

Assumptions

Fixture Costs

| | | |
|-------------------------|---------|----------------------------------|
| Cobra Heads | \$250 | Cobra Head (including photocell) |
| Decorative Post-Top | \$1,200 | New Fixture |
| Town & Country Post-Top | \$100 | LED Bulb |

Energy and Labor Rates

| | |
|--------------------------------------|--------|
| Energy Rate (\$ per kWh - FY14/FY15) | \$0.23 |
| In-house Labor Rate (\$ per Hr) | \$48 |

Other

| | |
|---------------------------------|---|
| Streetlight Burn Hours per year | 4,270 |
| Projected Maintenance Savings | 0% *Realized maintenance savings will shorten the payback period* |

Executive Summary

| | | Upfront Costs | | | Annual Savings | | | Payback (years) | | IRR | |
|---|---------------|------------------|-----------------|------------------|------------------|-------------|------------------|------------------|------------------|------------|------------|
| | | Fixture | Installation | Total Cost | Utility Costs | Maintenance | Total | Electricity only | Inc. Maintenance | 10 year | 20 year |
| Return Analysis (Full Rollout) | | | | | | | | | | | |
| Cobra Heads | 1,791 | \$447,750 | \$43,053 | \$490,803 | \$85,447 | \$0 | \$85,447 | 5.7 | 5.7 | 12% | 17% |
| Decorative Post-Top | 130 | \$156,000 | \$3,125 | \$159,125 | \$20,064 | \$0 | \$20,064 | 7.9 | 7.9 | 4% | 11% |
| Town & Country Post-Top | 73 | \$7,300 | \$1,755 | \$9,055 | \$10,080 | \$0 | \$10,080 | 0.9 | 0.9 | 111% | 111% |
| All Lights | 1,994 | \$611,050 | \$47,933 | \$658,983 | \$115,591 | \$0 | \$115,591 | 5.7 | 5.7 | 12% | 17% |
| <i>Note: 2 fixtures on inventory were already switched to LEDs (Total Fixtures 1,996)</i> | | | | | | | | | | | |
| Return Analysis (Year 1 Proposal) | | | | | | | | | | | |
| | Number | | | | | | | | | | |
| High Traffic Locations | 214 | \$53,500 | \$5,144 | \$58,644 | \$14,722 | \$0 | \$14,722 | 4.0 | 4.0 | 22% | 25% |
| Town & Country Post-Top | 73 | \$7,300 | \$1,755 | \$9,055 | \$10,246 | \$0 | \$10,246 | 0.9 | 0.9 | 111% | 111% |
| Total - Year 1 Proposal | 287 | \$60,800 | \$6,899 | \$67,699 | \$24,968 | \$0 | \$24,968 | 2.7 | 2.7 | 35% | 37% |

Return Analysis Details - Cobra Heads

Cobra Head Specific Assumptions

Installation Time per Fixture (Hrs) 0.25 Hours per crew
 Staff per installation crew 2

Return Analysis

| | Number | Upfront Costs | | | Annual Savings | | | Payback (years) | |
|-----------------|--------|---------------|--------------|------------------|----------------|-------------|-----------------|------------------|------------------|
| | | Fixture | Installation | Total Cost | Utility Costs | Maintenance | Total | Electricity only | Inc. Maintenance |
| All Cobra Heads | 1,791 | \$447,750 | \$43,053 | \$490,803 | \$85,447 | \$0 | \$85,447 | 5.7 | 5.7 |

