

## ATTACHMENT A

### SCOPE OF WORK

CTS has completed the initial design services and solicited pricing from contracting trades for the projects included within the Scope of Work below.

CTS will provide final AS-Built drawings and facilitate all Occupancy Permits which require stamped documents by an engineer or architect registered in State of Illinois.

The Scope of Work will be installed in a neat and workmanlike manner in accordance with local codes and ASHRAE standards.

#### **General Requirements:**

CTS will meet the Village intention to have a complete turnkey installation. The bond provided for the construction of the project only covers the performance of materials and workmanship for the completion of said construction work, not the energy guarantee. As-built drawings and O&M manuals will be prepared and submitted before final payment. CTS will provide Owner Training on systems installed.

#### **Lighting Upgrades**

Scope of Services to include the following:

CTS has included replacement of the T-12 lighting with T-8 fluorescent fixtures in all facilities listed below to improve lighting levels, reduce energy consumption and reduce maintenance costs throughout the Village

- Village Hall
- Civic Center
- Recreation Center

See the attached table identifying the lighting being replaced in each facility listed above. Note: We have identified all of the areas outside of the T-12 lighting fixtures that are not being replaced by indicating a "0" under the Quantity column.

Bldg #	SYSTEM INFORMATION				EXISTING SYSTEM				PROPOSED SYSTEM						SAVINGS		
	BUILDING	LOCATION	EXISTING EQUIP	QTY	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	SERIAL DTY	CONDEN DESCRIPTION	CONDEN %	SENS kWh SAVINGS	kWh Reduced
1	Exc Bldg	Recreation Bldg, Room 109 - Classroom	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	2	148	1.184	2705	43	0.244	2705	3274.52	0		0%	0	0.840	5.111
2	Exc Bldg	Recreation Bldg, Room 120 - Classroom (Emergency)	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	1	148	0.248	2705	43	0.245	2705	3274.52	0		0%	0	0.206	3.20
3	Exc Bldg	Recreation Bldg, Room 123 - Classroom	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	4	148	0.792	4806	43	0.112	4806	629.62	0		0%	0	0.410	2.60
4	Exc Bldg	Recreation Bldg, Room 125 - Classroom	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	2	148	0.296	4806	43	0.088	4806	583.16	0		0%	0	0.210	1.80
5	Exc Bldg	Recreation Bldg, Room 129 - Office	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	1	148	0.248	4806	43	0.013	4806	281.02	0		0%	0	0.306	0.5
6	Exc Bldg	Recreation Bldg, Room 129 - Office	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	1	148	0.248	4806	43	0.020	4806	302.20	0		0%	0	0.106	0.5
7	Exc Bldg	Recreation Bldg, Room 136 - Mechanical Room	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	2	24	0.242	4806	43	0.128	4806	313.548	0		0%	0	0.180	0.3
8	Exc Bldg	Recreation Bldg, Room 133 - Electrical Closet	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	2	24	0.248	4806	43	0.048	4806	40.326	0		0%	0	0.062	0.3
9	Exc Bldg	Recreation Bldg, Room 133 - Electrical Closet	Refrigerator 1.44, 450W, 120V, 60Hz, 2000 BTU/hr	1	24	0.248	4806	43	0.042	4806	38.68	0		0%	0	0.058	0.27

Proj #	SYSTEM INFORMATION				EXISTING SYSTEM						PROPOSED SYSTEM						SAVINGS	
	BUILDING	LOCATION	EXISTING TURE	QTY	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	WATTS EACH	TOTAL kW	OP HOUR	TOTAL kWh	CONTROL DESCRIPTION	OFF %	SEMI-KWH SAVINGS	kWh	kWh	
10	Rec. Building	Reception Building, Lake Level - Corridor	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	7	280	2240	2000	448000	45	0.200	2000	448000		0%	0	0.117	1.051	
11	Rec. Building	Reception Building, Lake Level - Corridor	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	4	280	1120	2000	224000	45	0.170	2000	224000		0%	0	0.116	1.081	
12	Rec. Building	Reception Building, Lake Level - Corridor	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	3	0	0	1	0	0	0.000	1	0		0%	0	0.000	0	
13	Rec. Building	Reception Building, Room 1123 - Storage	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	8	280	2240	2000	448000	45	0.144	2000	224000		0%	0	0.248	1.031	
14	Rec. Building	Reception Building, Room 1123 - Storage	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	3	280	840	2000	168000	45	0.140	2000	168000		0%	0	0.000	0.212	
15	Rec. Building	Reception Building, Room 1123 - Storage	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	1	0	0	2000	0	0	0.000	2000	0		0%	0	0.000	0.24	
16	Rec. Building	Reception Building, Room 1123 - Storage	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	1	0	0	2000	0	0	0.000	2000	0		0%	0	0.000	0.24	
17	Rec. Building	Reception Building, Room 1123 - Storage	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	8	280	2240	2000	448000	45	0.144	2000	224000		0%	0	0.000	1.111	
18	Rec. Building	Reception Building, Room 1123 - Storage	One (1) 1' x 4' x 8' Fluorescent, 40W, 120V, 1000 HOUR	1	0	0	2000	0	0	0.000	2000	0		0%	0	0.000	0.24	

Ref. #	BUILDING	LOCATION	SYSTEM INFORMATION		EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS			
			EXISTING FIXTURE	QTY	WATTS EACH	TOTAL kW	OP HOUR	TOTAL kWh	WATTS EACH	TOTAL kW	OP HOUR	TOTAL kWh	SEN. QTY	CONTROL DESCRIPTION	OFF W	SENS. kWh SAVINGS	kWh Reduced	kWh Reduced	
29	Rec. Building	Recreation Building, Room 1115 - Women's Locker Room	GridTuffex 2' x 4', 2x F34T12 (24W), Avg 15 Ballast, 120/277V, Fluorescent Lens	8	74	0.444	4005	2332.854	81	0.152	4800	3229.943	0			0%	0	0.188	894
30	Rec. Building	Recreation Building, Room 1115 - Women's Locker Room	GridTuffex 2' x 4', 2x F34T12 (24W), Avg 15 Ballast, 120/277V, Fluorescent Lens, Emergency Tether	1	74	0.122	8700	1334.71	81	0.129	3720	1130.54	0			0%	0	0.032	215
31	Rec. Building	Recreation Building, Room 1115 - Women's Locker Room	See Fixture or Spare Part included in Project	4	0	0.000	0	0	0	0.000	1	0	0	0	0%	0	0.000	0	
32	Rec. Building	Recreation Building, Room 1115 - Women's Locker Room	See New Fixture 2' x 4', 2x F34T12 (24W), Avg 15 Ballast, 120/277V	2	74	0.148	4800	711.280	81	0.086	4800	423.360	0			0%	0	0.062	290
33	Rec. Building	Recreation Building, Room 1115 - Women's Locker Room	See New Fixture 2' x 4', 2x F34T12 (24W), Avg 15 Ballast, 120/277V	1	68	0.207	4800	1018.80	80	0.120	4800	574.72	0			0%	0	0.087	418
34	Rec. Building	Recreation Building, Room 1114 - Women's Locker Room Storage	Industrial Hooped Fixture, 1' x 4', 2x F34T12 (24W), Avg 15 Ballast, 120/277V	1	74	0.074	780	57.72	81	0.081	780	33.44	0			0%	0	0.012	24
35	Rec. Building	Recreation Building, Room 1112 - Men's Locker Room	GridTuffex 2' x 4', 2x F34T12 (24W), Avg 15 Ballast, 120/277V, Fluorescent Lens	5	74	0.170	4800	1716.00	81	0.215	4800	1033.23	0			0%	0	0.175	765
36	Rec. Building	Recreation Building, Room 1112 - Men's Locker Room	GridTuffex 2' x 4', 2x F34T12 (24W), Avg 15 Ballast, 120/277V, Fluorescent Lens, Emergency Tether	1	74	0.221	8700	1944.72	81	0.129	3720	1130.54	0			0%	0	0.095	395
37	Rec. Building	Recreation Building, Room 1112 - Men's Locker Room	See Fixture or Spare Part included in Project	4	0	0.000	0	0	0	0.000	1	0	0	0	0%	0	0.000	0	

Proj. #	BUILDING	LOCATION	SYSTEM INFORMATION			EXISTING SYSTEM					PROPOSED SYSTEM					SAVINGS		
			EXISTING FEATURE	QTY	NEW FEATURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OF HOUR	TOTAL KWH	SEMI QTY	CONTROL DESCRIPTION	OFF %	SEMI-KWH SAVINGS	KW Reduced
22	Rec. Building	Recreation Building, Room L112 - Men's Locker Room	See Spec Table 1.4.2.1 (2) F54712, 200V, 1000W, 120V/277V, 1200W/277V	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	74	0.148	4800	711.308	421	0.086	411.716	0		0%	0	0.052	2.47562.779
23	Rec. Building	Recreation Building, Room L111 - Men's Locker Room	See Spec Table 1.4.2.1 (2) F54712, 200V, 1000W, 120V/277V, 1200W/277V	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	65	0.107	4800	596.842	42	0.128	578.71	0		0%	0	0.050	421
24	Rec. Building	Recreation Building, Room L111 - Men's Locker Room Storage	Individual Parallel Fixture 1 F54712, 120V/277V, 1000W, 120V/277V, 1200W/277V	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	74	0.148	3600	57.71	43	0.041	33.14	0		0%	0	0.053	24
25	Rec. Building	Recreation Building, Room L107 - Vending	Grid Type, 3 x 4, 2x F54712, 120V/277V, 1000W, 120V/277V, 1200W/277V	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	74	0.148	3600	55.624	42	0.041	308.438	0		0%	0	0.052	340
26	Rec. Building	Recreation Building, Room L106 - Storage	Individual Parallel Fixture 1 F54712, 120V/277V, 1000W, 120V/277V, 1200W/277V	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	74	0.148	3600	57.71	43	0.041	33.14	0		0%	0	0.053	24
27	Rec. Building	Recreation Building, Room L113 - Storage (Planned Locker Office)	Grid Type, 3 x 4, 2x F54712, 120V/277V, 1000W, 120V/277V, 1200W/277V	3	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	74	0.148	3600	173.16	43	0.129	160.03	0		0%	0	0.050	71
28	Rec. Building	Recreation Building, Room L119 - Men's Locker	Individual Parallel Fixture 1 F54712, 120V/277V, 1000W, 120V/277V, 1200W/277V	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	74	0.148	3600	711.308	42	0.086	411.716	0		0%	0	0.052	247
29	Rec. Building	Recreation Building, Room L120 - Women's Restroom	Grid Type, 3 x 4, 2x F54712, 120V/277V, 1000W, 120V/277V, 1200W/277V	7	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	74	0.148	4800	155.168	43	0.049	308.438	1	Using 200V, 28000 Hour Factor 3 Year Warranty, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V	30%	63.4514	0.401	2.1
30	Rec. Building	Recreation Building, Room L120 - Women's Restroom	See Spec Table 1.4.2.1 (2) F54712, 200V, 1000W, 120V/277V, 1200W/277V	4	RETRO. FLUORESCENT, 45W, LP BALLAST, 28.4 TUBE WHITE, 3000HOURS, 4000K, 320-277V, 28000 HOUR FACTOR USE 3-YEAR WARRANTY	74	0.148	4800	1442.576	43	0.132	802.432	1	Using 200V, 28000 Hour Factor 3 Year Warranty, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V, 30-20 15-70V/277V	30%	347.9925	0.124	844

