



ELECTRIC DEPARTMENT

2020

BUDGET PRESENTATION

TO CITY COUNCIL

AUGUST 19, 2019

**CITY OF NEWARK, DELAWARE
ELECTRIC DEPARTMENT
EXECUTIVE SUMMARY**

EXPENDITURE BUDGET					
Object Level Detail:	FY2019 Appr'd	FY2020 Rec'd	FY2019 App'd vs. FY2020 Rec'd	% +/- over FY2019 App'd	Comments
<i>Full-time Wages</i>	1,770,477	1,818,424	47,947	2.71%	
<i>Part-time Wages</i>	-	-	-	#DIV/0!	
<i>Other Wages</i>	317,814	266,636	(51,178)	-16.10%	
<i>Benefits</i>	1,212,372	1,428,638	216,266	17.84%	
Personnel Services	\$ 3,300,663	\$ 3,513,698	213,035	6.45%	*Sum of above listed wages and benefits
Utility Purchases	\$ 33,570,788	\$ 34,527,671	956,883	2.85%	
Materials and Supplies	\$ 310,830	\$ 303,380	(7,450)	-2.40%	
Contractual Services	\$ 1,684,820	\$ 1,692,867	8,047	0.48%	
Depreciation	\$ 278,832	\$ 192,675	(86,157)	-30.90%	*Finance Calculation
Other Expenditures	\$ 1,013,288	\$ 1,072,058	58,770	5.80%	
Subtotal:	\$ 40,159,221	\$ 41,302,349	\$ 1,143,128	2.85%	
Inter-Dept. Charges	\$ 705,156	\$ 870,996	165,840	23.52%	Reflects the cost share of City overhead which includes: Accounting, Electricity Used, Information Technology, Mailroom and Postage, Printing and Reproduction, Records and Utility Billing
Inter-Dept. Sales	\$ 506,900	\$ 413,100	(93,800)	-18.50%	
Total Operating Expenses:	\$ 41,371,277	\$ 42,586,445	\$ 1,215,168	2.94%	
Full-time Positions	23	23	0		No change in FTE from FY2019 to FY2020

CAPITAL IMPROVEMENT PLAN (CIP)		
Project ID:	Project Description:	Comments

New projects:

E2001	New Lines and Services	New Project
E2002	New Substation	New Project

Ongoing projects

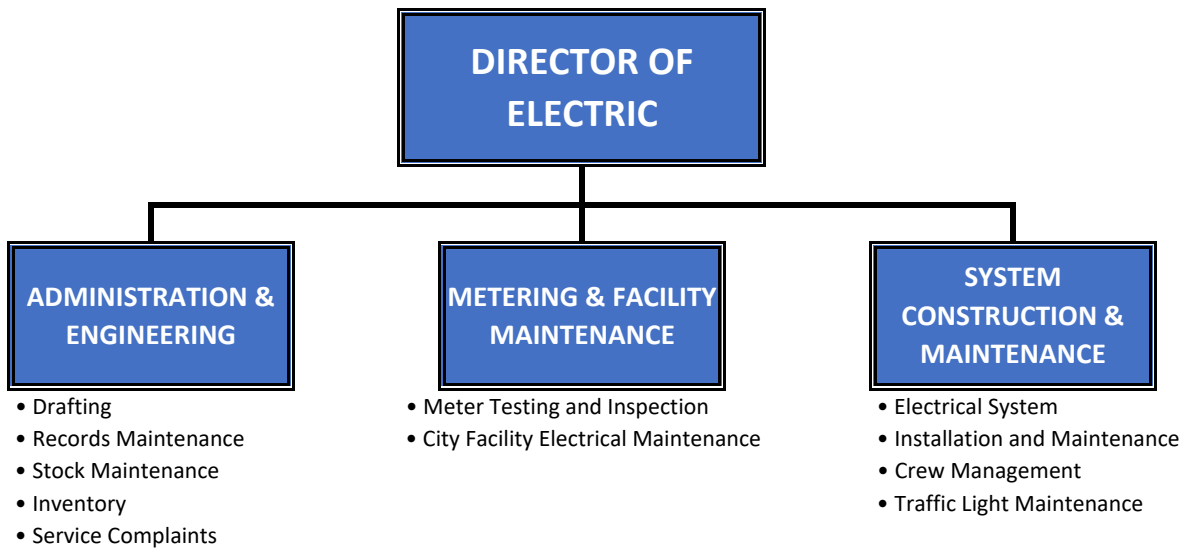
E1911	34kV Line 3402 Capacity Upgrade	Project listed in 2019-2023 CIP
E1912	35kV Disconnect Switches Replacement - Kershaw Substation	Project listed in 2019-2023 CIP
E1805	Line Extension - UD Farm	Project listed in 2019-2023 CIP
E1806	Christianstead Cable Addition	Project listed in 2019-2023 CIP
E1807	Relay Replacements - Kershaw Substation	Project listed in 2019-2023 CIP
E1808	Voltage Upgrade - North College Avenue	Project listed in 2019-2023 CIP
E1809	12.47kV Line Extension	Projected to be completed by EOY 2019
E1810	Lightning Arrestor Replacement	Project listed in 2019-2023 CIP
E1602	Circuit Breaker Replacement	Project listed in 2019-2023 CIP
E1502	Underground Distribution - UD Star Campus	Project listed in 2019-2023 CIP
E1203	CAD Software	Project listed in 2019-2023 CIP
E0503	SCADA and Automatic Switching	Project listed in 2019-2023 CIP
E8510	Transformer Maintenance (was once BF#6)	Project listed in 2019-2023 CIP
EEQSF	Equipment Replacement Program	Project listed in 2019-2023 CIP