Details

| Fixture Type | Number | Current Setup (Annual) | | | LEDs (Annual) | | | Savings (Annual) | |
|----------------------|--------------|------------------------|----------------|------------------|---------------|----------------|-----------------|------------------|-----------------|
| | | Wattage | kWh | Utility Costs | Wattage | kWh | Utility Costs | kWh | Utility Costs |
| Sodium Vapor (58w) | 843 | 58 | 208,777 | \$48,193 | 20 | 71,992 | \$16,618 | 136,785 | \$31,575 |
| Sodium Vapor (64w) | 1 | 64 | 273 | \$63 | 20 | 85 | \$20 | 188 | \$43 |
| Sodium Vapor (83w) | 749 | 83 | 265,453 | \$61,275 | 30 | 95,947 | \$22,148 | 169,506 | \$39,128 |
| Sodium Vapor (88w) | 8 | 88 | 3,006 | \$694 | 30 | 1,025 | \$237 | 1,981 | \$457 |
| Sodium Vapor (100w) | 14 | 100 | 5,978 | \$1,380 | 50 | 2,989 | \$690 | 2,989 | \$690 |
| Sodium Vapor (101w) | 7 | 101 | 3,019 | \$697 | 50 | 1,495 | \$345 | 1,524 | \$352 |
| Sodium Vapor (117w) | 125 | 117 | 62,449 | \$14,415 | 50 | 26,688 | \$6,160 | 35,761 | \$8,255 |
| Sodium Vapor (119w) | 9 | 119 | 4,573 | \$1,056 | 50 | 1,922 | \$444 | 2,652 | \$612 |
| Sodium Vapor (171w) | 11 | 171 | 8,032 | \$1,854 | 50 | 2,349 | \$542 | 5,683 | \$1,312 |
| Sodium Vapor (188w) | 2 | 188 | 1,606 | \$371 | 50 | 427 | \$99 | 1,179 | \$272 |
| Sodium Vapor (193w) | 7 | 193 | 5,769 | \$1,332 | 50 | 1,495 | \$345 | 4,274 | \$987 |
| Sodium Vapor (215w) | 5 | 215 | 4,590 | \$1,060 | 50 | 1,068 | \$246 | 3,523 | \$813 |
| Sodium Vapor (286w) | 1 | 286 | 1,221 | \$282 | 50 | 214 | \$49 | 1,008 | \$233 |
| High Pressure Sodium | 2 | 250 | 2,135 | \$493 | 50 | 427 | \$99 | 1,708 | \$394 |
| Incandescent | 7 | 92 | 2,750 | \$635 | 45 | 1,345 | \$310 | 1,405 | \$324 |
| Total | 1,791 | 75.79 | 579,631 | \$133,798 | 27.39 | 209,465 | \$48,351 | 370,166 | \$85,447 |

Return Analysis Details - Decorative and Town & Country Fixtures

Decorative / Town & Country Specific Assumptions

Installation Time per Fixture (Hrs) 0.25 Hours per crew
 Staff per installation crew 2

Return Analysis

| | Number | Upfront Costs | | | Annual Savings | | | Payback (years) | |
|----------------------------|------------|------------------|----------------|------------------|-----------------|-------------|-----------------|------------------|------------------|
| | | Fixture | Installation | Total Cost | Utility Costs | Maintenance | Total | Electricity only | Inc. Maintenance |
| Decorative (Acorn) | 130 | \$156,000 | \$3,125 | \$159,125 | \$20,064 | \$0 | \$20,064 | 7.9 | 7.9 |
| Town and Country | 73 | \$7,300 | \$1,755 | \$9,055 | \$10,080 | \$0 | \$10,080 | 0.9 | 0.9 |
| All Post Top Lights | 203 | \$163,300 | \$4,880 | \$168,180 | \$30,144 | \$0 | \$30,144 | 5.6 | 5.6 |

Details

| Fixture Type | Number | Current Setup | | | LEDs (Annual) | | | Savings (Annual) | |
|--------------------------------------|------------|---------------|----------------|-----------------|---------------|---------------|----------------|------------------|-----------------|
| | | Wattage | kWh | Utility Costs | Wattage | kWh | Utility Costs | kWh | Utility Costs |
| Sodium Vapor (141w) (Town & Country) | 49 | 141 | 29,501 | \$6,810 | 18 | 3,766 | \$869 | 25,735 | \$5,941 |
| Metal Halide (Decorative - Acorn) | 3 | 92 | 1,179 | \$272 | 45 | 576 | \$133 | 602 | \$139 |
| Metal Halide (Decorative - Acorn) | 8 | 95 | 3,245 | \$749 | 45 | 1,537 | \$355 | 1,708 | \$394 |
| Metal Halide (Decorative - Acorn) | 95 | 215 | 87,215 | \$20,132 | 50 | 20,283 | \$4,682 | 66,932 | \$15,450 |
| Metal Halide (Decorative - Acorn) | 3 | 325 | 4,163 | \$961 | 45 | 576 | \$133 | 3,587 | \$828 |
| Mercury Vapor (Decorative - Acorn) | 20 | 200 | 17,080 | \$3,943 | 45 | 3,843 | \$887 | 13,237 | \$3,056 |
| Mercury Vapor (Decorative - Acorn) | 1 | 250 | 1,068 | \$246 | 50 | 214 | \$49 | 854 | \$197 |
| Mercury Vapor (Town & Country) | 24 | 200 | 20,496 | \$4,731 | 25 | 2,562 | \$591 | 17,934 | \$4,140 |
| Total | 203 | 189.14 | 163,947 | \$37,844 | 38.48 | 33,357 | \$7,700 | 130,589 | \$30,144 |