Req. #	SYSTEM INFORMATION			EXISTING SYSTEM					PROPOSED SYSTEM					SAVINGS						
	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FEATURE/RETROFIT	WATTS EACH	TOTAL kW	UP HOUR	TOTAL kWh	TOTAL kW	WATTS EACH	TOTAL kWh	OP HOUR	TOTAL kWh	SEPL QTY	CONTROL DESCRIPTION	OFF %	SEPL kWh SAVINGS	40% OFF SEPL SAVINGS	
37	Rec. Building	Recreation Building, Room 1120 - Women's Restroom	400 WATT BALLAST, 3' x 4' 3/4" FLUORESCENT, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	2	NEW: 400W/850LM, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	80	0.220	4800	903.220	80	0.220	4800	4375	384.00	2	Test in with timer on 300perhour	30%	225.144	0.028	294
38	Rec. Building	Recreation Building, Room 1122 - Men's Restroom	2' x 4' 3/4" FLUORESCENT, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	2	NEW: 400W/850LM, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	70	0.074	4800	258.000	70	0.074	4800	4825	226.028	2	Test in with timer on 300perhour	30%	61.3774	0.033	211
39	Rec. Building	Recreation Building, Room 1122 - Men's Restroom	400 WATT BALLAST, 3' x 4' 3/4" FLUORESCENT, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	3	NEW: 400W/850LM, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	70	0.210	4800	1278.22	70	0.210	4800	4925	1653.29	3	Test in with timer on 300perhour	30%	399.917	0.135	1095
40	Rec. Building	Recreation Building, Room 1122 - Men's Restroom	400 WATT BALLAST, 3' x 4' 3/4" FLUORESCENT, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	1	NEW: 400W/850LM, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	80	0.029	4800	121.519	80	0.029	4800	4825	173.21	1	Test in with timer on 300perhour	30%	17.072	0.012	187
41	Rec. Building	Recreation Building, Room 1120 - Lobby	This fixture is specified in Project	1	SEP: Not included in project	0	0.000	1	0.000	0	0.000	1	0	0	0		0%	0	0.000	0
42	Rec. Building	Recreation Building, Room 1120 - Lobby	This fixture is specified in Project	1	SEP: Not included in project	0	0.000	1	0.000	0	0.000	1	0	0	0		0%	0	0.000	0
43	Rec. Building	Recreation Building, Room 1120 - Storage	See fixture, 3' x 4' 3/4" FLUORESCENT, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	4	NEW: 400W/850LM, 4000K, 100-277V, 2800HOUR, 3500LM, 50% (1000) (1000)	70	0.296	1800	493.76	70	0.296	1800	1800	126.36	0		0%	0	0.000	97
44	Rec. Building	Recreation Building, Corridor (Under Tracks)	This fixture is specified in Project	22	SEP: Not included in project	0	0.000	1	0.000	0	0.000	1	0	0	0		0%	0	0.000	0
45	Rec. Building	Recreation Building, Corridor (Under Tracks)	This fixture is specified in Project	10	SEP: Not included in project	0	0.000	1	0.000	0	0.000	1	0	0	0		0%	0	0.000	0

Bldg #	SYSTEM INFORMATION				EXISTING SYSTEM							PROPOSED SYSTEM							SAVINGS	
	Building	Location	Existing Feature	City	Watts Each	Total kW	Watts Each	Total kW	Watts Each	Total kW	Watts Each	Total kW	Watts Each	Total kW	Control Description	Off %	Sens. kWh Savings	WTE Reduced	WTE	
46	Rec. Building	Recreation Building, Main Corridor	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	1	24	1772.23	4000	40	0.115	4000	3532.22	0	0		0%	0	0.125	745		
47	Rec. Building	Recreation Building, Main Corridor	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	3	24	551.96	4000	35	0.172	4000	1508.72	0	0		0%	0	0.174	1,085		
48	Rec. Building	Recreation Building, Main Corridor	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	1	0	0	4000	0	0.000	4000	0	0	0		0%	0	0.000	0		
49	Rec. Building	Recreation Building, Office	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	1	0	0	4000	0	0.000	4000	0	0	0		0%	0	0.000	0		
50	Rec. Building	Recreation Building, Room 110 - Rector	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	1	0	0	4000	0	0.000	4000	0	0	0		0%	0	0.000	0		
51	Rec. Building	Recreation Building, Room 120 - Meeting Room	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	1	0	0	4000	0	0.000	4000	0	0	0		0%	0	0.000	0		
52	Rec. Building	Recreation Building, Room 130 - Meeting Room	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	4	0	0	4000	0	0.000	4000	0	0	0		0%	0	0.000	0		
53	Rec. Building	Recreation Building, Room 140 - Storage	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	1	24	82.72	4000	43	0.421	4000	15.34	0	0		0%	0	0.452	24		
54	Rec. Building	Recreation Building, Room 150 - Women's Restroom	Ball Hoops, 3' x 6' 1/2" (4000) 2000, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR, 120-270V, 2000K HOUR	1	24	1100.515	4000	42	0.129	4000	859.274	1	0		0%	185.923	0.165	171		

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS			
REF #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	WATTS EACH	TOTAL kW	OP HOUR	TOTAL kWh	SEN QTY	CONTROL DESCRIPTION	OFF %	SENS. kWh SAVINGS	kWh Reduced	kWh Reduced
55	Rec. Building	Recreation Building, Room 107 - Women's Restroom	Grid Tether, 2 x 4', 2x F34T12, 13440, Mag ES Ballast, 120/277V, Prismatic Lens, Emergency Ballast	1	RETRO. FLUORESCENT, 43W, LP BALLAST, 2x 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.074	8760	648.74	43	0.043	8760	376.62	1	Tied in with sensor on another line	30%	111.004	0.021	18%
56	Rec. Building	Recreation Building, Room 108 - Men's Restroom	Grid Tether, 2 x 4', 2x F34T12, 13440, Mag ES Ballast, 120/277V	1	RETRO. FLUORESCENT, 43W, LP BALLAST, 2x 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.074	4876	350.952	43	0.043	4876	208.474	1	Existing Mount, Pasco Infrared, Occupancy Range, 2-15' N/A, 10-20' Radii Coverage, Line Voltage 120/277V	30%	103.462	0.021	28%
57	Rec. Building	Recreation Building, Room 108 - Men's Restroom	Grid Tether, 2 x 4', 2x F34T12, 13440, Mag ES Ballast, 120/277V, Prismatic Lens, Emergency Ballast	1	RETRO. FLUORESCENT, 43W, LP BALLAST, 2x 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.074	8760	648.74	43	0.043	8760	376.62	1	Tied in with sensor on another line	30%	111.004	0.021	18%
58	Rec. Building	Recreation Building, Room 105 - Classroom	Grid Tether, 2 x 4', 2x F34T12, 13440, Mag ES Ballast, 120/277V, Prismatic Lens	8	RETRO. FLUORESCENT, 43W, LP BALLAST, 2x 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 5-YEAR WARRANTY	352	0.352	3768	3052.56	43	0.344	3768	1274.52	0		0%	0	0.003	1.223
59	Rec. Building	Recreation Building, Room 105 - Classroom	Grid Tether, 2 x 4', 2x F34T12, 13440, Mag ES Ballast, 120/277V, Prismatic Lens, Emergency Ballast	1	RETRO. FLUORESCENT, 43W, LP BALLAST, 2x 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 5-YEAR WARRANTY	352	0.352	8760	3052.56	43	0.344	8760	276.88	0		0%	0	0.075	0.57
60	Rec. Building	Recreation Building, Room 105 - Classroom	Grid Tether, 2 x 4', 2x F34T12, 13440, Mag ES Ballast, 120/277V	2	RETRO. FLUORESCENT, 43W, LP BALLAST, 2x 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.148	3768	548.54	43	0.086	3768	160.62	0		0%	0	0.052	0.20
61	Rec. Building	Recreation Building, Room 105 - Classroom	Site, Fixture or Space Not Included in Project	2	SNP, Not included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
62	Rec. Building	Recreation Building, Room 102 - Classroom	Grid Tether, 2 x 4', 2x F34T12, 13440, Mag ES Ballast, 120/277V, Prismatic Lens	8	RETRO. FLUORESCENT, 43W, LP BALLAST, 2x 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 5-YEAR WARRANTY	352	0.352	3768	3052.56	43	0.344	3768	1274.52	0		0%	0	0.000	1.221
63	Rec. Building	Recreation Building, Room 102 - Classroom	Grid Tether, 2 x 4', 2x F34T12, 13440, Mag ES Ballast, 120/277V, Prismatic Lens, Emergency Ballast	1	RETRO. FLUORESCENT, 43W, LP BALLAST, 2x 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 5-YEAR WARRANTY	352	0.352	8760	3052.56	43	0.344	8760	276.48	0		0%	0	0.075	0.57



SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM								SAVINGS		
Ref. #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN. QTY.	CONTROL DESCRIPTION	OPT. %	SENS. KWH SAVINGS	KWH Reduced	KWH Reduced
64	Rec. Building	Recreation Building, Room 102 - Classroom	Site Fixtures or Space Not Included in Project	1	N/A. Not included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
65	Rec. Building	Recreation Building, Playroom - Indoor Playground	Grid Trough, 2' x 4', 3x FS4712, (3490), Mag ES Ballast, 320/277V, Fluorescent Lens	8	RETRO, FLUORESCENT, 41W, LP BALLAST, 2x4 TUBE, WHITE, SEDDEDENCE, 4000K, 110-277V, 20000 HOUR RATED LIFE, 5 YEAR WARRANTY	128	0.944	4800	4510.94	45	0.344	4800	1631.68	0		0%	0	0.670	2.224
66	Rec. Building	Recreation Building, Playroom - Indoor Playground	Grid Trough, 2' x 4', 3x FS4712, (3490), Mag ES Ballast, 320/277V, Fluorescent Lens, Emergency Ballast	1	RETRO, FLUORESCENT, 41W, LP BALLAST, 2x4 TUBE, WHITE, SEDDEDENCE, 4000K, 110-277V, 20000 HOUR RATED LIFE, 5 YEAR WARRANTY	128	0.318	8700	1031.68	45	0.343	8700	309.88	0		0%	0	0.075	957
67	Rec. Building	Recreation Building, Room 120 - Classroom	Grid Trough, 2' x 4', 3x FS4712, (3490), Mag ES Ballast, 320/277V, Fluorescent Lens	8	RETRO, FLUORESCENT, 41W, LP BALLAST, 2x4 TUBE, WHITE, SEDDEDENCE, 4000K, 110-277V, 20000 HOUR RATED LIFE, 5 YEAR WARRANTY	128	0.744	3705	3493.50	45	0.344	3705	1274.50	0		0%	0	0.200	2.223
68	Rec. Building	Recreation Building, Room 124 - Classroom	Grid Trough, 2' x 4', 3x FS4712, (3490), Mag ES Ballast, 320/277V, Fluorescent Lens, Emergency Ballast	1	RETRO, FLUORESCENT, 41W, LP BALLAST, 2x4 TUBE, WHITE, SEDDEDENCE, 4000K, 110-277V, 20000 HOUR RATED LIFE, 5 YEAR WARRANTY	128	0.318	8700	1031.68	45	0.343	8700	309.88	0		0%	0	0.075	957
69	Rec. Building	Recreation Building, Room 124 - Classroom	Site Fixtures or Space Not Included in Project	2	N/A. Not included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
70	Rec. Building	Recreation Building, Room 124 - Classroom	Grid Trough, 2' x 4', 3x FS4712, (3490), Mag ES Ballast, 320/277V, Fluorescent Lens	8	RETRO, FLUORESCENT, 41W, LP BALLAST, 2x4 TUBE, WHITE, SEDDEDENCE, 4000K, 110-277V, 20000 HOUR RATED LIFE, 5 YEAR WARRANTY	128	0.744	3705	3493.50	45	0.344	3705	1274.50	0		0%	0	0.200	2.223
71	Rec. Building	Recreation Building, Room 127 - Classroom	Grid Trough, 2' x 4', 3x FS4712, (3490), Mag ES Ballast, 320/277V, Fluorescent Lens, Emergency Ballast	1	RETRO, FLUORESCENT, 41W, LP BALLAST, 2x4 TUBE, WHITE, SEDDEDENCE, 4000K, 110-277V, 20000 HOUR RATED LIFE, 5 YEAR WARRANTY	128	0.318	8700	1031.68	45	0.343	8700	309.88	0		0%	0	0.075	957
72	Rec. Building	Recreation Building, Room 127 - Classroom	Site Fixtures or Space Not Included in Project	2	N/A. Not included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS			
Ref. #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN. QTY	CONTROL DESCRIPTION	OFF %	SENS. KWH SAVINGS	KWH Reduced	KWH Net/Used
73	Rec. Building	Recreation Building, Room 117 - Classroom	Site Picture of Space Not Included in Project	1	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
74	Rec. Building	Recreation Building, Room 102 - Lobby	Site Picture of Space Not Included in Project	1	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
75	Rec. Building	Recreation Building, Room 101 - Lobby (East Ventrilux)	Site Picture of Space Not Included in Project	1	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
76	Rec. Building	Recreation Building, Room 103 - Lobby	Site this Fixture, 1' x 4', 2x 4x6/12/40, 40W, 400lm PAR38, 120V/277V	24	RETRO. FLUORESCENT, 12W, STANDARD OPER. 2x 4' T5 TUBE, WHITE, 1000/2500, 4000K, 120-277V, 10000 HOUR RATED LUX, 3-YEAR WARRANTY	240	3.430	4806	16659.324	122	2.700	4806	12936.624	0		0%	0	0.932	2.851
77	Rec. Building	Recreation Building, West End - Classrooms	Site Picture of Space Not Included in Project	50	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
78	Rec. Building	Recreation Building, West End - Classrooms	Grid Troffer, 2' x 2', 2x 324112, UPLUMEN 134W, Mag 10 2'x2'x10, 120V/277V, Prismatic Lens	36	RETRO. FLUORESCENT, 24W, UP BALLAST, 2x 2' TUBE, TROPEN RESTRAINT KIT, WHITE REFLECTOR, 350 DEGREE, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	2.270	3762	8225.1	24	1.020	3702	3779.1	0		0%	0	3.290	4.437
79	Rec. Building	Recreation Building, West End - Classrooms	Site Picture of Space Not Included in Project	10	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
80	Rec. Building	Recreation Building, West End - Corridor	Site Picture of Space Not Included in Project	9	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
81	Rec. Building	Recreation Building, West End - Corridor	Site Picture of Space Not Included in Project	1	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0