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**CITY OF NEWARK, DELAWARE
ELECTRIC DEPARTMENT
ORGANIZATIONAL CHART**



**CITY OF NEWARK, DELAWARE
ELECTRIC DEPARTMENT
2020 DEPARTMENTAL NARRATIVE**

The City of Newark operates its own electric utility to provide electric services to 13,000 meters, supporting commercial and residential customers within city limits. Power is purchased on the wholesale power market and delivered by the City. The electric department is responsible for maintaining 175 miles of electric lines and coordinates its services through several programs. They include:

Meter Relay and Electrical Maintenance Program:

Responsible for installing and maintaining electrical systems in city buildings, water wells, water and wastewater pumping stations, traffic lights and control systems, meters, and other facilities.

Electrical Line Construction and Maintenance Program:

Responsible for maintaining the City's electric lines, substation sites, substation units, circuit breakers, and transformers.

In addition to maintaining the City's electrical distribution system, new power lines, substations and underground electric utilities are constructed and installed to expand services to new customers. Additional departmental responsibilities include maintaining and installing street lights and traffic signals, trimming trees along the electric right-of-way, and providing distribution and sub-transmission switching and sectionalizing. The electric department's staff is also responsible for plans review, drawings, and engineering analysis for construction work.

**CITY OF NEWARK, DELAWARE
ELECTRIC DEPARTMENT
2019 DEPARTMENTAL ACCOMPLISHMENTS**

Key accomplishments in 2019 include:

- The extension of 12kV distribution line along Christina Parkway. This line extension will provide increased capacity and back-up capacity for the Star Campus. This extension will also tie Sandy Brae substation transformer 64 to Chestnut Hill road transformers 74 and 94 to provide back-up capacity. The project is in progress, and we are on track to complete this project by the end of this year.
- The installation of 12kV distribution automation system. This 12kV distribution automation system will increase reliability to the UD Center Campus and North Campus as well as minimize our substation outages. The project is in progress, and we are on track to complete this project by the first quarter of 2020.
- Joined the APPA's Reliable Public Power Provider (RP3) Program. The Association's RP3 program is based on industry-recognized leading practices in for important disciplines:
 - Reliability
 - Safety
 - Workforce Development
 - System Improvement
- Being recognized by the PR3 program demonstrates to the community leaders, governing board members, suppliers, and service providers a utility's commitment to its employees, customers, and community. Additionally, an RP3 designation is a sign of a utility's dedication to operating an efficient, safe, and reliable distribution system.
- Electric cost of service and rate study.

