

Lean Microbiology Laboratory

Problem:

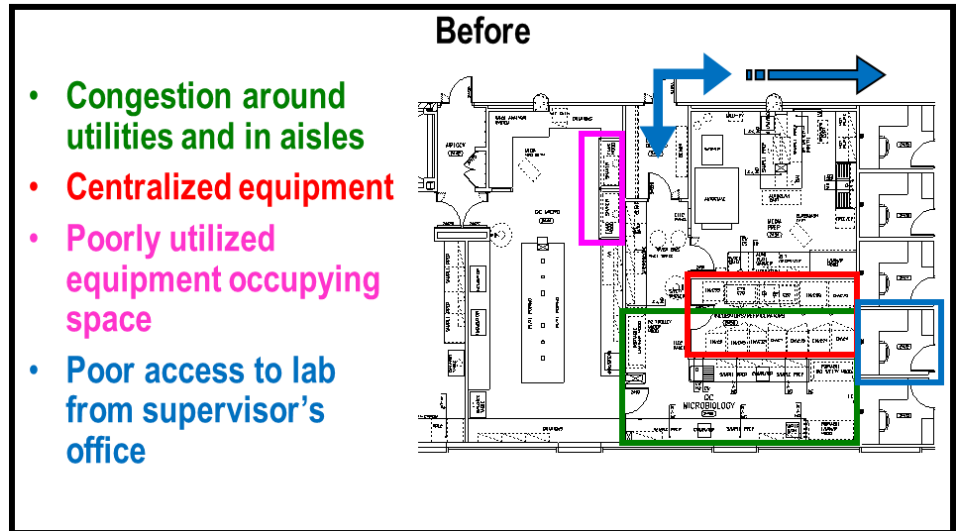
The volume of samples to be tested by the micro lab was forecasted to increase by 30% in the next 12 months.

How could the lab throughput be improved to allow absorption of the extra work without any additional headcount?

Analysis:

Process observation indicated seven basic test categories composed more than 90% of the workload. Spaghetti diagrams indicated significant amount of transportation and movement waste.

Considerable delays: sample queue time, waiting for available workspace near required utilities or equipment



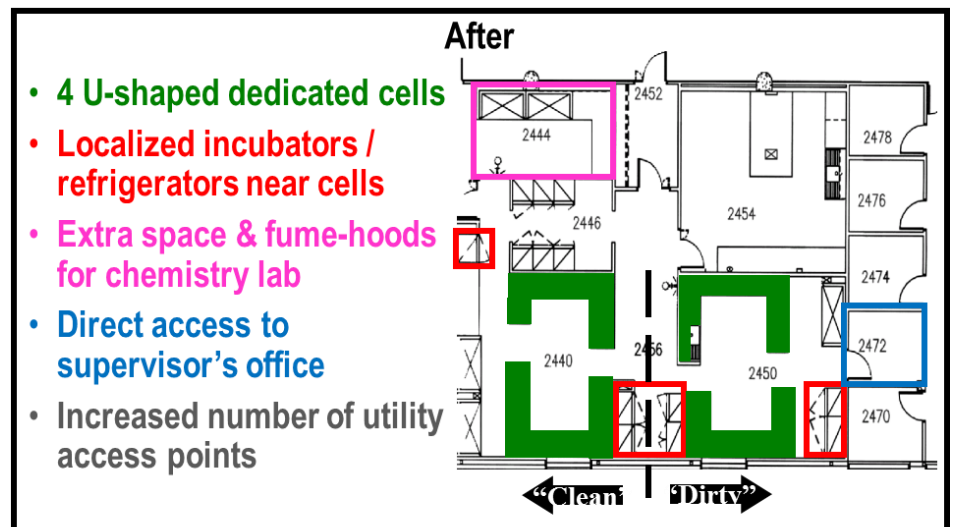
Approach:

Needed to improve the flow of materials / people and minimize delays.

Utilized Muther's grid analysis & 5S exercise to reorganize work area for greater efficiency using existing cabinetry and benches.

Solution:

Created four U-shaped work cells, each one supporting 1 or 2 of the test categories. Each cell was fully self sufficient; everything needed was within a few steps which minimized transport and increased the amount of useable space with respect to access to equipment and utilities. This allowed more tests to be completed simultaneously



Benefits:

Increased lab throughput by 28% (tests per analyst per day). Reduced total space by 12% and reallocated additional space and poorly utilized equipment to the adjacent chemistry lab, off-setting the cost of renovating the micro lab.

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