REC #	BUILDING	LOCATION	EXISTING FEATURE	QTY	SYSTEM IDENTIFICATION				EXISTING SYSTEM				PROPOSED SYSTEM				SAVINGS		
					WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	QTY	CONTROL DESCRIPTION	ORE %
82	Rec. Building	Recreation Building - Gymnasium - Track	Increased Usable Area 44 Pallets (1000 lbs ea) 8000 WATER, 30000000, 3000, 100000, 3000 HOUR MATED USE, 3 YEAR WARRANTY	1	141	1.124	4801	3399.321	26	0.688	4801	2309.523	0	0%	0	0.056	1.45536453	0	1.399
81	Rec. Building	Recreation Building - Gymnasium - Track	Increased Usable Area 44 Pallets (1000 lbs ea) 8000 WATER, 30000000, 3000, 100000, 3000 HOUR MATED USE, 3 YEAR WARRANTY	1	141	0.889	4750	3378.48	26	0.616	4750	2870.16	0	0%	0	0.122	1.274	0	1.152
80	Rec. Building	Recreation Building - Gymnasium - Court Lighting	FOR THE FUTURE, 12' x 12' LED, 200 WATT, 3000 HOUR MATED USE, 3 YEAR WARRANTY	1	66	0.455	4801	2623.12	40	0.429	4801	2347.82	0	1%	0	0.124	1.145	0	1.021
84	Rec. Building	Recreation Building - Gymnasium - Court Lighting	FOR THE FUTURE, 12' x 12' LED, 200 WATT, 3000 HOUR MATED USE, 3 YEAR WARRANTY	1	66	0.339	4750	3209.88	40	0.368	4750	2508	0	0%	0	0.068	0.88	0	0.812
86	Rec. Building	Recreation Building - Gymnasium - Court Lighting	FOR THE FUTURE, 12' x 12' LED, 200 WATT, 3000 HOUR MATED USE, 3 YEAR WARRANTY	3	204	0.311	4874	1089.932	43	0.119	4874	2347.82	0	0%	0	0.068	0.88	0	0.812
87	Rec. Building	Recreation Building - Gymnasium - Court Lighting	FOR THE FUTURE, 12' x 12' LED, 200 WATT, 3000 HOUR MATED USE, 3 YEAR WARRANTY	3	204	0.214	4802	1744.73	43	0.129	4802	2320.04	0	0%	0	0.068	0.88	0	0.812
88	Rec. Building	Recreation Building - Gymnasium - Court Lighting	FOR THE FUTURE, 12' x 12' LED, 200 WATT, 3000 HOUR MATED USE, 3 YEAR WARRANTY	13	481	0.829	4801	4281.758	33	0.418	4801	2298.609	0	0%	0	0.175	2.282	0	2.107
89	Rec. Building	Recreation Building - Gymnasium - Main Floor	FOR THE FUTURE, 12' x 12' LED, 200 WATT, 3000 HOUR MATED USE, 3 YEAR WARRANTY	11	0	0.000	1	0	0	0.000	1	0	0%	0	0.000	0	0	0	0
90	Rec. Building	Recreation Building - Outdoor	FOR THE FUTURE, 12' x 12' LED, 200 WATT, 3000 HOUR MATED USE, 3 YEAR WARRANTY	1	2	0.000	1	0	0	0.000	1	0	0%	0	0.000	0	0	0	0

SYSTEM INFORMATION					EXISTING SYSTEM					PROPOSED SYSTEM							SAVINGS		
REF. #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN. DTY	CONTROL DESCRIPTION	OFF %	SENS. KWH SAVINGS	kWh Reduced	kWh Reduced
91	Rec. Building	Recreation Building, Outdoor	Sho. Future or Spare Not Included in Project	1	NA, Not Included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
92	Rec. Building	Recreation Building, Outdoor	Sho. Future or Spare Not Included in Project	5	NA, Not Included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
93	Rec. Building	Recreation Building, 1st & 2nd Level Outdoor	Sho. Future or Spare Not Included in Project	21	NA, Not Included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
94	Civic Center	Civic Center, Room 109 - Exhibition Hall	Sho. New Fixture 1' x 5', 3x 30012, 32W Mag ES Ballast, 120/277V	50	RETRO, FLUORESCENT, 40W, LF BALLAST, 2x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	60	0.950	2540	1014.6	40	0.400	2340	930	0		0%	0	0.290	979
95	Civic Center	Civic Center, Room 109 - Exhibition Hall	Sho. New Fixture 1' x 4', 2x 30012, 32W, Mag ES Ballast, 120/277V	20	RETRO, FLUORESCENT, 40W, LF BALLAST, 2x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	72	1.400	2390	1463.2	40	0.800	2340	2011.4	0		0%	0	0.620	1.751
96	Civic Center	Civic Center, Room 109 - Exhibition Hall (Cover)	Sho. Future or Spare Not Included in Project	52	NA, Not Included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
97	Civic Center	Civic Center, Room 109 - Electrical Closet	Industrial Housed Fixture, 1' x 4', 2x 30012, 32W, Mag ES Ballast, 120/277V	1	RETRO, FLUORESCENT, 40W, LF BALLAST, 2x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.674	2340	175.16	40	0.643	2340	106.02	0		0%	0	0.031	72
98	Civic Center	Civic Center, Room 109 - Electrical Closet	Industrial Housed Fixture, 1' x 4', 2x 30012, 32W, Mag ES Ballast, 120/277V, Emergency Ballast	1	RETRO, FLUORESCENT, 40W, LF BALLAST, 2x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.676	8760	640.34	40	0.643	8760	376.68	0		0%	0	0.011	171
99	Civic Center	Civic Center, Room 120 - Storage Closet	Industrial Housed Fixture, 1' x 4', 2x 30012, 32W, Mag ES Ballast, 120/277V	2	RETRO, FLUORESCENT, 40W, LF BALLAST, 2x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.948	760	115.40	40	0.698	780	67.08	0		0%	0	0.040	48

SYSTEM INFORMATION				EXISTING SYSTEM				PROPOSED SYSTEM						SAVINGS		
REF #	BUILDING	LOCATION	EXISTING FEATURE	ITR	NEW FEATURE/RETROFIT	WATTS EACH	TOTAL W/ HOUR	WATTS EACH	TOTAL W/ HOUR	W/ HOUR	TOTAL W/ HOUR	CONTROL DESCRIPTION	OFF %	SENS. W/ HOUR SAVINGS	W/ HOUR REDUCED	SAVINGS
			CITY													
186	Civic Center	Room 102 - Janitor closet	120V Fluorescent 40W 100 Watt, 40W 100 Watt, 40W 100 Watt, 40W 100 Watt	1	120V Fluorescent 40W 100 Watt, 40W 100 Watt, 40W 100 Watt, 40W 100 Watt	45	340	0	0	0	340		0%	0	0	0
187	Civic Center	Room 103 Vestibule	120V Fluorescent 40W 100 Watt	1	120V Fluorescent 40W 100 Watt	0	0	0	0	0	0		0%	0	0	0
188	Civic Center	Room 102 - Entrance Lobby	120V Fluorescent 40W 100 Watt	2	120V Fluorescent 40W 100 Watt	0	0	0	0	0	0		0%	0	0	0
189	Civic Center	Room 102 - Entrance Lobby	120V Fluorescent 40W 100 Watt	4	120V Fluorescent 40W 100 Watt	0	0	0	0	0	0		0%	0	0	0
190	Civic Center	Room 102 - Entrance Lobby	120V Fluorescent 40W 100 Watt	4	120V Fluorescent 40W 100 Watt	0	0	0	0	0	0		0%	0	0	0
191	Civic Center	Room 102 - Entrance Lobby	120V Fluorescent 40W 100 Watt	3	120V Fluorescent 40W 100 Watt	0	0	0	0	0	0		0%	0	0	0
192	Civic Center	Room 105 Lobby (Wait Area)	120V Fluorescent 40W 100 Watt	12	120V Fluorescent 40W 100 Watt	121	146	121	146	121	146		0%	0	0	0
193	Civic Center	Room 105 Lobby	120V Fluorescent 40W 100 Watt	11	120V Fluorescent 40W 100 Watt	0	0	0	0	0	0		0%	0	0	0
194	Civic Center	Room 105 Lobby (Wait Area)	120V Fluorescent 40W 100 Watt	11	120V Fluorescent 40W 100 Watt	0	0	0	0	0	0		0%	0	0	0
195	Civic Center	Room 105 Lobby (Wait Area)	120V Fluorescent 40W 100 Watt	10	120V Fluorescent 40W 100 Watt	0	0	0	0	0	0		0%	0	0	0

PRJ #	BUILDING	LOCATION	SYSTEM INFORMATION				EXISTING SYSTEM					PROPOSED SYSTEM					SAVINGS	
			EXISTING Fixture	QTY	NEW FEATURE/PROFIT	WATTS EACH	TOTAL HW	OP HOUR	TOTAL KWH	TOTAL WATTS EACH	TOTAL HW	OP HOUR	TOTAL KWH	SEF. QTY	CONTROL DESCRIPTION	OFF %	SERV. KWH SAVINGS	42%K
118	Civic Center	Civic Center, Room 105 - Lobby (Northside)	Sup. Fixture or Spare Not Included in Project	2	Sup. Not Included in project	6	0	0	0	0	0	0	0		0%	0	0.000	0
126	Civic Center	Civic Center, Room 105 - Lobby (Northside)	Sup. Fixture or Spare Not Included in Project	2	Sup. Not Included in project	7	0	0	0	0	0	0	0		0%	0	0.000	0
122	Civic Center	Civic Center, Room 107 - Roundly Room	Wts. Fixture or Spare Not Included in Project	4	Wts. Not Included in project	6	0	0	0	0	0	0	0		0%	0	0.000	0
117	Civic Center	Civic Center, Room 107 - Roundly Room	Wts. Fixture or Spare Not Included in Project	4	Wts. Not Included in project	6	0	0	0	0	0	0	0		0%	0	0.000	0
115	Civic Center	Civic Center, Room 107 - Roundly Room	Wts. Fixture or Spare Not Included in Project	4	Wts. Not Included in project	6	0	0	0	0	0	0	0		0%	0	0.000	0
114	Civic Center	Civic Center, Room 107 - Roundly Room (Refresh)	Wts. Fixture or Spare Not Included in Project	4	Wts. Not Included in project	6	0	0	0	0	0	0	0		0%	0	0.000	0
125	Civic Center	Civic Center, Room 118 - Court Room	Old Trough 2' x 4' 2 1/2" SUNLIT PANEL, 1800 LMH, 85 WATTS, 1100 FT LUM. PER HOUR LUMEN	2	REC'DO. FLUORESCENT, 4000, LF 90, 1500, 20.4 TUBE WATTS, 30000 HOUR, 200 FT, 28000 LUMEN PER HOUR, 3 YEAR WARRANTY	216	346	2340	567.24	43	0.006	201.24	2		65%	122.802	0.190	472
128	Civic Center	Civic Center, Room 115 - Staffing	Brushy Fluorescent Fixture, 1 4' x 4' x 8' T8, 1600 LMH, 85 WATTS, 1100 FT LUM. PER HOUR LUMEN	1	REC'DO. FLUORESCENT, 4000, LF 90, 1500, 20.4 TUBE WATTS, 30000 HOUR, 200 FT, 28000 LUMEN PER HOUR, 3 YEAR WARRANTY	24	177.36	2340	177.36	43	0.004	201.24	0		0%	0	0.000	72
117	Civic Center	Civic Center, Room 115 - Staffing	Indirect Fluorescent Fixture, 1 4' x 4' x 8' T8, 1600 LMH, 85 WATTS, 1100 FT LUM. PER HOUR LUMEN	1	REC'DO. FLUORESCENT, 4000, LF 90, 1500, 20.4 TUBE WATTS, 30000 HOUR, 200 FT, 28000 LUMEN PER HOUR, 3 YEAR WARRANTY	24	848.24	8790	848.24	43	0.004	201.24	0		0%	0	0.000	272

