

6/26/19

LIGHTING RETROFIT PROPOSAL

[Steiner Electric]

Prepared for

Site Information

Name Village of Oak Park

Address

Proposal Date

Proposal Expires

Many businesses are searching for various means to reduce their operating expenses. In many cases, the search need not be any more tedious than simply looking at the something most of us take for granted – our lighting systems. By carefully analyzing the equipment and usage patterns of these systems, we can uncover hidden expenditures that are draining a company's resources. To assist you in disclosing these hidden costs, we are pleased to offer you this detailed analysis of your lighting system based on our preliminary audit of your facility with your team.

This proposal illustrates energy saving measures that we recommend and the financial benefits of investing in a lighting retrofit project at your facility. Please let me know if there are any questions you have about this proposal or any of the recommendations. We are looking forward to working with you.

Executive Summary

Project Costs

Total Project Cost	\$37,890
Sales Tax	\$0
Incentives / Rebates	\$25,000
Turnkey Project Cost	\$12,890

Financial Metrics

Payback Period (yrs)	0.5
Avg. Annual Return	210%
10 Yr Operating Savings	\$270,810
Net Present Value	\$195,026

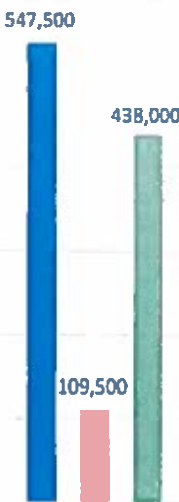
Cost of Waiting

Postpone for one month	\$2,257
Postpone for six months	\$13,540
Postpone for one year	\$27,081

Assumptions

Energy Rate (\$/kWh)	0.0500
Annual Utility Rate Increase	0.00%
Discount Rate	6.00%

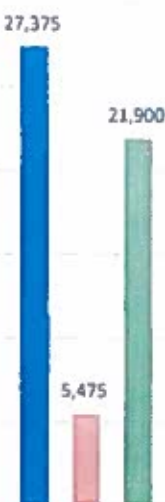
Usage (kWh)



Demand (kW)



Energy Cost (\$)



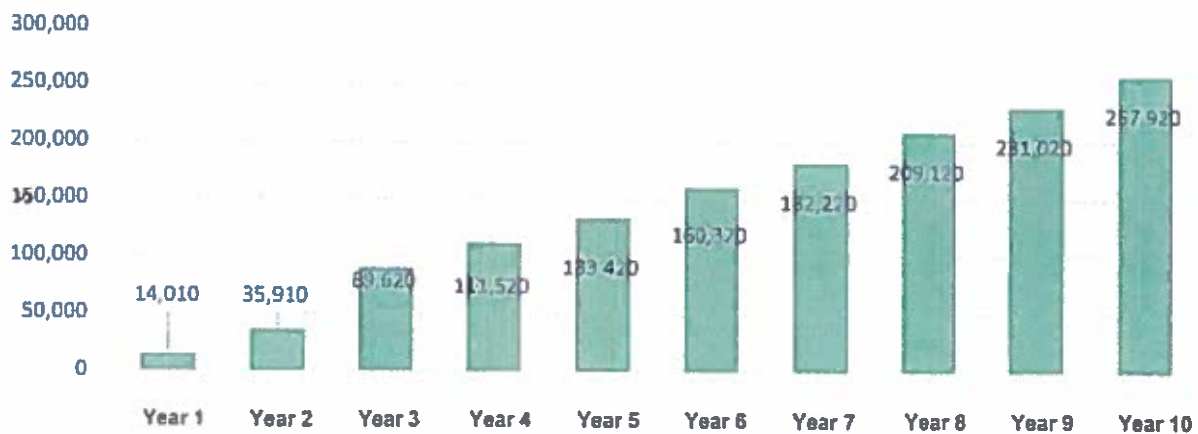
Maintenance Cost (\$)



Current Proposed Savings

Impact of New Lighting		Aggregate Operating Savings			
Energy Reduction	80%	Saving Area	Year 1	Year 5	Year 10
Avg. Annual Maintenance Savings	100%	Energy	\$21,900	\$109,500	\$219,000
Avg. Annual Operating Savings	83%	Maintenance	\$5,000	\$36,810	\$51,810
		Total	\$26,900	\$146,310	\$270,810

Aggregate Cash Flow Over Ten Years



Itemized Cash Flow

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Project Cost	\$(37,890)	-	-	-	-	-	-	-	-	-
Rebates	\$25,000	-	-	-	-	-	-	-	-	-
Energy Savings	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900
Maintenance Savings	\$5,000	\$0	\$31,810	\$0	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000
Net Cash Flow	\$14,010	\$21,900	\$53,710	\$21,900	\$21,900	\$26,900	\$21,900	\$26,900	\$21,900	\$26,900

Cash Flow

We understand that finalizing a project like this often takes time. However, each day you delay your upgrade, you are missing out on the opportunity to reduce your operating expenses. As shown below, the lost opportunity continues to compound over time.

