



# DESIGN SYSTEMS, INC.

## Manufacturing Engineering & Consulting

### Increase Profitability with Lean Techniques

Design Systems, Inc. provides comprehensive engineering, facility design and re-engineering services that enable you to maximize the productivity of your people, equipment, control systems and your facility. Using lean principles we will help you identify needs, create processes and implement strategies that increase bottom line profitability.



*Lean is the philosophy that shortens the time between customer service and customer satisfaction by eliminating the sources of waste. Typically, 90-95% of total “in process” time is non-value added.*

The “seven wastes” are commonly defined as:

- Errors
- Waiting
- Inventory
- Over-processing
- Over-capacity
- Transportation
- Motion

An “eighth waste” can be identified as under-utilized personnel.

#### Typical Result of Factory Flow Simulation – Congestion Analysis Comparison – Manufacturing Environment



Total travel distance = 12,951 ft/day – optimized state



Total travel distance = 22,158ft/day – current state

To embrace the lean philosophy and reduce the high cost of waste in the food and beverage industries we:

- Analyze work methods
- Increase value-added activities
- Reduce labor
- Eliminate errors
- Reduce capital equipment costs
- Reduce worker’s compensation claims
- Standardize protocols and processes

#### “BOTTOM-LINE” RESULTS:

- Reduce Capital Investment
- Reduce Annual Operating Expense
- Reduce Direct / Indirect Labor

FOOD AND BEVERAGE

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