



Medway Public Schools Energy Services Program



Detailed Audit Summary Results

- 1. Reduce Energy Consumption in all schools**
- 2. Improve the Learning Environment in classrooms**
- 3. “Green” Medway Public Schools**
- 4. Maintain systems operation and guarantee savings**



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What is Performance Contracting?

Energy Savings Performance Contracting enables building owners to use future energy savings to pay for (design and construction) costs of energy-saving projects, eliminating the need to dip into capital budgets.

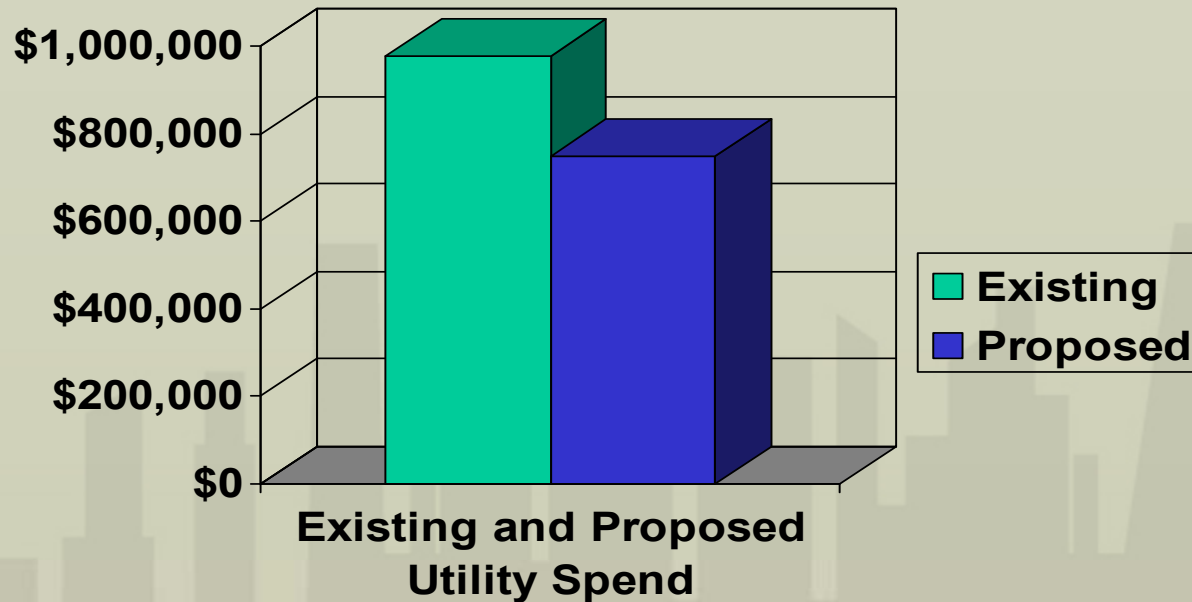


–Energy Services Coalition (ESC)