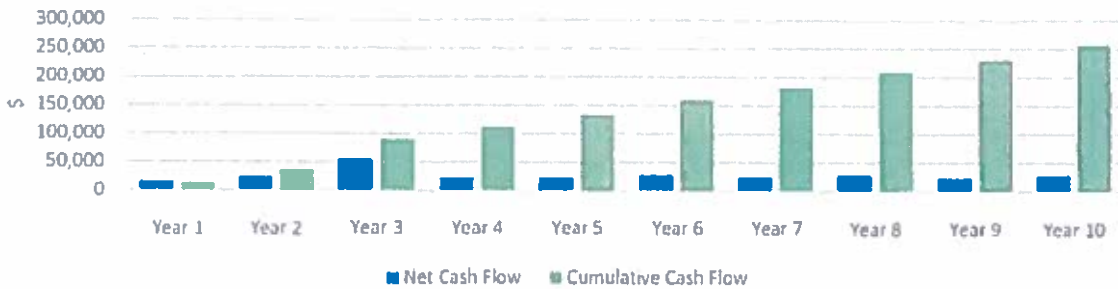
10 Year Cash Flow Analysis

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Project Cost	\$(37,890)										\$(37,890)
Rebates	\$25,000										\$25,000
Energy Savings	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$21,900	\$219,000
Maintenance Savings	\$5,000	\$0	\$31,810	\$0	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000	\$51,810
Net Cash Flow	\$14,010	\$21,900	\$53,710	\$21,900	\$21,900	\$26,900	\$21,900	\$26,900	\$21,900	\$26,900	\$257,920
Cum Cash Flow	\$14,010	\$35,910	\$89,620	\$111,520	\$133,420	\$160,320	\$182,220	\$209,120	\$231,020	\$257,920	\$257,920

10 Year Project Summary



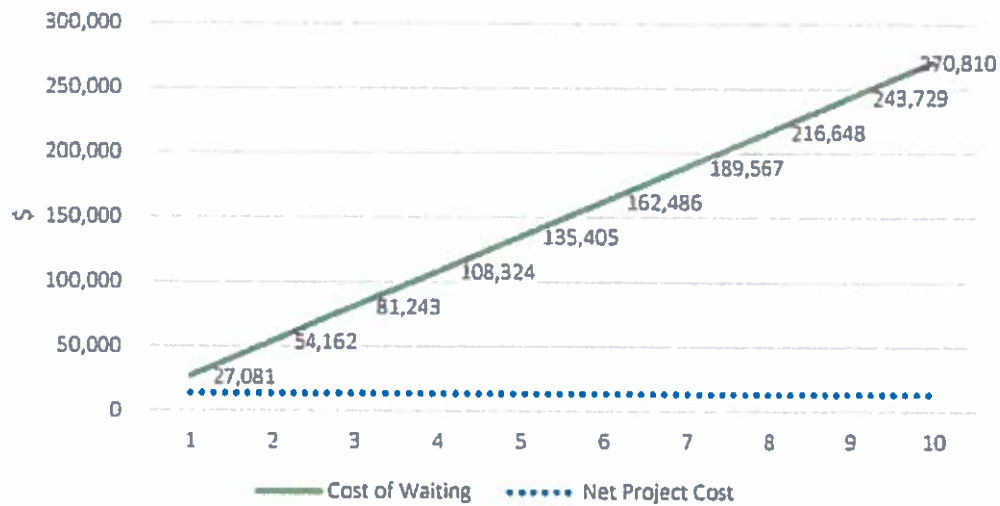
10 Year Net & Cumulative Cash Flow



Cost Of Waiting

The cost of waiting shows the amount of cash your company will be losing if you delay the proposed lighting upgrade.

Monthly	Yearly	10 Years
\$2,257	\$27,081	\$270,810



1. Cost of waiting includes energy savings and maintenance savings applied as an average annual amount over a 10 year analysis period

Energy Usage

The following set of information evaluates your current energy usages and costs and compares that to the projected energy usage and costs your facility will see after the proposed lighting upgrade.

Annual Energy Usage

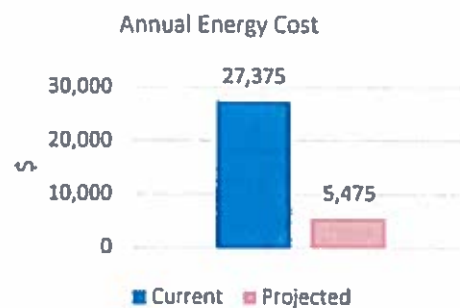
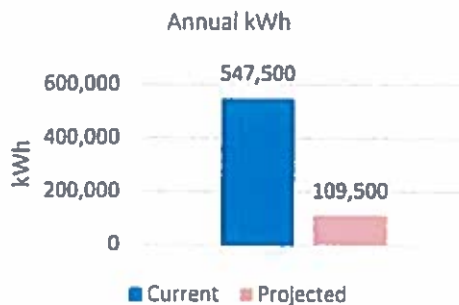
Current Usage (kWh)	Projected Usage (kWh)	Reduction	Current Cost	Projected Cost	Financial Savings	Percent Saved
547,500	109,500	80%	\$27,375	\$5,475	\$21,900	80%

