

## Memorandum

**To:** Programs, Projects and Operations Subcommittee

**Re:** Lighting retrofit/replacement contract

**Date:** October 2, 2007

**From:** Jim Becic

Over the last several months – during and after the writing of the District’s White Paper - an energy audit was completed by OPPD and follow-up meetings were subsequently held with their lighting contractor – *Superior Lighting Incorporated*. Both OPPD and their sole source, pre-approved contractor’s personnel agreed to spend a considerable amount of time reviewing our facilities with both myself and Jerry Herbster to determine methods of reducing our energy consumption needs.

Following these meetings, and numerous follow-up phone conversations, we have been presented with what staff considers to be a very reasonable cost for the retrofit and/or replacement of ALL (over 330) of the lights in the main headquarters building as well as the shop with more efficient ones. Not only more efficient – but better light quality - similar to those installed in our new Dakota County Building. The quote also includes twenty new LED exit sign fixtures, and motion/sound sensors in the bathrooms, storage, maintenance shop, hallways and areas of minimal usage.

This proposal from *Superior Lighting Incorporated* - to complete this entire retrofit/replacement is: **\$17,050.00**. This quote is for a “turn key” cost to include materials, labor AND certified recycling of all of the existing lights to a mercury recovery facility in Des Moines.

Jerry Herbster (NRD Building and Site Manager) has indicated that there are sufficient funds in his building maintenance budget to accommodate this quote.

As a final plus - the energy usage – based upon our cost per kilowatt hour from OPPD and averaging the previous three years of consumption – indicates that once this work is completed, a payback period will be less than 4 years!! OR, a return on our \$17,050.00 investment of 25.28%!

Once an agreement is finalized, it will take approximately 4 – 6 weeks to order the materials and another two weeks to complete the work.

It is understood that approval of this agreement technically does not need to go before the Board (less than \$20,000.00) but it was felt that this would be an opportunity for the entire Board to begin to see the results of their “New Environmental Direction”- White Paper.

**Therefore, it is the staff recommendation that the Subcommittee recommend to the Board to approve the 17 September, 2007 proposal by *Superior Lighting Incorporated* in the amount of \$17,050.00 to retrofit/replace the lighting in the Natural Resources Center and the Operations and Maintenance Shop.**



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**Proposal submitted by: Rick Swarbrick**

**Cell 618-9465**

**Date: 9/17/2007**

**Proposal Submitted to:**  
PAPIO-MISSOURI RIVER NRD  
8901 S 154TH STREET  
OMAHA NE68138

**Job Name & Location:**  
SAME

**ATTN: JIM BECIC**

*We hereby submit specifications and estimates for:*

Superior to supply all materials and labor to complete the following lighting upgrade.

1. Retrofit (7) 1x8 2 lamp strip fixtures with a 2 lamp conversion 4' kit with HP electronic ballast and T8 3500K lamps
2. Retrofit (60) 1x4 2 lamp T12 fixtures to Low watt electronic ballast and T8 3500K lamps.
3. Remove (22) 400 watt High Pressure Sodium fixtures and install (22) new 6 lamp T8 High bay fixtures with 5000K lamps.
4. Retrofit (99) 2x4 4 lamp troffer fixtures with low watt electronic ballast and T8 3500K lamps.
5. Retrofit (17) 2x2 2 lamp T12 U fixtures to Low watt electronic ballast and T8 U6 3500K lamps.
6. Retrofit (64) 2x4 3 lamp T12 fixture to Low watt electronic ballast and T8 3500K lamps.
7. Relamp (50) recessed can fixtures with 50PAR30/H/FL lamps.
8. Relamp (10) recessed can fixtures with R30 13 watt CFL lamps
9. Remove (5) 2x2 HID fixtures from conference room and install (5) new 2x2 2 lamp T8 fixtures.
10. Install (20) new LED exit signs as needed.
11. Install (8) wall sensors in Restrooms as directed.
12. Install ceiling sensor in lower level storage area as directed.
13. Install ceiling sensor in maintenance garage as directed.

**WARRANTY'S**

Electronic Ballast            5 years  
T8 Lamps                        2 years

See attached survey for work to be done.

Superior to dispose of all spent materials from lighting upgrade.

See attached for energy savings and ROI after lighting upgrade.

