations. They engaged ETi to assess the system layout and current processes to achieve the following objectives:

- Reduce picking labor costs in fulfillment
- Improve throughput and accuracy in fulfillment operation
- Redesign fulfillment layout to accommodate manufacturing expansion
- Consolidation options for the two manufacturing facilities

EVALUATION PROCESS:

The ETi team conducted onsite observations, process reviews, and interviews. Additionally, the team analyzed the client's data and documentation. Key findings included:

- Congestion in the existing pick-and-pass process
- Unreliable and unsupported pick-to-light system
- High labor costs for palletizing and shrink-wrapping cartons on the dock
- Consolidation of two manufacturing sites was feasible

ETi presented multiple fulfillment improvement options, each with different automation levels, costs, and payback periods. The team also developed a layout with a phased plan for manufacturing consolidation. Collaborative discussions helped determine the final solution.

RECOMMENDED SOLUTION:

The ETi team designed a future-state process flow solution that incorporated the following:

- Replace the unreliable pick-to-light system with a light-directed smart-cart system, allowing up to 36 orders per pass.
- Eliminate the need for a 30,000 sq ft, two-level pick structure and move to a more efficient 10,000 sq ft ground-level operation.
- Install two case formers to further reduce picking labor consumed by making boxes.
- Consolidate all picking operations into a single shift for improved efficiency.
- Implement a conveyor system with carton sealers, weight-check for accuracy, and automated sortation to gaylords, eliminating manual sorting, palletizing, and stretch-wrapping.
- Consolidate manufacturing operations into a single facility through the phased approach to eliminate additional cost burden of an entire facility.

PROJECT RESULTS:

The final design included the following key benefits:

- Doubled picking productivity through new automation, better software, and space utilization.
- Reduced the picking area by 70%, enabling expansion of manufacturing operations.
- Consolidated operations into a single-shift picking model, enhancing hourly throughput.
- Provided a phased plan to relocate and consolidate manufacturing operations, achieving significant cost savings.

Get the most out of your distribution center's potential.
Start your process improvement with Smart *EDGE* Advisory Services.

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