Bldg #	Building	Location	SYSTEM INFORMATION			EXISTING SYSTEM				PROPOSED SYSTEM					SAVINGS			
			EXISTING EQUIPMENT	QTY	NEW EQUIPMENT/RETRACT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KW/H	TOTAL WATTS EACH	TOTAL KW/H	OP HOUR	TOTAL KW/H	SEAL QTY	CONTROL DESCRIPTION	OFF %	SENS WITH SAVINGS	KWH Reduced
110	Civic Center	Civic Center, Room 115 - Mechanical Room	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	10	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	74	0.740	2340	43	0.430	2340	0		0%	0	0.110	735	
110	Civic Center	Civic Center, Room 115 - Mechanical Room	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	2	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	14	0.140	870	43	0.088	870	0		0%	0	0.016	911	
120	Civic Center	Civic Center, Room 115 - Corridor	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	3	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	0	0.000	1	0	0.000	3	0		0%	0	0.000	0	
121	Civic Center	Civic Center, Room 115 - Corridor	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	3	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	0	0.000	1	0	0.000	3	0		0%	0	0.000	0	
122	Civic Center	Civic Center, Room 117 - People Office	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	2	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	118	0.118	1340	43	0.088	2560	1		42%	84	0.130	418	
123	Civic Center	Civic Center, Room 113 - People Office	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	2	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	118	0.118	1340	43	0.088	2560	1		42%	84	0.130	418	
124	Civic Center	Civic Center, Room 120 - Kitchen	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	2	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	118	0.118	1340	43	0.088	2560	1		42%	84	0.130	418	
125	Civic Center	Civic Center, Room 117 - Men's Restroom	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	1	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	54	0.054	870	65	0.083	870	1		30%	114	0.051	315	
126	Civic Center	Civic Center, Room 117 - Men's Restroom	LED Fluorescent 4'x8' 150W, 900lm 8.0, 1000000, 1000000, 1000000 12 Ballast, 120-277V	1	RETRACT FLUORESCENT 4'x8' 150W, 900LM WHITE, 300000000, 40000, 110-277V, 20000 HOUR WATTS UPE 3 YEAR WARRANTY	54	0.054	870	43	0.113	2560	1		30%	90	0.052	308	

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM						SAVINGS				
Ref. #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE, RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN QTY	CONTROL DESCRIPTION	OFF %	SENS. KWH SAVINGS	KW Reduced	KWh Reduced
127	Civic Center	Civic Center, Room 113 - Men's Restroom	Gen Svc Fixture, 1 x 4', 2x 124112, 30W Mag ES Ballast, 120/277V	2	RETRO. FLUORESCENT, 40W, 1P BALLAST, 3x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 5 YEAR WARRANTY	60	0.120	1340	322.00	40	0.080	1340	322.0	1	Tied in with sensor on another line	30%	55.15	0.008	192
128	Civic Center	Civic Center, Room 116 - Women's Restroom	Circ Traffic, 1' x 4', 2x 124112 (30W), Mag ES Ballast, 120/277V, Pressure Lens, Emergency Ballast	1	RETRO. FLUORESCENT, 40W, 1P BALLAST, 3x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 5 YEAR WARRANTY	78	0.078	8700	648.24	43	0.043	8700	376.68	1	Ceiling Mount, Pressure Lens, Standard Range, 2 1/4" Avg Hgt, 85-90" Field Coverage, Low Voltage, 120/277V	30%	113.000	0.071	255
129	Civic Center	Civic Center, Room 116 - Women's Restroom	Gen Svc Fixture, 1 x 4', 2x 124112, 30W Mag ES Ballast, 120/277V	1	RETRO. FLUORESCENT, 40W, 1P BALLAST, 3x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 5 YEAR WARRANTY	78	0.078	1360	619.48	43	0.119	1360	581.86	1	Tied in with sensor on another line	30%	90.538	0.003	309
130	Civic Center	Civic Center, Room 116 - Women's Restroom	Gen Svc Fixture, 1 x 4', 2x 124112, 30W Mag ES Ballast, 120/277V	2	RETRO. FLUORESCENT, 40W, 1P BALLAST, 3x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 5 YEAR WARRANTY	60	0.120	1340	322.00	40	0.080	1340	322.0	1	Tied in with sensor on another line	30%	55.16	0.008	192
131	Civic Center	Civic Center - Addition, Meeting Room A	Circ Traffic, 1' x 4', 2x 124112, Mag ES Ballast, 120/277V, Pressure Lens	20	RETRO. FLUORESCENT, 40W, 1P BALLAST, 3x 4" TUBE, TRANSR RETROFIT KIT, WHITE REFLECTOR, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 5 YEAR WARRANTY	148	1.480	1340	626.4	43	0.043	2240	2012.4	1	Corner Mounted, Wide View, Pressure Lens, Low Voltage, 40" Coverage area	40%	305.496	2.100	5,793
132	Civic Center	Civic Center - Addition, Meeting Room B	Circ Traffic, 1' x 4', 2x 124112, Mag ES Ballast, 120/277V, Pressure Lens	20	RETRO. FLUORESCENT, 40W, 1P BALLAST, 3x 4" TUBE, TRANSR RETROFIT KIT, WHITE REFLECTOR, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 5 YEAR WARRANTY	148	1.480	1340	626.4	43	0.043	2240	2012.4	1	Corner Mounted, Wide View, Pressure Lens, Low Voltage, 40" Coverage area	40%	305.496	2.100	5,794
133	Civic Center	Civic Center - Addition, Storage Room	Gen Svc Fixture, 1 x 4', 2x 124112, 30W, Mag ES Ballast, 120/277V	1	RETRO. FLUORESCENT, 40W, 1P BALLAST, 3x 4" TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 5 YEAR WARRANTY	148	0.296	780	230.88	25	0.172	780	194.25	0		0%	0	0.104	33
134	Civic Center	Civic Center - Addition, Corridor	Slp Fixture or Space Not Included in Project	5	N/A; Not included in project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
135	Civic Center	Civic Center - Addition, Men's Restroom	Circ Traffic, 1' x 4', 2x 124112, Mag ES Ballast, 120/277V, Pressure Lens	4	RETRO. FLUORESCENT, 40W, 1P BALLAST, 3x 4" TUBE, TRANSR RETROFIT KIT, WHITE REFLECTOR, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 5 YEAR WARRANTY	148	0.548	1360	345.12	43	0.043	1360	160.62	0		0%	0	0.045	146



REL. #	SYSTEM INFORMATION			EXISTING SYSTEM					PROPOSED SYSTEM					SAVINGS					
	BUILDING	LOCATION	EXISTING FEATURE	LTID	NEW FEATURE/REPORT	WATTS EACH	TOTAL KW	OF HOUR	TOTAL KW	90-120	OP HOUR	TOTAL KW	SEN. KW/H	CONTROL DESCRIPTION	OFF %	SENS. KW/H SAVINGS	% Reducd	\$/YR	147526255
126	Civic Center	Civic Center - Addition, Women's Restroom	Grid Torque, 2 x 4, 24 PARTIAL, W/4000 BARREL, 120/277V, 3-Phase, 1-Unit	1	NEW FEATURE/REPORT	148	0.148	1,340	4.5	2,043	2346	1,00.51	0		0%	0	0.128	248	
127	Civic Center	Civic Center - Addition, Kitchen	Grid Torque, 2 x 4, 24 PARTIAL, W/4000 BARREL, 120/277V, 3-Phase, 1-Unit	2	NEW FEATURE/REPORT	168	0.205	1,340	3.1	2,085	2346	202.24	1	Grid Torque, 2 x 4, 24 PARTIAL, W/4000 BARREL, 120/277V, 3-Phase, 1-Unit	20%	40.172	2.232	332	
128	Civic Center	Civic Center - Addition, Washroom	Wp. House in Scope Not Included in Project	1	SWP Not Included in Project	0	0.000	1	0	0.000	1	0	0		0%	0	0.000	0	
129	Civic Center	Civic Center - Addition, Lobby	Wp. House in Scope Not Included in Project	8	SWP Not Included in Project	0	0.000	1	0	0.000	1	0	0		0%	0	0.000	0	
130	Civic Center	Civic Center - Addition, Work Corridor	Wp. House in Scope Not Included in Project	3	SWP Not Included in Project	0	0.000	1	0	0.000	1	0	0		0%	0	0.000	0	
141	Civic Center	Civic Center - Addition, West Corridor	Wp. House in Scope Not Included in Project	1	SWP Not Included in Project	124	1.132	2,100	112	0.928	2346	1205.12	0		0%	0	5.194	422	
142	Civic Center	Civic Center - Addition, West Corridor	Grid Torque, 2 x 4, 24 PARTIAL, W/4000 BARREL, 120/277V, 3-Phase, 1-Unit	1	NEW FEATURE/REPORT	248	0.149	1,340	4.3	2,043	2346	108.84	0		0%	0	0.128	242	
143	Civic Center	Civic Center - Addition, Outfitting	Wp. House in Scope Not Included in Project	3	SWP Not Included in Project	0	0.000	1	0	0.000	1	0	0		0%	0	0.000	0	
144	Civic Center	Civic Center - Addition, Outfitting	Wp. House in Scope Not Included in Project	5	SWP Not Included in Project	0	0.000	1	0	0.000	1	0	0		0%	0	0.000	0	

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS			
REL. #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE, RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN. QTY	CONTROL DESCRIPTION	OFF %	SENS. KWH SAVINGS	KWH Reduced	KWH Reduced
145	Civic Center	Civic Center, Outdoor	Shop Fixture or Space Not Included in Project	1	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
146	Civic Center	Civic Center, Outdoor	Shop Fixture or Space Not Included in Project	8	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
147	Civic Center	Civic Center, Outdoor	Shop Fixture or Space Not Included in Project	5	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
148	Village Hall	Village Hall - L. Room L001 - File Storage	Industrial Hooded Fixture, 1' x 4', 2x8 FT/32, 30W, Mag. ES Ballast, 120/277V	8	RETRO, FLUORESCENT, 45W, LP BALLAST, 2X 4" TUBE, WHITE, 350 DEGREE, 4000H, 120-277V, 20000-HOUR RATED LIFE, 3-YEAR WARRANTY	33	0.392	780	46.76	43	0.516	780	168.14	0		0%	0	0.287	153
149	Village Hall	Village Hall - L. Room L001 - File Storage	Industrial Hooded Fixture, 1' x 4', 2x8 FT/32, 30W, Mag. ES Ballast, 120/277V, Emergency Ballast	7	RETRO, FLUORESCENT, 45W, LP BALLAST, 2X 4" TUBE, WHITE, 350 DEGREE, 4000H, 120-277V, 20000-HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.222	870	104.72	41	0.512	870	1170.04	0		0%	0	0.229	165
150	Village Hall	Village Hall - L. Room L001 - Lunch Room	Shop Fixture or Space Not Included in Project	12	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
151	Village Hall	Village Hall - L. Room L001 - Lunch Room	Shop Fixture or Space Not Included in Project	5	SFP, Not Included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
152	Village Hall	Village Hall - L. Bank Stairwell	WSP Mount Fixture, 1' x 6', 4x F10T12, 30W, Mag. ES Ballast, 120/277V	1	RETRO, FLUORESCENT, EDG, LP BALLAST, 4X 3" TUBE, WHITE, 350 DEGREE, 4000H, 120-277V, 20000-HOUR RATED LIFE, 3-YEAR WARRANTY	128	0.328	2340	122.52	80	0.090	2340	187.2	0		0%	0	0.028	110
153	Village Hall	Village Hall - L. Bank Stairwell	WSP Mount Fixture, 1' x 6', 4x F10T12, 30W, Mag. ES Ballast, 120/277V, Emergency Ballast	1	RETRO, FLUORESCENT, EDG, LP BALLAST, 4X 3" TUBE, WHITE, 350 DEGREE, 4000H, 120-277V, 20000-HOUR RATED LIFE, 3-YEAR WARRANTY	138	0.328	870	120.30	80	0.090	870	700.8	0		0%	0	0.028	90