**We propose hereby to furnish material and labor - complete in accordance with above specifications for the sum of :**

**SEVENTEEN THOUSAND AND FIFTY DOLLARS**

**\$17,050.00**

**50% DUE UPON ACCEPTANCE REMAINDER DUE UPON COMPLETION.**

All material is guaranteed to be as specified. All work to be completed in a workmanship 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 contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workmen's Compensation Insurance. This proposal may be withdrawn by us if not accepted within 60 Days. Excavation policy: For all projects which require excavation, Superior Lighting Inc. will not be held responsible for any private lines which may be damaged during excavation. All public utility lines will be cleared prior to excavation, however, private lines (ie lines, sprinkler lines, private electrical lines, private drainage etc.) if damaged, will be the sole responsibility of the customer to repair if damage during excavation.

Rick Swarbrick

9/17/2007

\_\_\_\_\_  
Superior Signature

\_\_\_\_\_  
Date of Proposal

**Acceptance of Proposal** - The above prices, specifications and conditions are satisfactory and are hereby accepted.  
You are hereby authorized to do the work as specified. Payment will be as outlined above.

\_\_\_\_\_  
Customer Signature

\_\_\_\_\_  
Date of Acceptance

## Energy Usage Calculations

PAPIO-MISSIOURI RIVER NRD						
<b>Kwh Rate</b>	<b>0.067</b>	<b>Annual Hours of Operation</b>			<b>2600</b>	
<b>Current System</b>						
	<b>Current #</b>	<b>Current Watts per Fixture</b>	<b>Total Watts of Current System</b>	<b>Annual Hours of Operation</b>	<b>Kwh Rate</b>	<b>Annual Energy Cost</b>
<b>Type of Fixture</b>	<b>of Fixtures</b>	<b>Fixture</b>	<b>System</b>	<b>Operation</b>	<b>Rate</b>	<b>Cost</b>
1x8 2 lamp T12	7	158	1106	2600	0.067	\$ 192.67
1x4 2 lamp T12	60	72	4320	2600	0.067	\$ 752.54
400 watt HPS	22	460	10120	2600	0.067	\$ 1,762.90
2x4 4 lamp T12	99	184	18216	2600	0.067	\$ 3,173.23
2x2 2 lamp T12 U6	17	72	1224	2600	0.067	\$ 213.22
2x4 3 lamp T12	64	129	8256	2600	0.067	\$ 1,438.20
Rec Can 75wR30	50	75	3750	2600	0.067	\$ 653.25
Rec Can 75wR30	10	75	750	2600	0.067	\$ 130.65
2x2 HID enc	5	185	925	2600	0.067	\$ 161.14
Exit Sign	20	40	800	8760	0.067	\$ 469.54
<b>Total</b>	<b>354</b>		<b>49467</b>			<b>\$ 8,947.33</b>
<b>Proposed System</b>						
	<b>Proposed #</b>	<b>Proposed Watts per Fixture</b>	<b>Total Watts of Proposed System</b>	<b>Annual Hours of Operation</b>	<b>Kwh Rate</b>	<b>Annual Energy Cost</b>
<b>Type of Fixture</b>	<b>of Fixtures</b>	<b>Fixture</b>	<b>System</b>	<b>Operation</b>	<b>Rate</b>	<b>Cost</b>
1x8 2lamp HL T8 kit	7	74	518	2600	0.067	\$ 90.24
1x4 2 lamp T8 LW	60	49	2940	2600	0.067	\$ 512.15
2x4 6 lamp T8 High bay	22	221	4862	2600	0.067	\$ 846.96
2x4 4 lamp T8 LW	99	99	9801	2600	0.067	\$ 1,707.33
2x2 2 lamp T8 U6	17	49	833	2600	0.067	\$ 145.11
2x4 3 lamp T8 LW	64	73	4672	2600	0.067	\$ 813.86
Rec Can Halogen	50	50	2500	2600	0.067	\$ 435.50
Rec Can CFL	10	15	150	2600	0.067	\$ 26.13
2x2 2 lamp T8 U6 new fix	5	49	245	2600	0.067	\$ 42.68
LED Exit Sign	20	1.5	30	8760	0.067	\$ 17.61
				2600	0.067	\$ -
						\$ 4,637.57
<b>Total</b>	<b>354</b>		<b>26551</b>			
	49467.00		<b>Annual Savings</b>			<b>\$ 4,309.76</b>
<b>Project Cost</b>			<b>\$ 17,050.00</b>			
<b>Payback Period</b>			<b>3.96 years</b>			
<b>Return on Investment</b>			<b>25.28%</b>			

