

PROJECT BRIEFING

OPERATIONAL PROCESS IMPROVEMENTS FACILITY PLANNING



CAMBRIDGE-LEE INDUSTRIES, INC.

Cambridge-Lee Industries entered the copper tube industry in 1955 as a small distributor serving the U.S. plumbing market. Over the years, the company has evolved into one of the world's leaders in the manufacture and distribution of copper tube for water supply, air conditioning, refrigeration and a variety of commercial applications.

PROJECT OBJECTIVES

To determine inventory levels needed to serve customer needs.

To investigate new and alternative storage and handling equipment.

To propose a layout option for maximum site utilization for the new warehouse facility.

PROJECT SUMMARY

Analysis performed on two years of compiled historical inventory levels identified the company's inventory levels necessary to meet customer demand. From this baseline, inventory levels were extrapolated five years into the future and categorized by individual SKUs. Based on these levels, two options for inventory storage were posited, both minimizing the facility's footprint and utilizing the building's height. Conceptual layout drawings were prepared for each option.

Significant modification of the options included improving process flow from manufacturing, accounting for physical site restrictions and turning the expansion 90 degrees to provide better access from production. At this juncture, because of the substantial cost estimate for new equipment and racking, management added a significant cost limitation to the project which required a return to a previously discounted, lower cost option.






Upon further collaboration between the Cambridge Lee team and ESPI personnel, the equipment and racking costs were reduced by two-thirds by reducing the height and footprint of the building and increasing storage concentration. The final warehouse footprint was 25% less than management had first estimated.

"As a result of this project, we have developed a plan that will allow us to build a warehouse that is 25% smaller than the one we currently occupy. This is completely in line with the desires of our company executives."

Vice President, Sales and Distribution
Cambridge Lee Industries

Project work completed in partnership with Ben Franklin Technology Partners of Northeastern Pennsylvania and the Enterprise Systems Center of Lehigh University.

RESULTS

-  Reduced estimated warehouse size by 25%.
-  Better utilized current equipment, reducing need for new equipment.
-  Addressed management concerns for worker safety.
-  Saved \$1 million annually on lease of outside facility.
-  Saved \$2 million in annual transportation costs between remote warehouse facility and manufacturing facility.