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS			
Ref #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	SEMI QTY	CONTROL DESCRIPTION	OFF %	SEMS. kWh SAVINGS	kWh Reduced	kWh Reduced
154	Village Hall	Village Hall - L Mechanical Room	Industrial Hooded Fixture, 1 x 4', 2x75W12, 30W, Mag ES Ballast, 120V/277V	5	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	2340	855.9	43	0.215	2340	923.1	0		0%	0	0.158	587
155	Village Hall	Village Hall - L Mechanical Room	Industrial Hooded Fixture, 1 x 4', 2x75W12, 30W, Mag ES Ballast, 120V/277V, Emergency Ballast	1	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	8760	848.24	43	0.215	8760	176.88	0		0%	0	0.031	272
156	Village Hall	Village Hall - L Electrical Closet	Industrial Hooded Fixture, 1 x 4', 2x75W12, 30W, Mag ES Ballast, 120V/277V	5	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	2340	855.9	43	0.215	2340	923.1	0		0%	0	0.155	583
157	Village Hall	Village Hall - L Electrical Closet	Industrial Hooded Fixture, 1 x 4', 2x75W12, 30W, Mag ES Ballast, 120V/277V, Emergency Ballast	1	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	8760	848.24	43	0.215	8760	176.88	0		0%	0	0.031	272
158	Village Hall	Village Hall - L, Antler Coat	Industrial Hooded Fixture, 1 x 4', 2x75W12, 30W, Mag ES Ballast, 120V/277V	1	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	2340	173.16	43	0.215	2340	106.67	0		0%	0	0.031	71
159	Village Hall	Village Hall - L, Room LO22 - Corridor	Industrial Hooded Fixture, 1 x 4', 2x75W12, 30W, Mag ES Ballast, 120V/277V	2	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	2340	146.33	43	0.215	2340	103.24	0		0%	0	0.032	145
160	Village Hall	Village Hall - L, Room LO22 - Corridor	Grid Troffer, 2' x 4', 2x75W12, (20W), Mag ES Ballast, 120V/277V, Programmable	9	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	2340	1507.96	43	0.215	2340	965.58	0		0%	0	0.279	851
161	Village Hall	Village Hall - L, Room LO22 - Corridor	Grid Troffer, 2' x 4', 2x75W12, (20W), Mag ES Ballast, 120V/277V, Programmable, Emergency Ballast	8	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	3780	5155.92	43	0.215	3780	2023.44	0		0%	0	0.248	2,171
162	Village Hall	Village Hall - L, Room LO22 - Men's Restroom	Grid Troffer, 2' x 4', 2x75W12, (20W), Mag ES Ballast, 120V/277V, Programmable, Emergency Ballast	1	RETRO FLUORESCENT, 45W, LF BALLAST, 2X 4' TUBE, WHITE, 160/05/46E, 4000K, 120-277V, 28000-HOUR RATED LIFE, 5-YEAR WARRANTY	74	0.370	3780	648.24	43	0.215	3780	176.88	1	Casting Mount, Posible infrared, Switched Range, 8-15' Meters, 10-25' (Add'l) Coverage, 120V Voltage, 120V/277V	100%	113.008	0.011	88

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM						SAVINGS				
Ref. #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN. QTY	CONTROL DESCRIPTION	OFF %	SENS. KWH SAVINGS	KWh Reduced	KWh Reduced
163	Village Hall	Village Hall - L, Room 1006 - Men's Restroom	8in Shop Fixture, 1' x 4', 14 F34712, 34W, Mag ES Ballast, 120/277V	3	RETRO. FLUORESCENT, 41W, LP BALLAST, 26" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	78	0.234	1340	315.6	78	0.231	1300	315.6	1	Tied in with sensor on another line	30%	70.558	0.650	303
164	Village Hall	Village Hall - L, Room 1006 - Men's Restroom	8in Shop Fixture, 1' x 3', 14 F30112, 30W Mag ES Ballast, 120/277V	1	RETRO. FLUORESCENT, 40W, LP BALLAST, 26" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	69	0.069	1340	161.45	69	0.069	1340	161.4	1	Tied in with sensor on another line	30%	23.03	0.029	56
165	Village Hall	Village Hall - L, Room 1009 - Women's Restroom	End Hooker, 2' x 4', 24 F34713, 24W, Mag ES Ballast, 120/277V, Tri-Phase 1 Line, Emergency Ballast	1	RETRO. FLUORESCENT, 43W, LP BALLAST, 26" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.070	8760	648.24	70	0.070	8760	376.98	1	Control Module, Phase Imbalance, Standard Range, 3-15' Mag Hgt, 20-20' Radial Coverage, Line Voltage 120/277V	30%	114.924	0.431	285
166	Village Hall	Village Hall - L, Room 1009 - Women's Restroom	8in Shop Fixture, 1' x 4', 24 F34712, 34W, Mag ES Ballast, 120/277V	3	RETRO. FLUORESCENT, 41W, LP BALLAST, 26" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	78	0.234	1340	315.6	78	0.225	1340	315.6	1	Tied in with sensor on another line	30%	70.558	0.650	303
167	Village Hall	Village Hall - L, Room 1009 - Women's Restroom	8in Shop Fixture, 1' x 3', 14 F30112, 30W Mag ES Ballast, 120/277V	1	RETRO. FLUORESCENT, 40W, LP BALLAST, 26" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	69	0.069	1340	161.45	69	0.069	1340	161.4	1	Tied in with sensor on another line	30%	23.03	0.029	56
168	Village Hall	Village Hall - L, West Stairwell	Wall Mount Fixture, 2' x 8', 24 F30112, 30W, Mag ES Ballast, 120/277V	1	RETRO. FLUORESCENT, 30W, LP BALLAST, 44" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	338	0.338	1380	467.52	338	0.060	1380	187.2	0		0%	0	0.658	135
169	Village Hall	Village Hall - L, West Stairwell	Wall Mount Fixture, 2' x 6', 24 F30112, 30W, Mag ES Ballast, 120/277V, Emergency Ballast	1	RETRO. FLUORESCENT, 30W, LP BALLAST, 44" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	338	0.338	8760	1208.88	338	0.081	8760	792.8	0		0%	0	0.158	303
170	Village Hall	Village Hall - L, West Storage Room (Unfinished Area)	Included Hooded Fixture, 2' x 4', 24 F34713, 24W, Mag ES Ballast, 120/277V	38	RETRO. FLUORESCENT, 43W, LP BALLAST, 26" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	1.332	730	1038.96	74	0.774	780	621.72	0		0%	0	0.558	453
171	Village Hall	Village Hall - L, West Storage Room (Unfinished Area)	Included Hooded Fixture, 2' x 4', 24 F34713, 24W, Mag ES Ballast, 120/277V, Emergency Ballast	5	RETRO. FLUORESCENT, 43W, LP BALLAST, 26" TUBE, WHITE, S80000000, 4000K, 120-277V, 20000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.370	8760	3243.2	74	0.215	8760	1883.4	0		0%	0	0.158	1358

Ref. #	BUILDING	LOCATION	SYSTEM INFORMATION		EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS		
			EXISTING FIXTURE	QTY	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN. QTY	CONTROL DESCRIPTION	OFF %	SENS. KWH SAVINGS	KW Reduced	KWH Reduced
172	Village Hall	Village Hall - E, Room L004 - Conference Room	One-Troffer, 2' x 4', 36 F34T12, Mag ES Ballast, 120/277V, Prismatic Lens	3	148	0.444	2340	1038.96	43	0.129	2340	1038.96	1	Existing Mount, Passacolorated, Standard Range, 3-15' Hgt, 20-30' Radial Coverage, Line Voltage 120/277V	40%	132.838	0.215	870
173	Village Hall	Village Hall - E, Room L014 - Open Offices	One-Troffer, 2' x 4', 36 F34T12, (36W), Mag ES Ballast, 120/277V, Prismatic Lens	12	128	2.554	3340	3589.56	43	0.529	3340	1108.05	0		0%	0	0.975	2,182
174	Village Hall	Village Hall - E, Room L014 - Open Offices	One-Troffer, 2' x 4', 36 F34T12, (36W), Mag ES Ballast, 120/277V, Prismatic Lens, Emergency Ballast	3	128	0.384	8700	3102.04	43	0.129	8700	1195.04	0		0%	0	0.423	1,071
175	Village Hall	Village Hall - E, Room L011 - Private Office	One-Troffer, 2' x 4', 36 F34T12, Mag ES Ballast, 120/277V, Prismatic Lens	1	148	0.439	2340	632.94	43	0.088	2340	276.24	1	Existing Mount, Passacolorated, Standard Range, 3-15' Hgt, 20-30' Radial Coverage, Line Voltage 120/277V	40%	84.528	0.210	548
176	Village Hall	Village Hall - E, Room L012 - Private Office	One-Troffer, 2' x 4', 36 F34T12, (36W), Mag ES Ballast, 120/277V, Prismatic Lens	6	76	0.246	2340	642.54	43	0.172	2340	300.58	3	Existing Mount, Passacolorated, Standard Range, 3-15' Hgt, 20-30' Radial Coverage, Line Voltage 120/277V	40%	109.615	0.234	458
177	Village Hall	Village Hall - E, Room L013 - Private Office	One-Troffer, 2' x 4', 36 F34T12, Mag ES Ballast, 120/277V, Prismatic Lens	2	148	0.292	2340	592.54	43	0.086	2340	262.24	2	Existing Mount, Passacolorated, Standard Range, 3-15' Hgt, 20-30' Radial Coverage, Line Voltage 120/277V	40%	84.528	0.220	578
178	Village Hall	Village Hall - E, Room L015 - Private Office	One-Troffer, 2' x 4', 36 F34T12, Mag ES Ballast, 120/277V, Prismatic Lens	3	148	0.448	2340	1038.96	43	0.325	2340	300.56	1	Existing Mount, Passacolorated, Standard Range, 3-15' Hgt, 20-30' Radial Coverage, Line Voltage 120/277V	40%	229.782	0.235	884
179	Village Hall	Village Hall - E, East Open Office	One-Troffer, 2' x 4', 36 F34T12, Mag ES Ballast, 120/277V, Prismatic Lens	4	148	0.688	3340	2677.92	43	0.258	3340	803.72	0		0%	0	0.439	1,474
180	Village Hall	Village Hall - E, East Private Office M1	One-Troffer, 2' x 4', 36 F34T12, Mag ES Ballast, 120/277V, Prismatic Lens	3	148	0.444	2340	1038.96	43	0.129	2340	300.90	1	Existing Mount, Passacolorated, Standard Range, 3-15' Hgt, 20-30' Radial Coverage, Line Voltage 120/277V	40%	124.782	0.235	884

Bldg #	SYSTEM WITH CURRENT				LXIS LXIG SYSTEM				PROJECTED SYSTEM						SAVINGS			
	BUILDING	LOCATION	EXISTING FIXTURE	TYPE	WATTS EACH	TOTAL KW	OP HOUR	TOTAL WATT HOUR	WATTS EACH	TOTAL KW	OP HOUR	TOTAL WATT HOUR	SECT	CONTROL DESCRIPTION	OFF %	SENS. KWHR SAVINGS	KWH Reduced	% Reduced
130	Village Hall	Village Hall - L. East Prayer Office #2	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	1	148	0.128	2340	235.83	43	0.088	2340	210.24	1	100% Manual	0%	36.5408	0.210	50%
132	Village Hall	Village Hall - L. East Prayer Office #3	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	1	148	0.128	2340	235.83	43	0.088	2340	210.24	1	100% Manual	0%	36.5408	0.210	50%
134	Village Hall	Village Hall - 1st. Room 102 - Lobby	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	8	0	0.000	1	0	0	0.000	1	0	0	0%	0	0.000	0	
136	Village Hall	Village Hall - 1st. Room 102 - Lobby	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	8	0	0.000	1	0	0	0.000	1	0	0	0%	0	0.000	0	
138	Village Hall	Village Hall - 1st. Room 102 - Lobby - High Ceiling	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	1	0	0.000	1	0	0	0.000	1	0	0	0%	0	0.000	0	
139	Village Hall	Village Hall - 1st. Room 102 - Lobby - High Ceiling	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	1	0	0.000	1	0	0	0.000	1	0	0	0%	0	0.000	0	
140	Village Hall	Village Hall - 1st. Room 102 - Lobby - High Ceiling	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	1	0	0.000	1	0	0	0.000	1	0	0	0%	0	0.000	0	
142	Village Hall	Village Hall - 1st. Room 102 - Lobby (Office Case)	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	1	47	0.038	3340	339.95	33	0.033	3340	305.84	0	100% Manual	0%	0	0.000	0
144	Village Hall	Village Hall - 1st. Room 102 - Lobby (Office)	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	11	144	7.428	2140	1703.12	111	0.222	2140	1472.32	0	100% Manual	0%	0	1.196	100%
146	Village Hall	Village Hall - 1st. Room 112 - Office Office	6000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE 10000 Fluorescent, 40W, 1F Ballast, 20 FT TUBE	4	31	0.256	3340	339.95	43	0.232	3340	305.84	0	100% Manual	0%	0	0.134	100%

