

US Army Corps of Engineers

Powertrain Transmission Facility and Process Installation Design



When the Anniston Army Depot (ANAD) and the United States Army Corps of Engineers (USACE) embarked on a project to consolidate the transmission remanufacturing process for all tracked military vehicles it serviced into a new, world class manufacturing facility, they enlisted SSOE to provide full facility architectural and engineering design services, as well as equipment migration design for the new facility.

As one of the top ranked firms in automotive facility design, SSOE brings state-of-the-art technology into an open floor plan, while modernizing and consolidating ANAD's transmission remanufacturing program. It enables a more efficient process flow from transmission disassembly through the cleaning process, to reassembly and testing.

The Scope includes design to support the relocation, installation, and point of use connections for more than 170 existing pieces of equipment from 13 buildings on the site. Additionally, more than 70 cranes, up to 10 dynamometers, and more than 30 pieces of new process machinery, both government and contractor furnished, will be integrated into the facility. The plan also incorporates expansion of an existing 15kv switch yard to support the facility.

SSOE considered potential site constraints including Anti-Terrorism Force Act (ATFA) requirements, existing boundaries and easements, environmental permitting, and a concurrent USACE Cold Water Creek Relocation project, as well as project specific permits required to move an additional tributary creek flowing through the site. SSOE recommended that permit requests be done in parallel to reduce overall project execution schedule.

value promise

Permit requests done in parallel to reduce project execution schedule and meet permitting needs. 30% savings in energy use.

size 110,000 SF

location Anniston Army Depot, Alabama

highlights

LEED(R) Silver certifiable

190+ existing and newly acquired pieces of machining, testing, and diagnostic equipment

Fast-track design utilizing design-build delivery ; USACE - Mobile District is project execution agent

Supports ATFA standards, goals of EAct of 2005, EISA 2007, EO 13514, and EO13423, as well as EAct

110,000 SF transmission rebuilding facility; 18,000 SF offices and cafeteria; 60,000 SF equipment enclosures to house cleaning, painting and testing

Three dynamometer test cells with engineering for a total of 10 test cells