

PROJECT COST ANALYSIS

AC LIGHTING VS VERTICAL SOLAR BOLLARDS

APPLICATION: PATHWAY 2M WIDE (6FT)
 DISTANCE: 1.5KM LONG (1 MILE)
 ILLUMINATION: 0.85 LUX AVERAGE

AC POWERED

AC Powered 14w Luminaire + Pole

| Product Supply - Luminaire + Pole | |
|---|--------------------|
| Pole Spacing in meters | 58 |
| Pole Height Meters | 7 |
| WE-EF LED Luminaire | \$1,500 |
| Street Pole | \$1,000.00 |
| Pole powder coating | \$400.00 |
| Number of fittings over the 1.5Km pathway | 26 |
| TOTAL PRODUCT supply cost for 26 Systems | \$75,400.00 |

| Installation of pole + Foundation cost | |
|---|--------------------|
| ROUGH- Concrete Costs / pole | \$60.00 |
| ROUGH- Hole size L x W x H | 400 x 400 x 1000 |
| Rebar | \$50.00 |
| Labour cost per pole | \$350.00 |
| TOTAL Installation cost for 26 Poles + Foundations | \$11,960.00 |

| Trenching / Reticulation + Cable installation cost | |
|--|---------------------|
| Equipment hire | \$2,200.00 |
| Trenching cost \$195/m x 1.5km | \$292,500.00 |
| Total Earthworks and Cable cost | \$294,700.00 |

| 20 Year Maintenance + Electricity Costs | |
|--|---------------------|
| 20 year electrical costs + Maintenance - \$380 / pole / Year | \$197,600.00 |
| 20 year battery replacement battery cost | \$0.00 |
| TOTAL PRICE INSTALLATION | \$197,600.00 |
| TOTAL ESTIMATED COST SUPPLY + INSTALL | \$579,660.00 |

ARCHITECTURAL SOLAR BOLLARD

1.5m Vertical Bollard + 6W Luminaire

| Product Supply - Luminaire + Pole | |
|---|------------------|
| Pole Spacing in meters | 27 |
| Pole Height Meters | 1.5 |
| Pole + Power vPS-M15-XX-XX-FN-BKA | \$2,450.00 |
| Luminaire VBL-L6-XXXX-XX-BKA-VS | \$270.00 |
| Black anodise | \$0.00 |
| Number of fittings over the 1.5Km pathway | 56 |
| TOTAL PRODUCT supply cost for 56 Systems | \$152,320 |

| Installation of pole + Foundation cost | |
|---|----------------|
| Installation concrete CBM | \$30 |
| Hole size L x W | 450x450x600 |
| Labour in hrs man 1 per bollard | \$25 |
| Labour in hrs man 2 per bollard | \$25 |
| TOTAL Installation cost for 26 Poles + Foundations | \$4,480 |

| Trenching / Reticulation + Cable installation cost | |
|--|---------------|
| Equipment hire 1 week | \$0.00 |
| Trenching costs | \$0.00 |
| Total Earthworks and Cable cost | \$0.00 |

| 20 Year Maintenance + Electricity Costs | |
|--|---------------------|
| 20 year electrical costs | \$0.00 |
| 20 year maintenance costs (\$25 / pole / year) | \$28,000.00 |
| 20 year battery replacement including labour | \$25,000 |
| TOTAL PRICE INSTALLATION | \$58,480.00 |
| TOTAL ESTIMATED COST SUPPLY + INSTALL | \$215,280.00 |

**YOU WILL SAVE \$364,380
 WHICH IS AROUND 60% BY GOING SOLAR**

Notes

1. AC powered lighting maintenance includes Electricity charges as well as pole and luminaire maintenance
2. Batteries will need to be replaced only once over a 20 year period which is shown in the above example
3. Most regions and countries will have different electrical standards, Trenching, cable and labour requirements (add and subtract where necessary to suit local conditions)

©2014-2015 Valen Light, LLC. All rights reserved.