Medway Public Schools Detailed Audit Findings

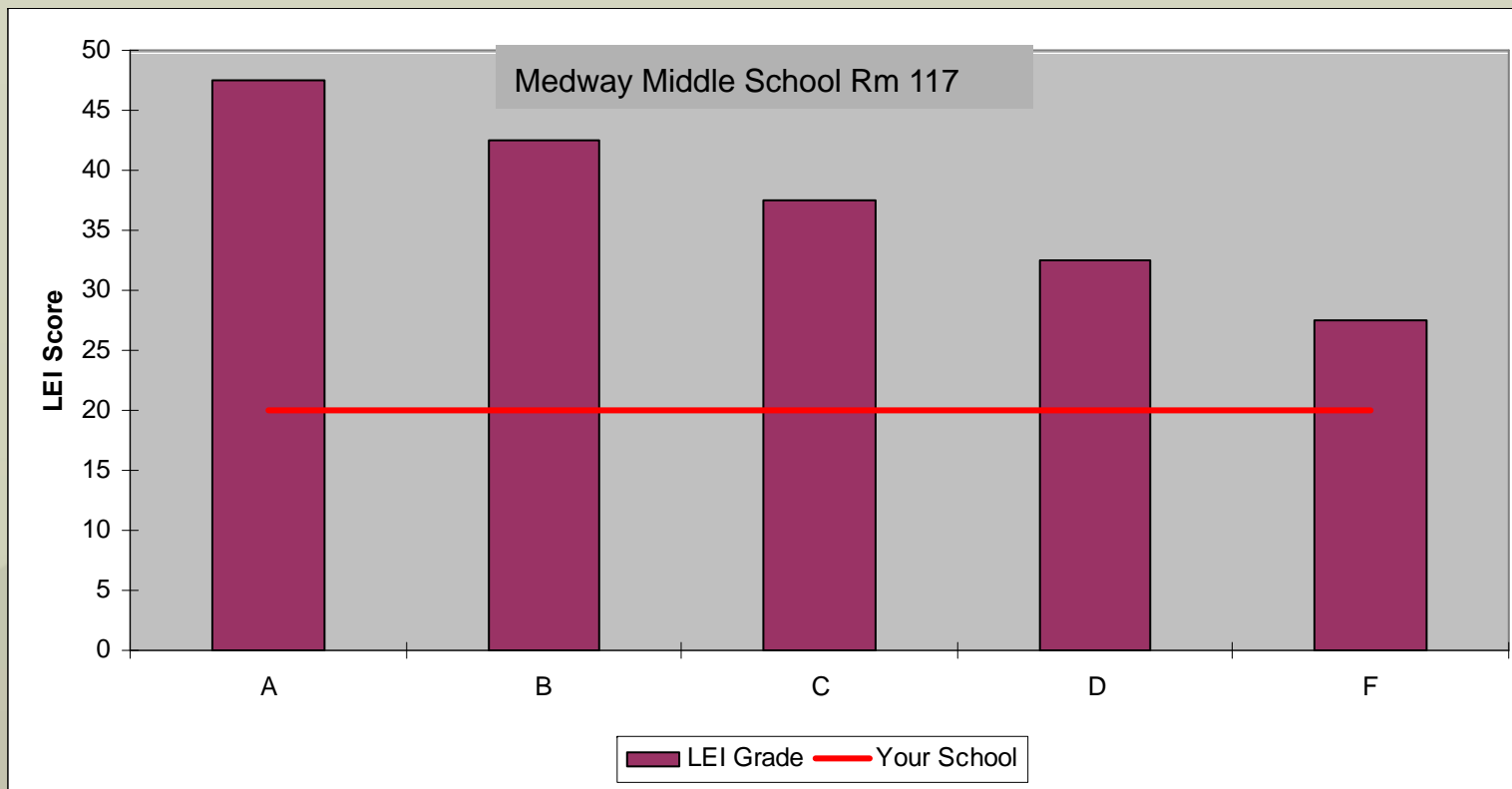
- ▲ \$228,500/yr in identified savings opportunity
- ▲ 23% Reduction in current utility spend





Trane's Learning Environment Index (LEI)

Goal of the Performance contract is not only to reduce energy and upgrade facilities but also measurably improve quality of the learning environment in the classroom.





A Comprehensive Approach

▲ Highlights of Proposed Program:

- Demand limiting at High School (Chiller + other equipment)
- New unit ventilators at Middle School, Burke and McGovern
- New Building Automation System throughout district
- Lighting
- Solar
- Variable Frequency Drives and high efficiency motors
- Computer Network Control (to control school computers)
- Building weatherization
- Vending Machine Misers
- Power factor correction



Comprehensive 20 Year Program

Project Summary

Annual Savings: \$241,278

Total Savings: \$7,184,794

Installed Cost: \$3,738,572

Rebates: \$638,457

Total Cash Flow: \$646,086*

List of Improvements

- Solar Photovoltaic
- New Unit Ventilators in Middle School, McGovern, Burke
- Building Automation System Middle School, McGovern, Burke
- Lighting
- Building Weatherization
- Variable Frequency Drives
- Computer Network Controller
- Plug load Controller

***Learning Environment Index
Improves from F to A***



How it works – Organizational Structure



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Alternative
Funding



Architect
Engineer
(if needed)

Mechanical
Contractor

Electrical
Contractor

Plumbing

Windows

Roof

Others



Why wait for SBA?

Taxpayers and students win with a Performance Contract

	<u>Performance Contract</u>	<u>SBA</u>
HVAC Retrofit	\$1,150,000	\$1,350,000 (5 years later)
A/E fees/studies	\$0	\$300,000 study
	\$0	\$200,000 design
Capital Outlay	\$0	\$1,080,000 (40% reimb)
Date completed	2009	2014??
LEI 2009-2014	A	F

Consider using SBA for Building Envelope and other items (windows, electrical, flooring, etc.)



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Proposed Medway Schedule

Proposed Medway Schedule:

- | | |
|---|-----------------|
| 1. Present Results of Detailed Audit | Sept 08 |
| 2. Establish scope of project | Sept 08 |
| 3. Prepare executable contract documents | Sept 08 |
| 4. Develop Funding Plan | Sept 08 |
| 5. Execute Energy Services Agreement | Oct 08 |
| 6. Close financing | Oct 08 |
| 7. Implement improvements | Nov 08 – Aug 09 |
| 8. Upgrade facilities, maintain systems and guarantee results | Aug 09 →→→ |