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS			
Ref. #	BUILDING	LOCATION	EXISTING FIXTURE	FIT	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN. QTY	CONTROL DESCRIPTION	OFF %	SENS. KWH SAVINGS	KWH Reduced	\$/KWH Reduced
100	Village Hall	Village Hall - 1st, Room 112 - Open Office	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens, Emergency Ballast	1	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.074	8760	64.824	45	0.045	8760	396.00	0		0%	0	0.030	270
101	Village Hall	Village Hall - 1st, Room 109 - Private Office	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens	2	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.248	2340	196.32	45	0.045	2340	106.24	1	Leaky Mount, Panic Infrared, Standard Range, 8' 15" Mtg Hgt, 10-20' Recessed Coverage, Line Voltage 120V/277V	43%	84.4208	0.060	310
102	Village Hall	Village Hall - 1st, Room 110 - Storage	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens	1	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.076	780	57.72	45	0.045	780	35.54	0		0%	0	0.033	24
103	Village Hall	Village Hall - 1st, Room 111 - Private Office	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens	4	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.296	2340	592.64	45	0.170	2340	462.48	1	Leaky Mount, Panic Infrared, Standard Range, 8' 15" Mtg Hgt, 10-20' Recessed Coverage, Line Voltage 120V/277V	43%	144.0014	0.124	450
104	Village Hall	Village Hall - 1st, Room 108 - Library	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens	4	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.296	2340	492.64	45	0.172	2340	462.48	1	Leaky Mount, Panic Infrared, Standard Range, 8' 15" Mtg Hgt, 10-20' Recessed Coverage, Line Voltage 120V/277V	35%	90.372	0.124	351
105	Village Hall	Village Hall - 1st, Room 107 - File Storage	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens	1	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.076	780	57.72	45	0.045	780	35.54	0		0%	0	0.033	24
106	Village Hall	Village Hall - 1st, Room 106 - Open Office	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens	5	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.370	2340	865.8	45	0.210	2340	501.1	0		0%	0	0.354	281
107	Village Hall	Village Hall - 1st, Room 105 - Open Office	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens, Emergency Ballast	1	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.074	8760	64.824	45	0.045	8760	396.00	0		0%	0	0.030	270
108	Village Hall	Village Hall - 1st, Room 104 - Work Room	Grid Tuffler, 2 x 4, 2x F54712, (24W), Mag ES Ballast, 110V/277V, Photometric Lens	1	RETRO. FLUORESCENT, 41W, UP BALLAST, 2x 4" TUBE, WHITE, 360/55/44E, 4000K, 120-277V, 10000 HOUR RATED LIFE, 3-YEAR WARRANTY	70	0.211	2340	519.48	45	0.129	2340	108.81	0		0%	0	0.060	210

Bldg #	SYSTEM INFORMATION				EXISTING SYSTEM				PROPOSED SYSTEM				SAVINGS					
	BUILDING	LOCATION	EXISTING FUTURE	QTY	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEMI-CITY	CONTROL DESCRIPTION	OFF-SCHEDULE %	SEPS-SAVIN SAVINGS	kw/yr Reduced	kWh Reduced
198	Village Hall	134, Room 204 - Private Office	Grid Trolley, 7' x 4', 24" (240V), 1200W, 100% LED, 3-Phase, Breaker	1	71	0.732	3340	519.48	0.124	0.240	3340	106.84	1	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	42%	12.28012	0.66%	344
200	Village Hall	134, Room 102 - Private Office	Grid Trolley, 7' x 4', 24" (240V), 1200W, 100% LED, 3-Phase, Breaker	6	71	0.756	3340	630.48	0.124	0.340	408.88	1	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	42%	16.91458	0.15%	314	
201	Village Hall	134, Room 104 - Stairwell	60" Mount Fluorescent, 4' x 4', 40W, 120V, 1-Phase, Breaker	1	135	0.138	3340	522.74	0.080	2240	187.4	0	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	10%	0	0.07%	225	
202	Village Hall	134, Room 104 - Stairwell	60" Mount Fluorescent, 4' x 4', 40W, 120V, 1-Phase, Breaker	1	231	0.238	1760	330.88	0.080	8710	706.8	0	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	10%	0	0.07%	303	
203	Village Hall	134, Room 112 - Private Office	Grid Trolley, 7' x 4', 24" (240V), 1200W, 100% LED, 3-Phase, Breaker	1	34	0.148	2340	348.12	0.080	2340	302.4	1	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	42%	14.22108	0.07%	222	
204	Village Hall	134, Room 112 - Private Office	Grid Trolley, 7' x 4', 24" (240V), 1200W, 100% LED, 3-Phase, Breaker	1	34	0.074	1370	508.24	0.043	3750	170.18	0	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	10%	0	0.03%	273	
205	Village Hall	134, Room 115 - Private Office	Grid Trolley, 7' x 4', 24" (240V), 1200W, 100% LED, 3-Phase, Breaker	2	14	0.348	3340	306.12	0.080	2240	302.4	1	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	42%	14.22108	0.07%	226	
206	Village Hall	134, Room 227 - Conference Room	Grid Trolley, 7' x 4', 24" (240V), 1200W, 100% LED, 3-Phase, Breaker	6	39	0.444	3340	603.96	0.138	3340	606.32	1	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	48%	20.8568	0.18%	313	
307	Village Hall	134, Room 227 - Conference Room	60" Mount Fluorescent, 4' x 4', 40W, 120V, 1-Phase, Breaker	8	0	0.000	1	0	0.000	1	0	0	Standard Infrared, Periodic Infrared, 23' Long, 10" Dia, 150W, 120V, 1-Phase, Breaker	10%	0	0.00%	0	



SYSTEM INFORMATION					EXISTING SYSTEM					PROPOSED SYSTEM							SAVINGS		
Ref. #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN. QTY	CONTROL DESCRIPTION	OFF %	SENS. kWh SAVINGS	kWh Reduced	kWh Reduced
100	Village Hall	Village Hall - 1st. Room 127 - File Storage	See fixture or spec. Not included in Project	1	See Not included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
106	Village Hall	Village Hall - 1st. Room 128 - Open Office (Case Work Admin.)	Grid Tuffee, 2' x 4', 2x F34T12, (14W), Mag ES Ballast, 120/277V, Fluorescent Lens	5	RETRO. FLUORESCENT, 43W, LP BALLAST, 2X 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.370	2300	861.0	43	0.215	2300	511.5	0		0%	0	0.350	351
110	Village Hall	Village Hall - 1st. Room 128 - Open Office (Case Work Admin.)	Grid Tuffee, 2' x 4', 2x F34T12, (14W), Mag ES Ballast, 120/277V, Fluorescent Lens, Emergency Ballast	1	RETRO. FLUORESCENT, 43W, LP BALLAST, 2X 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.074	6300	462.24	43	0.043	6300	270.90	0		0%	0	0.031	272
111	Village Hall	Village Hall - 1st. Room 128 - Open Office (Case Work Admin.)	See fixture or spec. Not included in Project	1	See Not included in Project	0	0.000	1	0	0	0.000	1	0	0		0%	0	0.000	0
113	Village Hall	Village Hall - 1st. Room 118 - Private Office	Grid Tuffee, 2' x 4', 2x F34T12, (14W), Mag ES Ballast, 120/277V, Fluorescent Lens	2	RETRO. FLUORESCENT, 43W, LP BALLAST, 2X 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.148	1300	958.32	43	0.086	1300	561.24	1	Ceiling Mount, Parallel Infrared, Standard Range, 3- 15' Mtg Hgt, 10-20' Radial Coverage, Line Voltage 120/277V	40%	84.5208	0.084	230
113	Village Hall	Village Hall - 1st. Room 113 - Private Office	Grid Tuffee, 2' x 4', 2x F34T12, (14W), Mag ES Ballast, 120/277V, Fluorescent Lens	1	RETRO. FLUORESCENT, 43W, LP BALLAST, 2X 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.222	1300	519.48	43	0.119	2300	501.86	1	Ceiling Mount, Parallel Infrared, Standard Range, 3- 15' Mtg Hgt, 10-20' Radial Coverage, Line Voltage 120/277V	40%	126.7812	0.095	301
114	Village Hall	Village Hall - 1st. Room 120 - Private Office	Grid Tuffee, 2' x 4', 2x F34T12, (14W), Mag ES Ballast, 120/277V, Fluorescent Lens	2	RETRO. FLUORESCENT, 43W, LP BALLAST, 2X 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.148	1300	948.32	43	0.086	1300	561.24	1	Ceiling Mount, Parallel Infrared, Standard Range, 3- 15' Mtg Hgt, 10-20' Radial Coverage, Line Voltage 120/277V	40%	84.5208	0.084	230
115	Village Hall	Village Hall - 1st. Room 121 - Private Office	Grid Tuffee, 2' x 4', 2x F34T12, (14W), Mag ES Ballast, 120/277V, Fluorescent Lens	2	RETRO. FLUORESCENT, 43W, LP BALLAST, 2X 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.148	1300	948.32	43	0.086	1300	561.24	1	Ceiling Mount, Parallel Infrared, Standard Range, 3- 15' Mtg Hgt, 10-20' Radial Coverage, Line Voltage 120/277V	40%	84.5208	0.084	230
116	Village Hall	Village Hall - 1st. Room 122 - Private Office	Grid Tuffee, 2' x 4', 2x F34T12, (14W), Mag ES Ballast, 120/277V, Fluorescent Lens	2	RETRO. FLUORESCENT, 43W, LP BALLAST, 2X 4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.148	1300	948.32	43	0.086	1300	561.24	1	Ceiling Mount, Parallel Infrared, Standard Range, 3- 15' Mtg Hgt, 10-20' Radial Coverage, Line Voltage 120/277V	40%	84.5208	0.084	230

Rise #	SYSTEM INFORMATION			EXISTING SYSTEM			PROPOSED SYSTEM					SAVINGS					
	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FUTURE/RETROFIT	WATS EACH	TOTAL KW	OP HOUR	TOTAL \$/HR	SE \$/HR	OP HOUR	TOTAL KW	DIFF %	SE \$/HR	DIFF %	SE \$/HR	DIFF %
217	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%
218	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%
219	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%
220	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%
221	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%
222	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%
223	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%
224	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%
225	Village Hall	Village Hall - 1st, Room 123 - Private Office	Seat/Trolley, 2 x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	2	NEW FUTURE/RETROFIT SEAT/TROLLEY, 43W, 1P BALLAST, 2x 4, 2x 25" (1500), Mag ES (1000277), Plymate Lense	24	488	2400	48	0.086	2400	48	0%	0.086	0%	0.086	0%