**CITY OF NEWARK, DELAWARE
ELECTRIC DEPARTMENT
2020 DEPARTMENTAL GOALS**

Goals for 2020 include:

- In 2019, more 12kV reclosers will be installed to improve reliability.
- A 12kV distribution line will be extended at UD Farm to ensure capacity and reliable back-up capacity to the Star Campus, The University of Delaware South Campus and City customers on South College Avenue.
- The old 35kV oil circuit breaker will be replaced at Fremont Road substation.
- Old electromechanical relays at Kershaw substation will be replaced with microprocessor-based replays.

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ELECTRIC DEPARTMENT

GENERAL OPERATING BUDGET

**CITY OF NEWARK, DELAWARE
2020 OPERATING BUDGET**

Electric Fund - Electric Department

Expenditures:

ELECTRIC DEPARTMENT - SUMMARY	2017 ACTUAL	2018 ACTUAL	2019 BUDGET AS AMENDED	2020 BUDGET	\$ DIFFERENCE FROM 2019-20	% DIFFERENCE FROM 2019-20
<u>REVENUES</u>						
Sale of Electricity	\$ 52,050,273	\$ 51,626,068	\$ 52,608,369	\$ 54,056,896	\$ 1,448,527	2.8%
No. of K.W.H.'s (Thousands)	415,969	425,918	436,756	444,863	8,107	1.9%
Inter-Dept. Charges	555,400	508,100	506,900	413,100	(93,800)	-18.5%
Penalties	96,723	80,000	95,000	98,800	3,800	4.0%
Service Fees	84,697	55,000	65,000	81,800	16,800	25.8%
New Services	133,631	40,000	125,000	250,000	125,000	100.0%
Application Fees	102,210	115,000	107,000	102,000	(5,000)	-4.7%
Solar Revenues	42,412	41,500	39,600	36,600	(3,000)	-7.6%
Other Revenues	160,523	47,000	45,780	43,210	(2,570)	-5.6%
Interest Revenue	122,330	65,000	125,000	151,100	26,100	20.9%
Subtotal	\$ 53,348,199	\$ 52,577,668	\$ 53,717,649	\$ 55,233,506	\$ 1,515,857	2.8%
No. of K.W.H.'s (Thousands)	460,219	456,650	470,837	478,577	7,740	1.6%
Gross Operating Revenue	\$ 53,348,199	\$ 52,577,668	\$ 53,717,649	\$ 55,233,506	\$ 1,515,857	2.8%
<u>OPERATING EXPENSES</u>						
Personnel Services	\$ 2,977,781	\$ 3,324,613	\$ 3,300,663	\$ 3,513,698	\$ 213,035	6.5%
Utility Purchases	33,699,575	33,547,114	33,570,788	34,527,671	956,883	2.9%
Materials and Supplies	238,318	215,348	310,830	303,380	(7,450)	-2.4%
Contractual Services	1,330,729	1,862,677	1,684,820	1,692,867	8,047	0.5%
Other Charges	1,097,567	1,046,899	1,292,120	1,264,733	(27,387)	-2.1%
Subtotal	\$ 39,343,970	\$ 39,996,651	\$ 40,159,221	\$ 41,302,349	\$ 1,143,128	2.8%
Inter-Departmental Charges (net of Inter-Departmental Sales)	1,010,354	1,173,798	1,212,056	1,284,096	72,040	5.9%
Total Operating Expenses	\$ 40,354,324	\$ 41,170,449	\$ 41,371,277	\$ 42,586,445	\$ 1,215,168	2.9%
Net Operating Margin (Before Capital Costs)	\$ 12,993,875	\$ 11,407,219	\$ 12,346,372	\$ 12,647,061	\$ 300,689	2.4%

**CITY OF NEWARK, DELAWARE
2020 OPERATING BUDGET**

Electric Fund - Electric Department

Expenditures:

