

# CASE STUDY

## Creative Testing Solutions and American Red Cross

### THE TASK

Creative Testing Solution sought to relocate their aging St. Louis lab within the region in 2019. Cissell Mueller Construction was referred to them as a great fit as a design/build contractor.

### THE PROJECT

By November of 2019, this relationship had progressed and CMCI had sent a proposal for full Design-Build services for a 48-50K sqft, single story laboratory, warehouse, and administrative building. By June, they were ready to sign on for full services.

CTS had identified (2) viable parcels within the Riverport Development area. They worked with their selected lab-specialty Architectural design team from SmithGroup through the course of 2020 to develop and refine a schematic design and basic siting for the building within the potential parcels. It was during this time that their sister company, the American Red Cross, with whom they shared a building for their existing St. Louis regional operations, expressed interest in moving with CTS and joining the new project location. This increased the project scope and budget to \$40M, finalized the project size and solidified the site selection to the 127k sqft, 2-story building on its 6ac site with a 2-level parking garage structure. The CTS team would go on to design the building shell and CTS interiors, where ARC brought their own architectural and engineering team to design the grayscale within their half of the building.

CMCI suggested and solidified the additional, local engineering team needed for remaining scopes for the site, building shell and CTS interior space build out. By late December of 2020, these engineering team members were able to engage with the architectural design team and begin design development. CMCI acted in the design-builder role to review design coordination against cost projections at the numerous iterations of the design process.

The CMCI team developed budgeting and brought on key subcontractors in this course to jump start the permit approval process and allow for early construction start elements. The Maryland Heights municipality was cooperative in breaking out permits to facilitate this process, but would later prove to be unusually restrictive in project change documentation process and approvals.



# CASE STUDY

## Creative Testing Solutions and American Red Cross

### THE PROBLEM

The scope was greatly increased and required coordination with ownership and design team with varying goals. While these owners had existing relationships, they were not necessarily aligned on outcomes or priorities throughout construction.

The CMCI team was able to effectively communicate timelines and budgets and coordinate shared and overlapping needs during the separate, but involved design processes and construction timelines.

The CMCI team was able to facilitate discussions after vendor selection for shared items to guide the owner and vendors through coordinated design and preparation processes. Where some of these vendors fell short on timing, detail, and execution, CMCI picked up the slack to ensure successful implementation of vendor systems. The development and construction durations of this project occurred during a period of significant price upheaval and escalation for local and national construction industries. Some key, standard building system products were in short supply, unavailable, or largely inflated in cost across all suppliers. CMCI was able to identify at-risk items during preconstruction, buyout, and new items during construction and work with ownership parties to make strategic selections and program adjustments to blunt their impact. One of the more-notable actions was to eliminate the in-process parking garage structure and facilitate adjacent parking options to meet the needs of (2) separate owners with multiple, overlapping shifts for their 24/7 operations. The timeline should also indicate how CMCI was able to successfully navigate unusually burdensome documentation and inspection requirements,

along with continual design refinement and changes on both owner sides. Its proactive stance and team developed the most efficient methods available to work within these circumstances, while also adjusting to changing needs and direction as new information and direction were shared. CMCI was able to create opportunities for owner parties to integrate startup tasks within the construction timeline to accelerate owner operational efficacy.

### THE SOLUTION

The types of challenges did have an overall effect of adding time and cost to original expectations, but the collaborative efforts of the job team and deep understanding of owner processes allowed the outcomes to be mitigated to optimal results for this scenario.

CTS continues to bill this lab location as their flagship and iterates on improving operations within its malleable space. CMCI is still working with them to support and adjust systems for new equipment needs and upcoming testing line and equipment change roll outs.

ARC team members have had very positive feedback for the team, inviting CMCI to work with them again to build out other locations. Two such efforts have been made to-date.

