

1.0 EXECUTIVE SUMMARY

The general idea for this assignment was to gather what was learned in the previous technical assignments and evaluate possible redesign considerations. In the redesign of the Bronx School for Law, Government & Justice it was concluded that the use of Thermal Energy Storage (TES) would be evaluated. The building predominantly uses electricity as the primary source of energy and the notion to reduce demand cost was the driving factor in the selection of TES.

The addition of TES will have an impact on the electrical systems of the building. Therefore, an analysis will also be done to evaluate how the electrical systems are affected by the addition of additional mechanical equipment. Another topic that will be evaluated in detail will be the life cycle cost of the building. The primary reason for any redesign is to determine whether energy savings can be created enough to cost-justify the often additional of first cost.

Then after the analysis is complete it will be determined whether the use of TES will be an acceptable alternative to the current system without thermal storage.