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS			
Ref. #	Building	Location	Existing Fixture	Qty	New Fixture/Retrofit	Watts Each	Total kW	Op Hour	Total kWh	Watts Each	Total kW	Op Hour	Total kWh	SEL Qty	Control Description	Off %	Sens. kWh Savings	kWh Reduced	kWh Reduced
226	Village Hall	Village Hall - 1st, Room 128 - Men's Restroom	5W Shop Fixture, 1' x 4', 2x F34T12, 34W Mag 05 Ballast, 120/277V	2	RETRO. FLUORESCENT, 45W, LP BALLAST, 2x 4' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	39	0.143	2540	549.32	42	0.025	2140	200.24	1	Tied in with sensor on another line	30%	60.372	0.042	20%
227	Village Hall	Village Hall - 1st, Room 128 - Men's Restroom	5W Shop Fixture, 1' x 5', 1x F16T12, 30W Mag 05 Ballast, 120/277V	1	RETRO. FLUORESCENT, 40W, LP BALLAST, 2x 5' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	19	0.057	2340	181.45	40	0.046	2240	93.6	1	Tied in with sensor on another line	30%	28.58	0.029	5%
228	Village Hall	Village Hall - 1st, Room 129 - Women's Restroom	016 Transformer, 2' x 4', 2x F34T12, (34W) Mag 05 Ballast, 120/277V, Fluorescent Lenses, Emergency Ballast	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 2x 4' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	39	0.074	2300	548.34	42	0.042	2700	137.08	1	LED High Bay, Motion Sensitive, Standard Fixture, 8.5' High Mt., 10-30' Flood Coverage, Live Voltage 120/277V	30%	121.204	0.031	38%
229	Village Hall	Village Hall - 1st, Room 128 - Women's Restroom	5W Shop Fixture, 1' x 4', 2x F34T12, 34W Mag 05 Ballast, 120/277V	2	RETRO. FLUORESCENT, 45W, LP BALLAST, 2x 4' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	39	0.143	2340	245.32	42	0.025	2140	200.24	1	Tied in with sensor on another line	30%	60.372	0.042	20%
230	Village Hall	Village Hall - 1st, Room 129 - Women's Restroom	5W Shop Fixture, 1' x 5', 1x F16T12, 30W Mag 05 Ballast, 120/277V	1	RETRO. FLUORESCENT, 40W, LP BALLAST, 2x 5' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	19	0.057	2340	181.45	40	0.046	2240	93.6	1	Tied in with sensor on another line	30%	28.58	0.029	5%
231	Village Hall	Village Hall - 1st, Room 134A - Mail Room	016 Transformer, 2' x 4', 2x F34T12, (34W) Mag 05 Ballast, 120/277V, Fluorescent Lenses	7	RETRO. FLUORESCENT, 45W, LP BALLAST, 2x 4' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.512	2340	1222.17	42	0.305	2140	304.34	1	LED High Bay, 140" Row, Spherical, Extended Range, 7.5' High Mt., 10-30' Flood Coverage, Live Voltage 120/277V	42%	432.618	0.257	93%
232	Village Hall	Village Hall - 1st, Room 134C - Storage	016 Transformer, 2' x 4', 2x F34T12, (34W) Mag 05 Ballast, 120/277V, Fluorescent Lenses	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 2x 4' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.074	290	57.32	42	0.042	780	13.96	0		0%	0	0.031	24
233	Village Hall	Village Hall - 1st, Room 141 - Open Office (Accounting)	016 Transformer, 2' x 4', 2x F34T12, (34W) Mag 05 Ballast, 120/277V, Fluorescent Lenses	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 2x 4' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.512	2340	1742.17	42	0.405	2340	304.34	0		0%	0	0.257	56%
234	Village Hall	Village Hall - 1st, Room 141 - Open Office (Accounting)	016 Transformer, 2' x 4', 2x F34T12, (34W) Mag 05 Ballast, 120/277V, Fluorescent Lenses, Emergency Ballast	1	RETRO. FLUORESCENT, 45W, LP BALLAST, 2x 4' TUBE, WHITE, 350 DEGREE, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3-YEAR WARRANTY	74	0.074	2350	549.24	42	0.042	2700	137.08	0		0%	0	0.031	2%

Ref. #	SYSTEM INFORMATION				EXISTING SYSTEM					PROPOSED SYSTEM					SAVINGS			
	BUILDING	LOCATION	EXISTING FIXTURE	QTY	WATTS EACH	TOTAL KW	OP. HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP. HOUR	TOTAL KWH	SEMI-CITY	CONTROL DESCRIPTION	OFF. SENS. RWH SAVINGS %	100% SENS. RWH SAVINGS	100% RWH Reduces	1992-95 RWS
276	Village Hall	1st. Room 143 - Office (Accounting)	240 Fluorescent 40W included in report	4	0	0.000	1	0	0	0	0	0	0		0%	0	0.000	0
277	Village Hall	1st. Room 143 - Office (Accounting)	240 Fluorescent 40W included in report	2	0	0.000	1	0	0	0	0	0	0		0%	0	0.000	0
278	Village Hall	1st. Room 143 - Cash Storage	180W Fluorescent 40W, 15 Ballast, 24" Tube White, 400/680/850, 400K, 100-277V, 2000-Hour Rated Life, 3125Hr Warranty	1	74	0.074	799	57.72	3.5	0.043	980	33.54	0		0%	0	0.043	74
279	Village Hall	1st. Room 135 - Private Office	240 Fluorescent 40W, 15 Ballast, 24" Tube White, 400/680/850, 400K, 100-277V, 2000-Hour Rated Life, 3125Hr Warranty	1	74	0.074	1140	49.48	43	0.129	1543	103.85	1		47%	138.703	0.593	384
280	Village Hall	1st. Room 136 - Training Office	240 Fluorescent 40W, 15 Ballast, 24" Tube White, 400/680/850, 400K, 100-277V, 2000-Hour Rated Life, 3125Hr Warranty	3	74	0.218	2140	147.22	43	0.306	2230	103.44	1		47%	64.5209	0.162	250
281	Village Hall	1st. Room 137 - Private Office	240 Fluorescent 40W, 15 Ballast, 24" Tube White, 400/680/850, 400K, 100-277V, 2000-Hour Rated Life, 3125Hr Warranty	3	74	0.218	1340	145.31	43	0.306	2130	101.24	1		43%	64.5209	0.162	250
282	Village Hall	1st. Room 138 - Private Office	240 Fluorescent 40W, 15 Ballast, 24" Tube White, 400/680/850, 400K, 100-277V, 2000-Hour Rated Life, 3125Hr Warranty	4	74	0.296	1340	145.31	43	0.386	2340	101.24	1		43%	64.5209	0.162	250
283	Village Hall	1st. Room 139 - Private Office	240 Fluorescent 40W, 15 Ballast, 24" Tube White, 400/680/850, 400K, 100-277V, 2000-Hour Rated Life, 3125Hr Warranty	3	74	0.218	1340	145.31	43	0.306	2130	101.24	1		43%	64.5209	0.162	250
284	Village Hall	1st. Conference Room	240 Fluorescent 40W, 15 Ballast, 24" Tube White, 400/680/850, 400K, 100-277V, 2000-Hour Rated Life, 3125Hr Warranty	4	74	0.296	1340	145.31	43	0.386	2340	101.24	1		43%	64.5209	0.162	250

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM								SAVINGS		
Proj. #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL FWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL RWH	SEN. QTY	CONTROL DESCRIPTION	OFF %	SENS. KWH SAVINGS	KW Reduced	KWH Reduced
244	Village Hall	Village Hall - 1st, Room 142 - Open Office (Finance)	Grid Tuffen, 2' x 4', 2x F14T12 (39W), Mag 55 Ballast, 120V/277V, Fluorescent Lens	22	RETRO FLUORESCENT 40W, LP BALLAST, 2x 4" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	1.628	2340	380.52	43	0.946	2340	323.64	0		0%	0	0.682	1.926
245	Village Hall	Village Hall - 1st, Room 142 - Computer Storage	Grid Tuffen, 2' x 4', 2x F14T12 (39W), Mag 55 Ballast, 120V/277V, Fluorescent Lens	6	RETRO FLUORESCENT 40W, LP BALLAST, 2x 4" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.444	710	140.32	43	0.278	710	101.34	0	Ceiling Mount, Patched Infrared, Standard Range, 8' 15" Avg Hgt, 10-20' Max Ht Coverage, Line Voltage 120V/277V	63%	125.7812	0.186	271
246	Village Hall	Village Hall - 1st, Room 142 - Telephone Equipment	Grid Tuffen, 2' x 4', 2x F14T12 (39W), Mag 55 Ballast, 120V/277V, Fluorescent Lens	2	RETRO FLUORESCENT 40W, LP BALLAST, 2x 4" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.148	1340	140.32	43	0.090	2340	101.34	1	Ceiling Mount, Patched Infrared, Standard Range, 8' 15" Avg Hgt, 10-20' Max Ht Coverage, Line Voltage 120V/277V	63%	125.7812	0.032	270
247	Village Hall	Village Hall - 1st, Room 143 - Private Office	Grid Tuffen, 2' x 4', 2x F14T12 (39W), Mag 55 Ballast, 120V/277V, Fluorescent Lens	2	RETRO FLUORESCENT 40W, LP BALLAST, 2x 4" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.148	2340	140.32	43	0.090	2340	101.34	1	Ceiling Mount, Patched Infrared, Standard Range, 8' 15" Avg Hgt, 10-20' Max Ht Coverage, Line Voltage 120V/277V	63%	84.5268	0.032	210
248	Village Hall	Village Hall - 1st, Room 143 - Storage	Grid Tuffen, 2' x 4', 2x F14T12 (39W), Mag 55 Ballast, 120V/277V, Fluorescent Lens	3	RETRO FLUORESCENT 40W, LP BALLAST, 2x 4" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.222	710	175.64	43	0.124	710	100.60	1	Ceiling Mount, Patched Infrared, Standard Range, 8' 15" Avg Hgt, 10-20' Max Ht Coverage, Line Voltage 120V/277V	63%	63.3406	0.030	136
249	Village Hall	Village Hall - 1st, Room 142 - Engineering Closet	Grid Tuffen, 2' x 4', 2x F14T12 (39W), Mag 55 Ballast, 120V/277V, Fluorescent Lens	8	RETRO FLUORESCENT 40W, LP BALLAST, 2x 4" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	74	0.592	1340	170.56	43	0.093	2340	100.62	0		0%	0	0.031	73
250	Village Hall	Village Hall - 1st, West Stairwell	Hall Mount Fixture, 1' x 8', 4x F8T12, 39W, Mag 55 Ballast, 120V/277V	2	RETRO FLUORESCENT 80W, LP BALLAST, 2x 3" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	138	0.238	1340	112.92	80	0.090	2340	107.2	0		0%	0	0.038	136
251	Village Hall	Village Hall - 1st, West Stairwell	Hall Mount Fixture, 1' x 8', 4x F8T12, 39W, Mag 55 Ballast, 120V/277V, Emergency Ballast	1	RETRO FLUORESCENT 80W, LP BALLAST, 2x 3" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	138	0.119	670	109.88	80	0.090	2340	100.6	0		0%	0	0.034	88
252	Village Hall	Village Hall - 2nd, Corridor	Recessed Cloud Fixture, 4x F14T12 (39W), 2x Mag 55 Ballast, 120V/277V, Round Lens/Lens	11	RETRO FLUORESCENT 35W, LP BALLAST, 2x 4" TUBE, WHITE, 260000000, 4000K, 120-277V, 28000 HOUR RATED LIFE, 3 YEAR WARRANTY	148	1.628	2340	380.52	43	0.946	2340	323.64	0		0%	0	0.682	1.926

Rel. #	BUILDING	EDUCATION	EXISTING FUTURE	N/F	NEW FUTURE/RETROFIT	EXISTING SYSTEM				PROPOSED SYSTEM						SAVINGS			
						WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEAL CITY	CONTROL DESCRIPTION	DIFF. SENS. %	SENS. KWH SAVINGS	DIFF. KWH REDUCED	% KWH REDUCED
233	Village Hall	Village Hall - 2nd Corridor	Recessed Quadraflex 24 1'x4'13" (309L) 24 Max ES 4000, 230-270V, 2000 HOUR	2	RECYCLED ALUMINUM, 41% LF, PRELUY, 3/8" TUBE, WHITE, 230-270V, 2000 HOUR	148	0.132	8760	11095.32	95	0.774	8760	11095.32	0	0	0%	0	0.522	2388
234	Village Hall	Village Hall - 2nd Corridor	Exp. Future of Warm Net Included in Project	1	65% Return/Unidirectional Lamp	8	0.008	1	6	0	0.000	1	6	0	0	0%	0	0.000	6
236	Village Hall	Village Hall - 2nd Corridor	Exp. Future of Stripmer Included in Project	1	65% Return/Unidirectional Lamp	8	0.008	1	6	0	0.000	1	6	0	0	0%	0	0.000	6
237	Village Hall	Village Hall - 2nd Corridor	Quadraflex 2'x4' 13" 24 Max ES 4000, 230-270V, 2000 HOUR	2	RECYCLED ALUMINUM, 41% LF, PRELUY, 3/8" TUBE, WHITE, 230-270V, 2000 HOUR	74	0.149	1290	14632	42	0.095	1290	14632	0	0	0%	0	0.092	345
237	Village Hall	Village Hall - 2nd Corridor	Quadraflex 2'x4' 13" 24 Max ES 4000, 230-270V, 2000 HOUR	2	RECYCLED ALUMINUM, 41% LF, PRELUY, 3/8" TUBE, WHITE, 230-270V, 2000 HOUR	74	0.074	8760	84824	42	0.042	8760	84824	0	0	0%	0	0.031	333
238	Village Hall	Village Hall - 2nd Corridor (SP-14)	Quadraflex 2'x4' 24 Max ES 4000, 230-270V, 2000 HOUR	13	RECYCLED ALUMINUM, 41% LF, PRELUY, 3/8" TUBE, WHITE, 230-270V, 2000 HOUR	144	0.688	7360	170147	101	4.350	7360	170147	0	0	0%	0	1.546	2794
239	Village Hall	Village Hall - 2nd Room 205 - Storage Office	Quadraflex 2'x4' 24 Max ES 4000, 230-270V, 2000 HOUR	2	RECYCLED ALUMINUM, 41% LF, PRELUY, 3/8" TUBE, WHITE, 230-270V, 2000 HOUR	74	0.074	8760	8572	42	0.042	8760	8572	0	0	0%	0	0.020	24
239	Village Hall	Village Hall - 2nd Room 205 - Open Office	Quadraflex 2'x4' 24 Max ES 4000, 230-270V, 2000 HOUR	22	RECYCLED ALUMINUM, 41% LF, PRELUY, 3/8" TUBE, WHITE, 230-270V, 2000 HOUR	74	1.702	2340	208208	42	0.205	2340	208208	0	0	0%	0	0.172	2088
240	Village Hall	Village Hall - 2nd Room 205 - Open Office	Quadraflex 2'x4' 24 Max ES 4000, 230-270V, 2000 HOUR	1	RECYCLED ALUMINUM, 41% LF, PRELUY, 3/8" TUBE, WHITE, 230-270V, 2000 HOUR	74	0.212	8760	104479	42	0.119	8760	104479	0	0	0%	0	0.092	653