PERSONNEL SERVICES		2017 ACTUAL	2018 ACTUAL	2019 BUDGET AS AMENDED	2020 BUDGET	\$ DIFFERENCE FROM 2019-20	% DIFFERENCE FROM 2019-20
5195102	6020 Supervisory	\$ 308,336	\$ 211,475	\$ 219,551	\$ 233,153	\$ 13,602	6.2%
5195102	6030 Engineering/Technical	285,154	297,420	313,352	323,677	10,325	3.3%
5195102	6040 Warehousing	56,197	58,056	60,509	67,579	7,070	11.7%
5195102	6080 Clerical	61,977	65,066	65,819	67,766	1,947	3.0%
5195102	6200 Line Maintenance	789,806	983,398	1,111,246	1,126,249	15,003	1.4%
5195102	6580 Service Award	40,470	37,752	39,594	42,035	2,441	6.2%
5195102	6590 Sick Pay	22,798	21,386	24,700	26,518	1,818	7.4%
5195102	6619 Standby Pay	29,658	35,357	36,720	38,083	1,363	3.7%
5195102	6620 Overtime	143,861	141,999	200,000	145,000	(55,000)	-27.5%
5195102	6622 Holiday Premium	1,283	699	-	-	-	0.0%
5195102	6880 Uniform Allowance	9,450	10,600	10,800	9,600	(1,200)	-11.1%
5195102	6885 Device Reimbursement	-	5,725	6,000	5,400	(600)	-10.0%
5195102	6920 Unemployment Comp. Ins.	7,962	6,890	6,072	6,600	528	8.7%
5195102	6930 Social Security Taxes	142,315	145,958	148,437	154,059	5,622	3.8%
5195102	6940 City Pension Plan	437,000	695,008	441,280	559,161	117,881	26.7%
5195102	6941 Defined Contribution 401(a) Plan	21,093	22,360	25,206	30,608	5,402	21.4%
5195102	6950 Term Life Insurance	7,485	7,378	7,647	7,680	33	0.4%
5195102	6960 Group Hospitalization Ins.	405,814	408,707	445,525	500,581	55,056	12.4%
5195102	6961 Long-Term Disability Ins.	2,991	2,997	3,172	4,106	934	29.4%
5195102	6962 Dental Insurance	25,855	23,930	25,198	27,420	2,222	8.8%
5195102	6963 Flexible Spending Account	184	173	126	63	(63)	-50.0%
5195102	6965 Post-Employment Benefits	165,539	132,090	98,090	125,098	27,008	27.5%
5195102	6966 Retirement Health Savings Account	6,326	6,350	7,000	8,526	1,526	21.8%
5195102	6967 Emergency Room Reimbursements	4,988	2,612	3,335	3,335	-	0.0%
5195102	6968 Vision Insurance Premiums	1,239	1,227	1,284	1,401	117	9.1%
TOTAL PERSONNEL SERVICES		\$ 2,977,781	\$ 3,324,613	\$ 3,300,663	\$ 3,513,698	\$ 213,035	6.5%

