

Mt. Diablo USD

RFQ#1896 - Construction Amendment #1 LED Lighting and Energy Management

May 11th, 2022



Schneider Electric Construction Amendment #1 – LED Lighting and Energy Management



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Project Tracks – Track 1 LED Lighting

Project Scope 1: LED Lighting Internal/External

Audit

Dec 21 – Feb 22
50+ sites – Interior /
Exterior

Design

Mar 22 – Apr 22
Good – Better – Best
Options

Construction
Kickoff/Install
Late May – June 23

Project Scope 2: Non-DSA HVAC and Controls

Audit - Jan -
April 2022

- Evaluate current
state

Design - Feb - May
2022

Install - Late 2022
and Spring/Summer
2023

Project Scope 3: DSA Permitted HVAC + New Units

Audit - Jan -
April 2022

Includes adding
HVAC at MPRs and
Kitchens

Design/DSA
Approval Feb 2022 -
Feb 2023

Install - Summer
2023

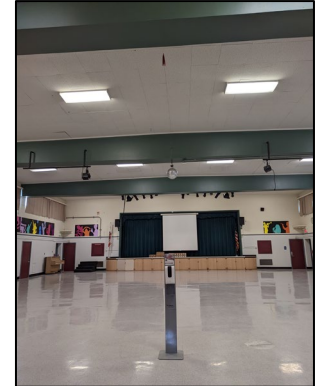
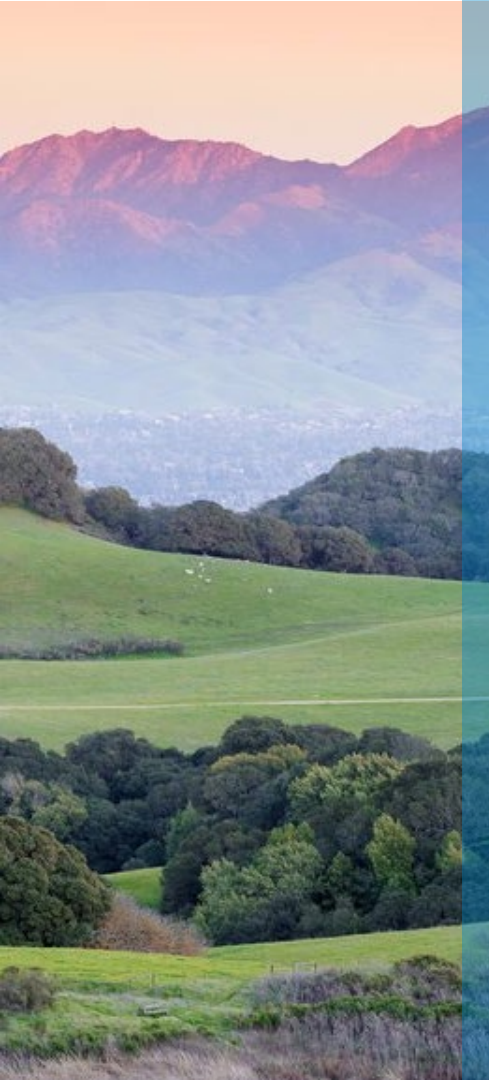
Audit Details

Multi-Month Investigation

- The audit was composed of:
 - 6,800+ Exterior fixtures
 - 40,000+ Interior Fixtures
 - 2,000+ Classrooms
 - 7,000+ unique spaces and areas
 - Human Centric Lighting (60 classrooms)
- Photometric light readings
- Detailed individual records for each light
 - Lamp type, wattage, condition, etc.



Audit Photo Examples



Design Process

Interior Spaces

Good

LED Tube
Replacement
Only



Better

LED Retrofit
Kits
Occupancy
Sensors



Best

Architectural
Grade Retrofit
Kits
Occupancy
Sensors
Dimming
Ceiling Tiles
and Lens
Replacement



