



December 13, 2023

Eric Larson
Union County Education Services
45 Cardinal Drive
Westfield, NJ 07090

Subject: Engineering Services

- Oversee TAB services and Replace VAV boxes as needed

Dear Mr. Larson,

Tri State Light and Energy Inc. (TSLE) is an energy efficiency design-build firm with 40 years experience helping utilities and their customers implement energy efficient solutions. To date we have saved building owners over \$150MM in lifetime utility savings and implemented over 3,000 energy efficiency projects for small-mid size customers, as well as Fortune 500 clients.

We have working experience with various commercial and industrial customer segments including Health care, Hospitality, Data Centers, Commercial Real Estate, Municipalities, Schools, Federal, Pharmaceutical, and other industrial facilities. TSLE is a DPMC classified Engineering firm that provides services including Condition Assessment, Audit, Design, Construction and other engineering services to our public and private clients.

We are pleased to submit our proposal to provide Union County Education Services with an Oversee TAB for all Rooftop Units, VAV Boxes and Room level Air Flow. We will also review Water Flow throughout the facility.

Existing Equipment Description:

The Lamberts Mill Academy building at 1571 Lamberts Mill Rd, Westfield, NJ is a special education school managed by Union County Educational Services. The building was flooded in in Fall 2021 and is now undergoing major rehabilitation. The building has gone through major renovation and following equipment was installed:

- 2 new high efficiency boilers
- 19 unit ventilators along with its condensing units on the roof
- 10 Rooftop units

There are approximately 5 existing rooftop units and existing 45 VAV boxes at the facility.

The building has installed two new high efficiency heating hot water boilers with circulating pumps. These boilers provide hot water to new high efficiency VRV 19-unit ventilators, which provide heating using hot water coils on Unit Ventilators. These VRV Unit ventilators are connected to its condensing unit and also capable of providing heating and cooling.

The building also has 15 rooftop units, which serve various areas throughout the building, including classrooms, cafeteria, gymnasium and other specialty locations. There are approximately 45 VAV boxes throughout the facility.

The Facility is in process of replacing 10 Rooftop units and controls upgrade project.



Services:

- Perform a full survey of the facility and collect existing equipment data (i.e. make, model, age, condition and services).
- Review and compare drawings and actual equipment to determine original design intent in the building.
- Provide TAB (Testing and Balancing) contractor room by room and unit by unit airflow and water flow requirements based on original design
- Review Initial TAB Report and provide deficiencies that does not allow equipment to meet its design airflow
- The Initial TAB report will provide full deficiency list for Air system specific to Rooftop units and VAV boxes
- TAB report shall out line deficiency and root cause of the deficiency example Issue with VAV boxes, its damper and actuators etc.
- The deficiency report will outline air-balancing issue, TSLE will work closely with facility's mechanical service contractor to replace or retrofit options for VAV boxes that are not working as original design.
- We will provide specifications for new VAV boxes or retrofit option (if applicable) and also work with controls vendor to coordinate their scope of services as needed.
- Our Design Deliverable will provide make, model and controls required for the new VAV boxes to address all the deficiencies.
- TSLE also will work with TAB contractor to perform full TAB activities for Air and Water balancing for items that were address by mechanical contractor
- We also strongly recommend that TAB contractor shall provide water and air balancing for Unit Ventilators as well.
- At this time, we don't anticipate any air or water balancing issues, but we will closely work with TAB contractor to address any deficiencies that are identified in TAB report.

Exclusion:

- We have not included engineering efforts required to any potential air or water balancing related deficiencies. We don't expect any at this point.

Fees:

Facility

Lamberts Mill Academy \$15,500.00

Our team will work with you on next steps. Should you require additional information, please contact me directly at (646) 357-6340.

Respectfully submitted,

Tejas Desai PE
General Manager



ATTACHMENT "A"

ASSUMPTIONS

This proposal is based on the following assumptions:

1. All recommendations will be provided as written descriptions only, with their respective performance parameters.
2. No detailed design drawings or specifications will be provided as part of this report. The report will include new VAV boxes or retrofit options including controls work required.

Authorization to Proceed

The above proposal is acceptable, and the signature below indicates authorization to proceed.

Name

Title

Signature

Date