Concurrent Technologies Corp. will partner with the U.S. Army Tank Automotive Research Development and Engineering Center to design and manufacture Next Generation Combat Vehicle prototype hulls such as this one over the next five years.

Submitted photo

Concurrent Technologies Corp. has been awarded a $7.45 million contract to partner on prototype work on what the U.S. Army envisions as its combat vehicle of the future.

Through a five-year deal, CTC will work alongside the U.S. Army Tank Automotive Research Development and Engineering Center to design and manufacture Next Generation Combat Vehicle prototype hulls – aluminum alloy cabs that will be rigorously tested to improve performance and survivability for tomorrow’s war fighters, company officials said Tuesday.

The Army made headlines this fall by announcing the combat vehicle project will be a top priority in the coming years, one that could serve as a high-tech, lightweight and better-protected replacement for iconic vehicles such as the Abrams Tank and Bradley Fighting Vehicle.

Developing prototypes for the type of hulls that could one day carry and shield soldiers in battle is just one of a long list of tasks that have to be developed and tested over the next decade or more.

According to P.J. McMullen, who is serving as CTC’s project manager for the combat vehicle contract, the Richland Township-based company will collaborate on the prototype’s design and then build the prototype hulls through a specialized “friction stir” welding process.
As many as four prototypes, each likely changing as the design process evolves, could be built by CTC between now and 2022, and each will be put through intense fatigue-, ballistic- and blast-testing by the Army’s Tank Automotive Research Development and Engineering Center to see how they respond, said McMullen, CTC’s manager of advanced technologies.

“CTC has a long history of optimizing manufacturing processes, including friction stir welding,” CTC President and CEO Edward Sheehan Jr. said. “I’m proud that we are playing a role to improve mission effectiveness through advanced manufacturing.”

McMullen estimated that between 15 and 20 of CTC’s welders, engineers, technicians and machinists and support staff will be working on the project over the next five years.

“CTC is fortunate to have highly qualified and dedicated employees. Our work will ensure the best possible design of this vehicle and will add to our expertise for the benefit of future efforts as well,” McMullen said.

CTC landed the contract through a competitively bid process launched by the Army’s Tank Automotive Research Development and Engineering Center earlier this year.

Bidding was limited to members of the Defense Automotive Technologies Consortium, a group that includes 137 automotive and defense companies, academic institutions, manufacturers and technology firms.

McMullen said CTC was a founding member of the consortium, which launched in 2016.

CTC’s Army contract is scheduled to run until September 2022.

David Hurst is a reporter for The Tribune-Democrat. He can be reached at (814) 532-5053. Follow him on Twitter @TDDavidHurst and Instagram @TDDavidHurst.