

2.0 Executive Summary:

This report develops a detailed existing mechanical systems evaluation of South Jefferson High School. The analysis of the existing systems shows specific areas in which the building can be improved with possible re-design or modification.

In order to provide orientation and makeup of the building, a short summary of the general building background is provided at the beginning of the report. Followed by, information on the original mechanical systems design objectives and requirements. Next, the report shows a thorough evaluation of the existing mechanical systems including quantities and specific cut sheet values of the buildings airside and waterside equipment, and a general analysis of the mechanical systems control logic.

In the design ventilation requirements and design heating and cooling sections design requirements from which equipment was selected can be seen. The following sections of the report, lays out the economic cost data including mechanical system first cost and annual energy consumption and cost. Next, an evaluation of the buildings emissions and environmental impact is derived. The final section of this report, discusses the findings and potential improvement areas discovered in the mechanical systems existing conditions evaluation.