**ELECTRIC DEPARTMENT
WAGE AND SALARY BUDGET - 2020**

Title	Union Affiliation	Grade	2019 # of Positions	2019 Approved	2020 # of Positions	2020 Requested	Position Difference	\$ Difference	% Change
FULL TIME POSITIONS									
Director Of Electric	MGMT	34	1.0	\$ 111,126	1.0	\$ 117,882	0.0	\$ 6,756	6.1%
Deputy Director Of Electric	MGMT	31	1.0	\$ 108,425	1.0	\$ 115,271	0.0	\$ 6,846	6.3%
Electric Superintendent	MGMT	26	1.0	\$ 92,893	1.0	\$ 98,481	0.0	\$ 5,588	6.0%
Engineering Tech	CWA F/T	14	1.0	\$ 67,072	1.0	\$ 69,620	0.0	\$ 2,548	3.8%
Purchasing Asst	CWA F/T	13	1.0	\$ 65,819	1.0	\$ 67,766	0.0	\$ 1,947	3.0%
Senior Lineman	AFSCME LOCAL 3919 F/T	19	2.0	\$ 175,307	2.0	\$ 178,761	0.0	\$ 3,454	2.0%
Electric Mtr. Tech.	AFSCME LOCAL 3919 F/T	17	1.0	\$ 84,589	1.0	\$ 86,247	0.0	\$ 1,658	2.0%
Electrician	AFSCME LOCAL 3919 F/T	17	3.0	\$ 244,279	3.0	\$ 252,056	0.0	\$ 7,777	3.2%
Lineman 1st Class	AFSCME LOCAL 3919 F/T	17	5.0	\$ 415,867	5.0	\$ 423,704	0.0	\$ 7,837	1.9%
Lineman 2nd Class	AFSCME LOCAL 3919 F/T	14	2.0	\$ 142,003	2.0	\$ 135,659	0.0	\$ (6,344)	-4.5%
Junior Lineman	AFSCME LOCAL 3919 F/T	10	1.0	\$ 56,110	2.0	\$ 114,440	1.0	\$ 58,330	104.0%
Electric Groundhand	AFSCME LOCAL 3919 F/T	5	3.0	\$ 146,478	2.0	\$ 90,958	(1.0)	\$ (55,520)	-37.9%
Storekeeper	AFSCME LOCAL 3919 F/T	10	1.0	\$ 60,509	1.0	\$ 67,579	0.0	\$ 7,070	11.7%
Total Full-Time Positions			23.0	\$ 1,770,477	23.0	\$ 1,818,424	0.0	\$ 47,947	2.7%
OTHER									
Service Award				\$ 39,594		\$ 42,035		\$ 2,441	6.2%
Sick Pay				\$ 24,700		\$ 26,518		\$ 1,818	7.4%
Standby Pay				\$ 36,720		\$ 38,083		\$ 1,363	3.7%
Overtime				\$ 200,000		\$ 200,000		\$ -	0.0%
Uniform Allowance				\$ 10,800		\$ 9,600		\$ (1,200)	-11.1%
Device Reimbursements				\$ 6,000		\$ 5,400		\$ (600)	-10.0%
Total Other				\$ 317,814		\$ 321,636		\$ 3,822	1.2%
Total All			23.0	\$ 2,088,291	23.0	\$ 2,140,060	0.0	\$ 51,769	2.5%

**CITY OF NEWARK, DELAWARE
2020 OPERATING BUDGET**

Electric Fund - Electric Department

Expenditures:

MATERIALS AND SUPPLIES		2017 ACTUAL	2018 ACTUAL	2019 BUDGET AS AMENDED	2020 BUDGET	\$ DIFFERENCE FROM 2019-20	% DIFFERENCE FROM 2019-20
5195103	7110 Safety Shoes and Supplies	\$ 5,520	\$ 6,571	\$ 6,300	\$ 6,600	\$ 300	4.8%
5195103	7130 Tools, Field Sup., & Small Eq.	37,819	34,672	39,650	40,000	350	0.9%
5195103	7131 Information Technology Supplies	-	3,227	30,000	30,000	-	0.0%
5195103	7140 Uniforms	20,840	20,639	20,800	20,800	-	0.0%
5195103	7150 Office Supplies	1,257	2,949	4,500	3,500	(1,000)	-22.2%
5195103	7160 Books, Periodicals, Etc	1,451	462	680	780	100	14.7%
5195103	7260 Line Maintenance	120,782	98,889	110,000	110,000	-	0.0%
5195103	7270 Station Maintenance	39,621	26,829	57,200	50,000	(7,200)	-12.6%
5195103	7300 Machinery & Equip. Maintenance	-	-	500	500	-	0.0%
5195103	7330 Meter Testing & Repairs	225	150	2,000	2,000	-	0.0%
5195103	7350 Traffic Signal Maintenance	495	-	950	950	-	0.0%
5195103	7370 Street Light Maintenance	8,688	4,200	13,000	13,000	-	0.0%
5195103	7430 House Service Maintenance	20,719	19,461	23,500	23,500	-	0.0%
5195103	7480 Communication Equip. Maint.	557	-	500	500	-	0.0%
5195103	7540 Inventory Adjustment	(20,648)	(7,970)	-	-	-	0.0%
5195103	7550 Miscellaneous Supplies	992	5,269	1,250	1,250	-	0.0%
TOTAL MATERIALS AND SUPPLIES		\$ 238,318	\$ 215,348	\$ 310,830	\$ 303,380	\$ (7,450)	-2.4%

