



city of beech grove

**Department of
Public Works**

Brad Meriwether
DPW Director

February 21, 2017

5520 Churchman Ave.
Indianapolis, IN 46203

Office: 317.803.9091
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Dennis Buckley, Mayor
Dave Harrison, Board of Works
Sandy Seward, Board of Works
Dan McMillan, Clerk Treasurer
Craig Wiley, City Attorney

Re: Emerson Avenue LED Light Replacement

Dear Board,

It is my recommendation to the Board of Works that the City of Beech Grove approve a proposal to install LED light bulbs on Emerson Avenue from Churchman Avenue to the railroad tracks just north of Albany. The proposal from JE Brown Electric is in the amount of \$9,644.00, and would encompass switching all of the median and sidewalk lights from their current inefficient metal halide lamps to LED lamps.

There has been a Return on Investment study done and the average annual savings from this project would be \$8,548.31. This estimated annual savings amount means the project would take 1.13 years to pay back the initial investment. The Redevelopment Commission has agreed to donate \$4,000 dollars to the project. Also, the City has applied for a rebate with IPL that, if approved, could see roughly \$3,000 back in savings.

Respectfully,

Brad Meriwether
Director of Public Works



TREE CITY USA

www.beechgrove.com

J E Brown Electric, Inc.5307 Senour Road
Indianapolis, IN 46239**Proposal****Proposal Date:** 12/06/2016**Proposal #:** 14572**Project:****Bill To:**City of Beech Grove
ATTN: Accounts Payable
806 Main Street
Beech Grove, IN 46107

Description	Est. Hours/Qty.	Rate	Total
Change out 38 - 250W Metal Halide lamps and ballast in center of Emerson from Churchman Ave. to the railroad tracks just north of Albany St. to 54W LED. Change out 21- 175W Metal Halide lamps and ballast along Emerson sidewalk from Churchman to railroad tracks just north of Albany St. to 45W LED lamps. These lamps have a 5 year warranty and a expected life of 50K hours.		5,786.00	5,786.00
All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements are contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by workman's compensation insurance. Note: This proposal may be withdrawn by us if not accepted within 15 days due		3,858.00	3,858.00
Please review and reply via e-mail to approve this estimate to Don Brown:don@jebrownelectric.net		Total	\$9,644.00

Phone:
317-449-1466



Project Title:	Beech Grove - Light Poles
Contact Information:	John Feltner - CED Indianapolis
Cost / kWh (estimated)	\$0.12
Inflation Rate (estimated)	3.00%

Proposed LED Replacement

<i>Installation Definition</i>		LED
Fixture Model		Satco S9394
Input Watts / Luminaire (estimated)		54
Fixture Quantity (estimated)		38
Operating Hours / Day		10
Fixture Model		Satco S9673
Input Watts / Luminaire (estimated)		45
Fixture Quantity (estimated)		21
Operating Hours / Day		10
<i>Power Calculations</i>		
Total kW (estimated)		2.997
Total kW SAVED (estimated)		6.503
Annual Operating Hours (365 days) (estimated)		3650
Annual kWh (estimated)		10939
Annual kWh SAVED (estimated)		23736
<i>Replacement Installation Costs</i>		
Cost / Luminaire (estimated)		\$85.22
Installation Costs (estimated)		\$78.23
Rebate Per Fixture (estimated)		\$0.00
Total Investment (estimated)		\$9,643.55
<i>Replacement Maintenance Costs</i>		
Life Span (estimated)		50000
Array Maintenance (estimated)		\$0.00
Driver Maintenance (estimated)		\$0.00
Labor (estimated)		\$0.00
Total Maintenance Costs/year (estimated)		\$0.00
<i>Annual Cost Summary</i>		
Total System Cost (estimated)		\$9,643.55
Annual Energy Cost (estimated)		\$1,312.69
Annual Maintenance Cost (estimated)		\$0.00

Existing Installation

<i>Traditional</i>	
250W MH	
250	
38	
10	
175W MH	
175	
21	
10	
<i>Power Calculations</i>	
9.5	
3650	
34675	
<i>Existing Installation Costs</i>	
<i>Existing Maintenance Costs</i>	
20000	
\$25.00	
\$50.00	
\$75.00	
\$5,700.00	
<i>Annual Cost Summary</i>	
\$0.00	
\$4,161.00	
\$5,700.00	

<i>Payback Analysis</i>	
Annual Energy Savings (estimated)	\$2,848.31
Annual Maintenance Savings (estimated)	\$5,700.00
Combined Annual Savings (estimated)	\$8,548.31
Simple Payback (yrs) (estimated)	1.13

Subnote - *DOES NOT INCLUDE DISPOSAL FEE*