Executive Summary

The Civista Medical Center project is a three-phase addition, renovations, and site development project in LaPlata, MD. Its intent is to accommodate the increasing service volumes at the medical center. The recent population growth in the primary service area of the hospital is forecast to continue into the foreseeable future. As a result, the hospital has faced challenges accommodating particular service needs. The new addition comprises of four new floors of patient care and an elevator core on the south side of the existing hospital. New construction coupled with selective renovation should boost Civista back as a viable competitor in the Health Care market.

The Research Topic investigates Infection Control Risk Assessment (ICRA). ICRA a strategic plan intended to identify and alleviate potential risks associated with the air quality environment during the construction phase of a project. Careful coordination and sequencing is essential to properly address and respond to these issues. The research analyzed similar projects to establish a plan unique to Civista.

The first Technical Analysis examines the replacement of the existing Steam Pressure Reducing Valve with a new Non-Condensing Backpressure Steam Turbine. The turbine generates useful electricity from steam flow, ultimately saving Civista money on energy costs.

The Second Technical Analysis looks at the replacement of copper feeders with aluminum alloy (AA-8000 Series) feeders. Recent research indicates that Aluminum can perform just as efficiently as copper at a fraction of the cost. The analysis will discuss its benefits.