

Appendix X. Cost Benefit Analysis

| Development Cost | Cost per Unit | Quantity | Cost | Sub-Total |
|--------------------------------|----------------------|-----------------|-------------|------------------|
| Hardware | 0.00 | 0 | 0.00 | 0.00 |
| Software | 0.00 | 0 | 0.00 | 0.00 |
| <i>Developers</i> | | | | |
| Programmer | 0.00 | 4 | 0.00 | 0.00 |
| Total Development Cost | | | | |
| | | | | 0.00 |
| | | | | |
| Installation Cost | Cost per Unit | Quantity | Cost | Sub-Total |
| <i>Hardware</i> | 0.00 | 0 | 0.00 | |
| <i>Software</i> | 0.00 | 0 | 0.00 | |
| <i>Supplies</i> | | | | |
| Bond Paper | 285.00 | 7 | 1,995.00 | |
| Printer Ink Cartridge | 500.00 | 9 | 4,500.00 | |
| Ring Bind | 50.00 | 15 | 750.00 | 7,245.00 |
| Training | 0.00 | 1 | 0.00 | |
| Total Installation Cost | | | | |
| | | | | 7,245.00 |
| Total System Cost | | | | |
| | | | | 7,245.00 |

| Existing System | | | | |
|---------------------------------------|------------------|----------|--------------|----------------------|
| | Cost per Unit | Quantity | Cost | Sub-Total |
| <i>Salaries</i> | | | | |
| Executives | 87,000.00 | 3 | 261,000.00 | |
| Managers | 56,000.00 | 7 | 392,000.00 | |
| Supervisors | 34,000.00 | 25 | 850,000.00 | |
| Staff | 21,000.00 | 37 | 777,000.00 | 2,280,000.00 |
| Office Supplies | | | 12,500.00 | |
| <i>Utilities</i> | | | | |
| Electricity | | | 65,000.00 | |
| Internet | | | 22,000.00 | |
| Telecom Network | | | 15,000.00 | |
| Telephone | | | 3,500.00 | 105,500.00 |
| Total Monthly Operational Cost | | | | 2,385,500.00 |
| Total Annual Operational Cost | | | | 28,626,000.00 |
| | | | | |
| | | | | |
| Proposed System | | | | |
| Operational Cost | Cost per Unit | Quantity | Cost | Sub-Total |
| Operational Cost | 2,384,000.00 | 1 | 2,384,000.00 | 2,384,000.00 |
| Total Monthly Operational Cost | | | | 2,384,000.00 |
| Total Annual Operational Cost | | | | 28,608,000.00 |
| | | | | |
| Annual Benefits | 18,000.00 | | | |

| Payback Period | | | |
|----------------------|------------------------------|----------|----------|
| | | | |
| = | System Cost | | |
| | Annual Benefits | | |
| | | | |
| = | 7,245.00 | | |
| | 18,000.00 | | |
| | | | |
| = | 0.4025 | | |
| | | | |
| = | 4.83 | | |
| | | | |
| Return on Investment | | | |
| | | | |
| = | Total Benefits - Total Costs | | |
| | Total Costs | | |
| | | | |
| = | 18,000.00 | - | 7,245.00 |
| | | 7,245.00 | |
| | | | |
| = | 10,755.00 | | |
| | 7,245.00 | | |
| | | | |
| = | 1.48447205 | | |
| or | 1.48 | | |
| = | 148.00% | | |

| | | Cost | | | Benefits | | |
|------|-----------|---------------|---------------|------------------|-----------|-----------|---------------------|
| Year | PVIF (8%) | Costs | PV | Cumulative Costs | Benefits | PV | Cumulative Benefits |
| 0 | 1 | 7,245.00 | 7,245.00 | 7,245.00 | 0.00 | 0.00 | 0.00 |
| 1 | 0.93 | 28,608,000.00 | 26,488,888.89 | 26,496,133.89 | 18,000.00 | 16,666.67 | 16,666.67 |
| 2 | 0.86 | 28,608,000.00 | 24,526,748.97 | 51,022,882.86 | 18,000.00 | 15,432.10 | 32,098.77 |
| 3 | 0.79 | 28,608,000.00 | 22,709,952.75 | 73,732,835.61 | 18,000.00 | 14,288.98 | 46,387.75 |
| 4 | 0.74 | 28,608,000.00 | 21,027,734.03 | 94,760,569.64 | 18,000.00 | 13,230.54 | 59,618.28 |
| 5 | 0.68 | 28,608,000.00 | 19,470,124.10 | 114,230,693.74 | 18,000.00 | 12,250.50 | 71,868.78 |

| Net Present Value | | | |
|-------------------|------------------------|---|---------------------|
| = | PV of CumBenefit at Y5 | - | PV of CumCost at Y5 |
| = | 71,868.78 | - | 114,230,693.74 |
| = | -114,158,824.96 | | |