Return Analysis Details - High Traffic Streets and Town & Country Post-Top Locations

High Traffic Locations Specific Assumptions

Installation Time per Fixture (Hrs) 0.25 Hours per crew
 Staff per installation crew 2

Return Analysis

| | Number | Upfront Costs | | | Annual Savings | | | Payback (years) | |
|-------------------------|------------|-----------------|----------------|-----------------|-----------------|-------------|-----------------|------------------|------------------|
| | | Fixture | Installation | Total Cost | Utility Costs | Maintenance | Total | Electricity only | Inc. Maintenance |
| High Traffic Streets | 214 | \$53,500 | \$5,144 | \$58,644 | \$14,722 | \$0 | \$14,722 | 4.0 | 4.0 |
| Town & Country Post-Top | 73 | \$7,300 | \$1,755 | \$9,055 | \$10,246 | \$0 | \$10,246 | 0.9 | 0.9 |
| Total | 287 | \$60,800 | \$6,899 | \$67,699 | \$24,968 | \$0 | \$24,968 | 2.7 | 2.7 |

Details

| Street | Fixture Type | Number | Current Setup (Annual) | | | LEDs (Annual) | | | Savings (Annual) | | |
|------------------------------------|----------------|------------|------------------------|----------------|-----------------|---------------|---------------|----------------|------------------|-----------------|-----------------|
| | | | Wattage | kWh | Utility Costs | Wattage | kWh | Utility Costs | kWh | Utility Costs | Fixture Cost |
| WHITE PLAINS PO (Post Road) (117W) | Cobra Head | 72 | 117 | 35,970 | \$8,303 | 50 | 15,372 | \$3,548 | 20,598 | \$4,755 | \$18,000 |
| WHITE PLAINS PO (Post Road) (193W) | Cobra Head | 4 | 193 | 3,296 | \$761 | 50 | 854 | \$197 | 2,442 | \$564 | \$1,000 |
| HEATHCOTE RD (83W) | Cobra Head | 29 | 83 | 10,278 | \$2,372 | 30 | 3,715 | \$858 | 6,563 | \$1,515 | \$7,250 |
| HEATHCOTE RD (101W) | Cobra Head | 3 | 101 | 1,294 | \$299 | 30 | 384 | \$89 | 910 | \$210 | \$750 |
| HEATHCOTE RD (193W) | Cobra Head | 1 | 193 | 824 | \$190 | 30 | 128 | \$30 | 696 | \$161 | \$250 |
| MAMARONECK RD (83W) | Cobra Head | 66 | 83 | 23,391 | \$5,399 | 30 | 8,455 | \$1,952 | 14,936 | \$3,448 | \$16,500 |
| MAMARONECK RD (188W) | Cobra Head | 2 | 188 | 1,606 | \$371 | 30 | 256 | \$59 | 1,349 | \$311 | \$500 |
| WEAVER ST (117W) | Cobra Head | 26 | 117 | 12,989 | \$2,998 | 30 | 3,331 | \$769 | 9,659 | \$2,230 | \$6,500 |
| WEAVER ST (171W) | Cobra Head | 11 | 171 | 8,032 | \$1,854 | 30 | 1,409 | \$325 | 6,623 | \$1,529 | \$2,750 |
| Town and Country (SV 141W) | Town & Country | 49 | 141 | 29,501 | \$6,810 | 18 | 3,766 | \$869 | 25,735 | \$5,941 | \$4,900 |
| Town and Country (MV 200W) | Town & Country | 24 | 200 | 20,496 | \$4,731 | 18 | 1,845 | \$426 | 18,651 | \$4,305 | \$2,400 |
| | | 287 | 120.51 | 147,678 | \$34,089 | 32.24 | 39,515 | \$9,121 | 108,163 | \$24,968 | \$60,800 |