



PROJECT SCOPE DETAILS

ARCHITECT: CTA
Architects
END USER: Dell
PROJECT SIZE: \$1 million

DELL - TECH LAB CASE

Dell has been a Formaspace client for more than 25 years. Over the years, we have provided the company with tech lab, manufacturing, office, retail, and even residential furniture. In late 2015, Dell decided to co-locate its global labs back to Austin, Texas. The company projected a cost of \$100 million to expand its Round Rock Lab building, furnish the lab space, and bring their engineers home.

PROBLEM

Unfortunately, managers were charged with making this co-location happen, but not awarded the budget to do it. The lab managers were stuck between a rock and a hard place and needed to find a feasible solution quickly.

SITE SURVEY DISCOVERIES

Formaspace sent a team to the site and discovered that each server at Dell costs over half a million dollars. R&D servers are unique, one of a kind prototypes. If they are dropped, or have ESD failure, the company loses \$500,000 and time spent on development.

Servers are very dense and heavy, and they easily slide around on laminate surfaces. Additionally, ESD failure can happen without notice and be completely untraceable. Issues may not come to light until months or years later. With the existing configuration of the benches, technicians were spread out across three workbenches, and only able to test one server at a time.

SOLUTION

We partnered with CTA Architects to evaluate Dell's spatial needs and laboratory workflow for server testing. We designed a condo rack, moving shelf bench, and an ergonomic, height adjustable ESD workstation for technicians.



PRODUCTS

1 The Condo Rack
 This product allows technicians to test up to four servers simultaneously, **increasing throughput by up to 400%**. Features of the condo rack design included testing servers placed on top of the shelves and out of the way, heavy duty pull-out shelves with locking tabs, high weight capacity lock-in lock-out slides, and removable sides for retaining servers.

2 Moving Shelf Bench
 Shelf supports two \$500,000 oscilloscopes, which need to be out of the way for testing, but accessed between tests.

3 Height Adjustable ESD Workstation for Technicians
 We paired the custom units with economical standard products. Formaspace worked in conjunction with Dell to ensure that monitoring tests became mostly automated, meaning no one had to physically sit and watch the entire 24-36 hour testing regimen, saving millions of dollars annually. We implemented 24/7/365 ESD testing and monitoring, eliminating the potential for ESD failures and eliminating several hundred thousand dollars of mat costs annually.



Saved Dell over 37% of R&D tech lab space and **\$84 MILLION** in construction costs with our furniture solution.

RESULTS

Construction savings of **\$84 million** on an original \$100 million budget (less than \$1 million in furniture). The condo rack solution **saved 37% of floor space**, eliminating the need for a new building. The 24/7/365 ESD testing and monitoring solution reduced the potential for ESD failures and saved Dell several hundred thousand dollars of mat costs annually. The height adjustable ESD workstation helped Dell save millions of dollars annually in labor savings.