Bldg #	BUILDING	LOCATION	SYSTEM INFORMATION				EXISTING SYSTEM				PROPOSED SYSTEM						SAVINGS	
			EXISTING FEATURE	CITY	NEW/FUNCTION/PRIORITY	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KWH	SEN QTY	CONTROL DESCRIPTION	OFF %	SEMS:KWH SAVINGS	KW Reduced
232	Village Hall	Village Hall 2nd, Room 205 - Open Office	See Room 205 for existing feature	1	SEE NEW/FUNCTION/PRIORITY	0	0.000	1	0	0.000	1	0	0	0	0%	0	0.000	0
233	Village Hall	Village Hall 2nd, Room 203 - Private Office	See Room 203 for existing feature	2	SEE NEW/FUNCTION/PRIORITY	43	0.148	2340	346.32	1.074	2340	301.24	1	Control: Manual Demand: Range 4 US Voltage: 208V Panel Coverage: 100% 380V/208V	43%	34.2108	0.062	210
234	Village Hall	Village Hall 2nd, Room 202 - Private Office	See Room 202 for existing feature	3	SEE NEW/FUNCTION/PRIORITY	43	0.148	2340	346.32	1.074	2340	301.24	1	Control: Manual Demand: Range 4 US Voltage: 208V Panel Coverage: 100% 380V/208V	43%	34.2108	0.062	210
235	Village Hall	Village Hall 2nd, Room 201 - Private Office	See Room 201 for existing feature	4	SEE NEW/FUNCTION/PRIORITY	43	0.148	2340	346.32	1.074	2340	301.24	1	Control: Manual Demand: Range 4 US Voltage: 208V Panel Coverage: 100% 380V/208V	43%	34.2108	0.062	210
236	Village Hall	Village Hall 2nd, Room 212 - Storage	See Room 212 for existing feature	5	SEE NEW/FUNCTION/PRIORITY	43	0.148	2340	346.32	1.074	2340	301.24	1	Control: Manual Demand: Range 4 US Voltage: 208V Panel Coverage: 100% 380V/208V	43%	34.2108	0.062	210
237	Village Hall	Village Hall 2nd, Room 209 - Conference Room	See Room 209 for existing feature	6	SEE NEW/FUNCTION/PRIORITY	43	0.148	2340	346.32	1.074	2340	301.24	1	Control: Manual Demand: Range 4 US Voltage: 208V Panel Coverage: 100% 380V/208V	43%	34.2108	0.062	210

SYSTEM INFORMATION					EXISTING SYSTEM				PROPOSED SYSTEM							SAVINGS			
FAC #	BUILDING	LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL kWh	WATTS EACH	TOTAL kW	OP HOUR	TOTAL kWh	SENQ QTY	CONTROL DESCRIPTION	OFF %	SENS. kWh SAVINGS	kWh Reduced	kWh Reduced
171	Village Hall	Village Hall - 2nd, Room 210 - Open Office	800 TriStar, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V, Programmable, Emergency Ballast	2	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.148	8760	119.48	43	0.086	8760	761.36	0		0%	0	0.002	94
172	Village Hall	Village Hall - 2nd, Room 211 - Lunch Room	800 TriStar, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V, Programmable	8	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.432	3504	458.26	43	0.218	3504	308.72	1	Controlled, Programmable, Standard Range, 8-15' Height, 10-20' Radial Coverage, Line Voltage 120/277V	39%	211.301	0.186	647
173	Village Hall	Village Hall - 2nd, Room 222 - Women's Restroom	800 TriStar, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V, Programmable, Emergency Ballast	1	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.074	6768	84.24	43	0.043	6768	176.08	1	Controlled, Programmable, Standard Range, 8-15' Height, 10-20' Radial Coverage, Line Voltage 120/277V	30%	113.004	0.031	105
174	Village Hall	Village Hall - 2nd, Room 227 - Women's Restroom	800 TriStar, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V	1	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.222	1968	248.48	43	0.129	1968	301.88	1	Ties in with sensor on another line	10%	80.958	0.046	39
175	Village Hall	Village Hall - 2nd, Room 227 - Men's Restroom	800 TriStar, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V, Programmable, Emergency Ballast	1	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.074	6768	84.24	43	0.043	6768	176.08	1	Controlled, Programmable, Standard Range, 8-15' Height, 10-20' Radial Coverage, Line Voltage 120/277V	30%	113.004	0.031	105
176	Village Hall	Village Hall - 2nd, Room 227 - Men's Restroom	800 TriStar, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V	1	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.222	1968	248.48	43	0.129	1968	308.86	1	Ties in with sensor on another line	30%	80.958	0.046	39
177	Village Hall	Village Hall - 2nd, Room 213 - Conference	800 TriStar, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V, Programmable, Emergency Ballast	8	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.432	3504	458.26	43	0.218	3504	308.72	1	Controlled, Programmable, Standard Range, 8-15' Height, 10-20' Radial Coverage, Line Voltage 120/277V	44%	265.438	0.186	93
178	Village Hall	Village Hall - 2nd, Room 218 - Storage	Industrial Pro-Series Fluorescent, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V	5	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.370	3240	418.6	43	0.115	3240	167.7	0		0%	0	0.155	122
179	Village Hall	Village Hall - 2nd, Room 218 - Storage	Industrial Pro-Series Fluorescent, 2' x 4', 24 P34T12, 134W, Mag ES Ballast, 120/277V, Emergency Ballast	1	RETRO, FLUORESCENT, 43W, LF BALLAST, 2x4' TUBE, WHITE, 360 DEGREE, 4000K, 120-277V, 21000 HOURS RATED LIFE, 3-YEAR WARRANTY	74	0.074	6768	84.24	43	0.043	6768	176.48	0		0%	0	0.031	27





Bldg #	SYSTEM INFORMATION			EXISTING SYSTEM				PROPOSED SYSTEM					SAVINGS					
	BUILDING	LOCATION	EXISTING FIXTURE CITY	NEW FIXTURE RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KW	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KW	SEAL CITY	CONTROL DESCRIPTION	OFF %	SEAL WITH SAVINGS	KW Potential	1976 Bldg Code
206	Village Hall	Village Hall - 2nd, Room 224 - Private Office	2	NEW FIXTURE RETROFIT	74	0.148	2380	546.33	42	0.086	2380	206.54	1	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	43%	84.3288	0.012	220
208	Village Hall	Village Hall - 2nd, Room 225 - Private Office	1	NEW FIXTURE RETROFIT	74	0.132	1320	510.44	41	0.129	1320	206.66	1	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	43%	121.7617	0.003	244
214	Village Hall	Village Hall - 2nd, Room 227 - Private Office	2	NEW FIXTURE RETROFIT	74	0.148	1300	342.33	41	0.086	1300	206.24	1	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	43%	84.3288	0.012	220
222	Village Hall	Village Hall - 2nd, Room 227 - Storage	2	NEW FIXTURE RETROFIT	74	0.148	700	115.44	41	0.086	700	87.08	1	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	43%	47.2464	0.012	83
221	Village Hall	Village Complex - Outdoor, South Canopy	8	NEW FIXTURE RETROFIT	0	0.000	1	0	0	0.000	1	0	0	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	0%	0	0.000	0
226	Village Hall	Village Complex - Outdoor, 337th Street	14	NEW FIXTURE RETROFIT	0	0.000	1	0	0	0.000	1	0	0	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	0%	0	0.000	0
225	Village Hall	Village Complex - Outdoor, West Canopy	2	NEW FIXTURE RETROFIT	0	0.000	3	0	0	0.000	3	0	0	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	0%	0	0.000	0
226	Village Hall	Village Complex - Outdoor, Parking Lot	22	NEW FIXTURE RETROFIT	0	0.000	3	0	0	0.000	3	0	0	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	0%	0	0.000	0
227	Village Hall	Village Complex - Outdoor, Parking Lot	4	NEW FIXTURE RETROFIT	0	0.000	1	0	0	0.000	1	0	0	Emerson InfraRed LED 3000K, 15W, 1000LM, 30° Beam, 1200mA, 16.3V	0%	0	0.000	0

P/N	BUILDING	SYSTEM INFORMATION			EXISTING SYSTEM				PROPOSED SYSTEM						SAVINGS						
		LOCATION	EXISTING FIXTURE	QTY	NEW FIXTURE/RETROFIT	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KW/H	WATTS EACH	TOTAL KW	OP HOUR	TOTAL KW/H	SEN. CITY	CONTROL DESCRIPTION	OFF %	SENS. KW/H	% SAVINGS	SEN. KW/H	% SAVINGS	100% REDUCED
228	Village Hall	Village Complex - Outdoor (Flag Light)	15x Fluorescent	3	30W, Not included in project	7	0.000	1	0	5	0.000	1	0	0	0.000	0%	0	0	0.000	0	100% Reduced
229	Village Hall	Village Complex - Outdoor (Amphitheatre)	15x Fluorescent	23	30W, Not included in project	2	0.000	1	0	0	0.000	1	0	0	0.000	0%	0	0	0.000	0	100% Reduced
230	Village Hall	Village Complex - Outdoor (Amphitheatre)	15x Fluorescent	1	30W, Not included in project	9	0.100	1	0	0	0.000	1	0	0	0.000	0%	0	0	0.000	0	100% Reduced
231	Village Hall	Village Complex - Outdoor (New Site Lighting)	15x Fluorescent	1	30W, Not included in project	2	0.000	1	0	0	0.000	1	0	0	0.000	0%	0	0	0.000	0	100% Reduced
232	Village Hall	Village Complex - Outdoor (New Site Lighting)	15x Fluorescent	1	30W, Not included in project	2	0.100	1	0	0	0.000	1	0	0	0.000	0%	0	0	0.000	0	100% Reduced



February 28, 2017

Mr. John Ingram/Mr. Napoleon Haney  
Public Works Director/Assistant Public Work Director  
Village of Orland Park  
15655 Ravinia Avenue  
Orland Park, IL 60464

Re: T-12 Lighting Upgrades

Mr. Ingram & Mr. Haney,

Per our conversation, CTS recommends the following solution for upgrading the remaining T-12 lighting fixtures within the Village Facilities:

The turnkey solution includes engineering with architectural fees/permits/drawings, project management, performance & payment bonds, commissioning, insurance, overhead/profit, and subcontractor work completion.

**Lighting Upgrades:**

The following Village Buildings contain inefficient T-12 lighting fixtures. These fixtures are inefficient, difficult to maintain and no longer being manufactured. The Village would like to replace all existing T-12 fixtures throughout the Village facilities. Currently the Department of Commerce and Economic Opportunity (DCEO) has incentives for replacement. This is the last year they will be administering these incentives. The program is being turned over to the utilities after May of 2017 and it is unlikely that T-12 incentives will be provided in the future.

- Village Hall
- Civic Center
- Public Works
- Recreation Center
- Robert Davidson Center
- Cultural Arts Center
- Recreation Administration Building
- Centennial Park

CTS Recommends replacement of the T-12 lighting with T-8 fluorescent fixtures in all facilities to improve lighting levels, reduce energy consumption and reduce maintenance costs throughout the Village.

We have provided the following proposal for upgrading a portion of this lighting in 2017 as part of the Phase I project. We would plan on submitting final paperwork prior to the grant deadline of May 8, 2017.

**Upgrade T-12 Lighting – Village Hall, Civic Center, & Recreation Center**

CTS recommends replacement of all T-12 lighting with more efficient T-8 fixtures existing in the following facilities:

- Village Hall
- Civic Center
- Recreation Center

**Total Pricing:     \$198,900**

**Note: Grants through the DCEO Illinois Energy Now program are estimated at \$23,814. CTS will submit all necessary paperwork for preapproval and final submission on behalf of the Village.**

Please contact me if you have any questions or need additional information. Thanks again.

Sincerely,

Michele A. James  
CTS Account Manager  
773.633.0691 (p)  
[mjames@ctsgroup.com](mailto:mjames@ctsgroup.com)