Design Process

Interior/Exterior Spaces

Exterior Lighting

- Like-for-Like Replacements
- Additional lighting

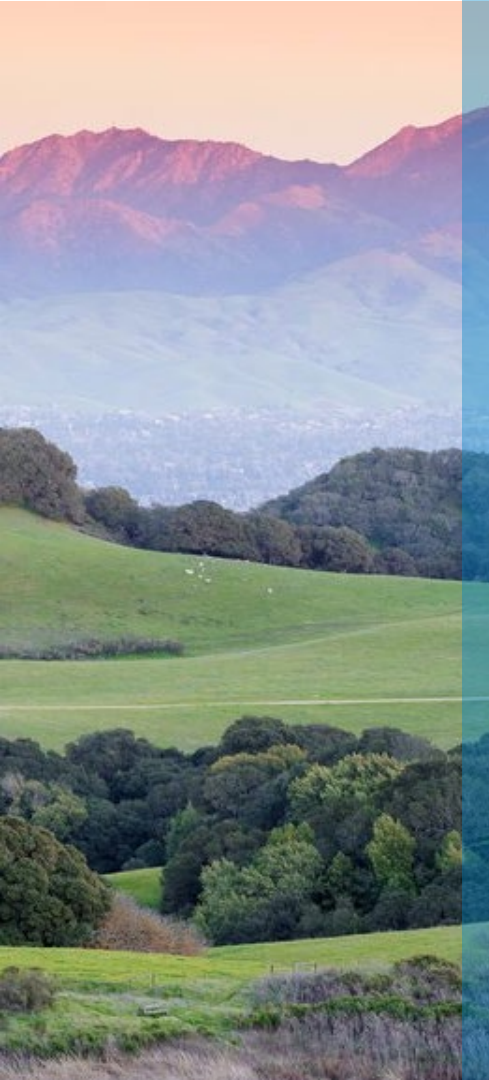
Lighting Controls and Switches

- Remote Scheduling
- Within Existing Controls Dashboard
- Dimming Switches

Humancentric Lighting

- Designed for Special Needs Classrooms
- Color Changing and Dimming





Recommended Project

Modernizing Mt. Diablo USD

Project
<p>Turnkey District-Wide LED Lighting</p> <ul style="list-style-type: none">-District-Wide LED Retrofit Kits-LED Tube Replacement in "Architectural Spaces"-Complete Exterior Lighting Replacements-Occupancy Sensors- Dimming Functionality and Light Switch Upgrades- Human Centric Lighting for Special Needs
<p>Ceiling Tile and Lens Replacements</p> <ul style="list-style-type: none">-Improvements at each site
<p>2-Years of Energy Management</p> <p>Hands-On Operational Support for Increased Utility Savings</p>



Project Price

Fixed-Firm Commitment

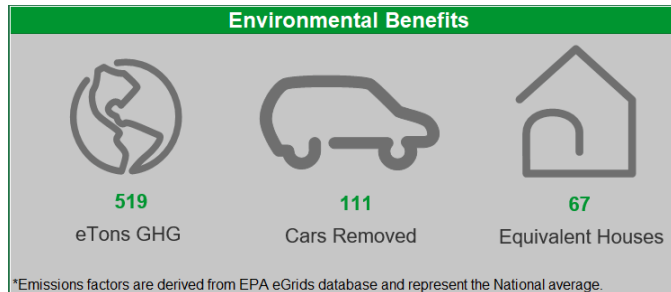
Recommended Project Price

\$24,354,012



Benefits – Classroom/District

- Enhanced Learning Environments through high quality lighting and increased comfort
- Improved campus safety and security
- Targeted Exterior Lighting to campus / Managing residential impact
- Development of energy policy and guidelines to better manage equipment during unoccupied times
- Fully Managed Software Program - Utility bill management/tracking





Benefits – Financial Estimates

- Year-One Energy Savings:
 - ~\$990,000
- Year-One O&M Savings:
 - ~\$250,000
- 20-Year Total Lifecycle Savings:
 - ~\$37,000,000

*Annual Utility escalation based on California Energy Commission recommendations for Prop-39 of 4%

*California Energy Commission recommends O&M savings equal 2% of project price. Schneider Electric uses a conservative 1% for O&M Savings

Project Schedule/Next Steps

Milestone	Date
Board Presentation (Discussion/Action Item)	5/11/2022
Lighting Scope	
Procurement	Early Summer 2022
Install	August 2022 – May 2023
Commissioning	Summer 2023
Energy Management	
Summer Shutdown Implementation	Week of May 23rd
Energy Management Program Onsite/Remote – Training/Support	Ongoing

Thank You

Life Is On

Schneider
Electric