

Case Study

Alphonse D'Amato Federal Courthouse, 2017

Project Highlights The Numbers

- Power Savings kWh 939K (65%)

- Increase in Light Level +20%

- Annual Savings \$191K

- Rebate Qualified \$90K

- ROI 2.2 yr - 10 yr Total Savings \$1.5M

Atlantic Energy Concepts won the bid for the LED upgrades

By 2017 the original fluorescent fixtures were all needing new ballasts and tubes. This made it easy to justify a building-wide LED upgrade. The uncommon design of the many of the installed fixtures and cove lighting made the Stripit Kit one of the few retrofit systems able to fit the space envelope and meet all other requirements. The resulting performance surpassed expectations: cutting power by 65%; giving a 20% increase in light levels; and with an superior spectral distribution of the light.





RedBird LED, Inc. www.redbirdled.com 678-RED-BIRD (678-733-2473)



Alphonse D'Amato Federal Courthouse in Central Islip, NY opened in 2000 and is the third largest federal courthouse in the country. With 870,000 square feet it contains 23 courtrooms, 24 judge's chambers, and a large law library. The original lighting employed T8 fluorescent tubes, a common choice at the time.



A building-wide lighting upgrade program was completed in 2017 by Atlantic Energy Concepts. The goals were to reduce electricity consumption, improve the level and quality of light while eliminating all maintenance for the next decade. After careful review of all retrofit options AEC specified the RedBird LED Stripit Kit^R system to replace >6500 of the installed fluorescent tubes and ballasts. In addition, the need for Buy-American-Act compliance was for this Federal facility was another feature of the RedBird system that few other options met. The Stripit Kit's slim profile and universal design made for a rapid and trouble-free installation.

The high efficacy of the Stripit Kit meant only 12 watts were needed for each 4' Strip. Even at this low power level the resulting measured light levels showed an average increase of 20% over the original fluorescent output, while reducing energy consumption by 65%, a 22 watt saving for each 4' fluorescent tube replaced. With local electricity costing \$0.204/kWh, an on-time of 6,570 hrs/yr, this yields an annual savings of \$191K/year. With a utility rebate of \$90K the Return-On-Investment is 2.2 years. NET savings over the 10 year system lifetime is \$1,490,000.



Case Study

California College District Saves Over \$2.2M with RedBird LED Retrofit in First Major Proposition 39 Funded Project

Project Highlights The Numbers

Power Savings kWh/yr
Light Level Increase
First Year Savings
Utility Rebate
Return-on-Investment
Lifetime Savings (10 Year)

The Board of Directors of Rancho Santiago Community College District unanimously approved the use of Redbird LED their interior LED lighting retrofit project with Prop 39 funding. paid conversion to LED lighting will save the \$2,200,000 durina district over year product lifetime. In addition. Southern California Edison (SCE) providing the district over \$300,000 in rebates for this project.

11,200 Stripit Kits and Cardinal Tube lights were installed in the 700K ft² of classrooms, offices, gyms, and common areas. The RedBird retrofits cut power consumption by 75%, delivered 20% higher light levels with a more, balanced spectrum of light. Virtually every fluorescent tube on the campus was upgrade with the Redbird products.

"I've worked on many projects for RSCCD and this one delivered one of the fastest paybacks yet," said Scott Connors of Facilities Planning & Program Services, "I personally tested many products from different top LED light manufacturers and none of them came close to meeting Redbird's quality, light output, efficiency and 10 year warranty."

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"Being selected for the first Prop 39 funded lighting retrofit project in California speaks to the advantages of RedBird LED's products". Jonathan Eppstein, President of Redbird LED. "This is a high project giving real world validation of Stripit Kits' high quality efficacy which makes them the best LED retrofit solution for most fixtures. Our products have consistently had the highest efficacy of all LED systems **DesignLights** Consortium's Qualified Product List. This ensures that our customers get the best Return-On-Investment and qualify for the largest rebates based on energy while deploying a truly state-of-the-art lighting system."





Case Study

Mt Pleasant Elementary School District, San Jose, CA 2018

Project Highlights The Numbers

- Annual Savings kWhr 980K (74%)
- Increase in Light Level +15%
- Annual Cost Savings \$199,720
- Return-on-Investment **1.85 years**
- Lifetime Savings (10 Yr) \$1,277,718

Maintenance Staff Coordinated installation of the LED upgrades

All upgrades were completed during the 2 month summer break. Each school was completed in As the crew gained a week. experience they were able to complete upgrade each troffer in 15-20 minutes.





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Mount Pleasant Elementary School District has five campuses which have completed lighting upgrades using RedBird Stripit KitR and LX series volumetric retrofit products. With Mike Kelly, the district's head of Maintenance and Operations, RedBird worked to specify a range of products optimized for maximal energy each location throughout the various buildings. savings for California's Proposition 39 provided the funds for these See comments from Mr. Kelly on the following page.

The buildings ranged from 10 to 35 years old. In many areas the lighting was still using the obsolete T12 fluorescents. After installed, savings the upgrades were measured energy average power reduction confirmed 74% increase in light levels of 15% overall. Specifically, average per-fixture drop in power was 42 watts/fixture. With 7,400 fixtures on for 3,150 hrs/year yields an annual reduction of 980,000 kWh. At current rate of \$0.204/kWh this means an annual savings of \$199,720/yr, with a ROI for the entire District of 1.85 years. The additional cost savings from the reduction in maintenance and HVAC costs were not included in the calculation of ROI.

Over the ten year lifetime of the LED upgrades the total Net Savings to the District will be \$1,277,718.





Betty A. Martinez

Board of Trustees Antonio Perez Jr. Robert Ramirez

Brenda M. Serrano

Mariann Engle, Superintendent

May 8, 2019

To whom it may concern,

My name is Mike Kelly I am Chief of M&O for the Mount Pleasant Elementary School District. I was first introduced to the Redbird products by engineers that worked for Exon. Exon was going to install solar and upgrade my interior and exterior lighting using my Prop 39 moneys. The District ultimately decided not to install solar. So I contacted Jonathan Eppstein at Redbird. Jonathan has been great to work with; he is very knowledgeable and helped me retrofit four elementary and one Junior high school.

What I really like about the Redbird products is, how well made the product is and how easy and quick to install. If you have the manpower you can easily take on the project in house. I was able to completely change out a fixture in 20 minutes myself. I personally worked with the contractor; with two guys we averaged 2-3 classrooms a day. The whole school was completed in a week.

One of the sites we used The Simple Choice Troffer Kits, when we were done it looked like all new fixtures. I was very impressed with how easy they were to install and I would highly recommend using this product.

I have been working for schools going on 30 plus years and I would say this is the best return on investment of any project that I have done. It is going on two years and we have not had to touch one fixture.

Mike Kelly

Chief Of M&O