1. Energy cost = \$0.0500/kWh; Annual energy cost escalation = 0.00%
2. Energy costs are averaged over 10 year analysis period
3. Projected Usage (kWh) includes savings from controls if applicable

Annual Energy Usage Reduction

Current Usage (kWh)	Projected Usage (kWh)	Reduction (kWh)	Reduction
547,500	109,500	438,000	80%

Energy Comparison



1. Energy Cost = \$0.0500/kWh; Annual energy cost escalation = 0.00%
2. Energy costs are averaged over 10 year analysis period

Watts Summary

Existing Watts	Proposed Watts	Reduced Watts	Reduction
125,000	25,000	100,000	80%

- The calculations in this table take into account the existing fixtures that are being replaced, upgraded, and/or have new lighting controls being proposed for them

Lighting Wattage Comparison

Exterior

Space	Existing Fixture	Qty	Watts	Total Watts	Proposed Solution	Qty	Watts	Total Watts	Burn Hours
Exterior	Decorative Outdoor/Mercury Vapor/100 0W/1 Lamp	100 0	125 0	125,00 0	Part No. 97968 A-Type/A23	100 0	25 0	25,000	4,380
Total			125.0	125,00 0			25.0	25,000	

Operational Overview

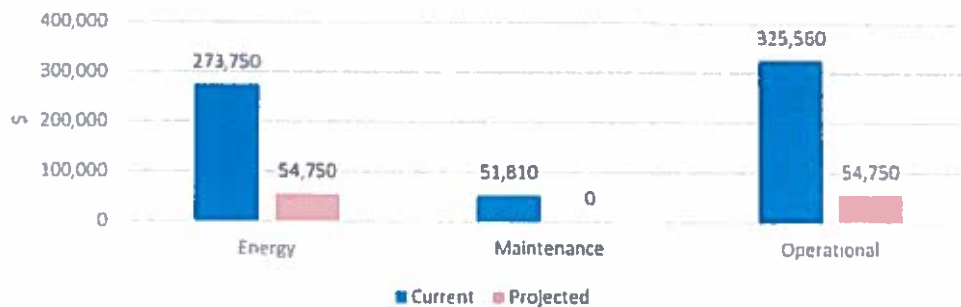
While energy is the largest long-term cost of lighting, the cost for maintaining your lighting system can also be a significant expense of your overall budget. Understanding the impact of longer lasting lighting systems on your maintenance costs is critical to understanding the true ROI of your project.

Operational Savings Summary

Operational Area	Current Annual	Projected Annual	Reduction	Current 10 Year	Projected 10 Year	Reduction
Energy	\$27,375	\$5,475	80%	\$273,750	\$54,750	80%
Maintenance	\$5,181	\$0	100%	\$51,810	\$0	100%
Total	\$32,556	\$5,475	83%	\$325,560	\$54,750	83%

1. Energy cost = \$0.0500/kWh; Annual energy cost escalation = 0.00%
2. Energy costs are averaged over 10 year analysis period
3. Maintenance costs are averaged over 10 year analysis period

10 Year Operational Comparison



1. Energy cost = \$0.0500/kWh; Annual energy cost escalation = 0.00%
2. Energy costs are averaged over 10 year analysis period
3. Maintenance costs are averaged over 10 year analysis period

Upgrade Analysis

Fixture Replacement by Space

Exterior

Space	Existing Fixture	Qty	Proposed Solution	Qty
Exterior	Decorative Outdoor/Mercury Vapor/100 0W/1 Lamp	1000	Part No. 97968 A-Type/A23	1000

Replacement by Fixture

Existing Fixture	Qty	Proposed Solution	Qty
Decorative Outdoor/Mercury Vapor/100 0W/1 Lamp	1000	Part No. 97968 A-Type/A23	1000

Bill Of Materials

The following tables break out the costs of material and installation fees that are included on your proposal.

Lamps

Manufacturer	Part Number	Description	Qty	Price	Extended
	97968	A23/LED	1000	\$37.89	\$37,890.00
Total:					\$37,890.00

Labor

Description	Qty	Price	Extended
Part No: 97968 A-Type/A23	1000	\$0.00	\$0.00
Total:			\$0.00



Summary of Proposed Product by Space

Proposed Solution

Exterior

Space	Space Ct	Proposed Solution	Qty Per Space
Exterior	1	Part No 97968 A-Type/A23	1000

Appendix

Financial Assumptions

Analysis Period (Years)	10
Payback Calculation Method	Cash Flow Payback
Cost of Capital	6.00%
Average Cost of Electricity	0.0500 \$/kWh
Annual Energy Inflation	0.00%
Annual Material Inflation	0.00%
Annual Service Inflation	0.00%
Product Tax Rate	0.00%
Service Tax Rate	0.00%

Schedules

Schedule Name	Hours/Week	Hours/Year
12 hours/day, 7 days a week	84	4,380
9 hours a day, 7 days a week	63	3,285
Continuous (24x7)	168	8,760
Dusk to Dawn	84	4,380
Weekdays (9-6)	45	2,346