**CITY OF NEWARK, DELAWARE
2020 OPERATING BUDGET**

Electric Fund - Electric Department

Expenditures:

CONTRACTUAL SERVICES		2017 ACTUAL	2018 ACTUAL	2019 BUDGET AS AMENDED	2020 BUDGET	\$ DIFFERENCE FROM 2019-20	% DIFFERENCE FROM 2019-20
5195104	8010 Freight	\$ 115	\$ 848	\$ 950	\$ 950	\$ -	0.0%
5195104	8020 Advertising	749	641	800	800	-	0.0%
5195104	8030 Casualty Insurance	19,923	18,083	20,665	20,700	35	0.2%
5195104	8031 Insurance - Property	27,864	44,008	39,445	40,470	1,025	2.6%
5195104	8032 Insurance - Auto	12,740	24,682	24,990	25,327	337	1.3%
5195104	8033 Insurance - Broker	6,660	8,072	7,930	7,936	6	0.1%
5195104	8035 Insurance - Worker's Compensation	-	-	-	93,500	93,500	100.0%
5195104	8040 Merchant Fees and Discounts	529,143	531,696	590,000	590,000	-	0.0%
5195104	8050 Phone/Communications	10,203	4,434	6,000	2,950	(3,050)	-50.8%
5195104	8120 Outside Engineering (1)	40,428	62,430	131,000	50,000	(81,000)	-61.8%
5195104	8130 Building & Equipment Rental	10,264	10,888	14,000	14,000	-	0.0%
5195104	8131 Information Technology Cont'l	168,469	143,454	239,188	216,276	(22,912)	-9.6%
5195104	8190 Refuse Disposal	4,063	3,197	2,400	3,425	1,025	42.7%
5195104	8260 Line Maintenance	62,826	38,282	53,200	53,200	-	0.0%
5195104	8270 Station Maintenance	44,479	40,446	75,000	75,000	-	0.0%
5195104	8300 Machinery & Equip. Maintenance	5,927	4,992	8,120	8,120	-	0.0%
5195104	8311 Vehicle Accidents	-	(1,450)	-	-	-	0.0%
5195104	8312 Fleet & Facilities Services	167,153	716,786	218,138	229,579	11,441	5.2%
5195104	8420 Tree Removal	214,520	206,555	230,000	241,500	11,500	5.0%
5195104	8480 Communication Equip. Maint.	-	1,115	1,060	1,200	140	13.2%
5195104	8550 Misc. Contracted Services	4,203	2,402	5,000	5,000	-	0.0%
5195104	8570 Public Relations	-	116	14,000	10,000	(4,000)	-28.6%
5195104	8899 Facilities Mowing	1,000	1,000	2,934	2,934	-	0.0%
TOTAL CONTRACTUAL SERVICES		\$ 1,330,729	\$ 1,862,677	\$ 1,684,820	\$ 1,692,867	\$ 8,047	0.5%

(1) Includes additional funding for 2017 rate study.

**CITY OF NEWARK, DELAWARE
2020 OPERATING BUDGET**

Electric Fund - Electric Department

Expenditures:

OTHER CHARGES		2017 ACTUAL	2018 ACTUAL	2019 BUDGET AS AMENDED	2020 BUDGET	\$ DIFFERENCE FROM 2019-20	% DIFFERENCE FROM 2019-20
5195105	9001 Subvention - Utility Assistance	\$ -	\$ -	\$ 25,000	\$ 25,000	\$ -	0.0%
5195105	9002 Subvention - Aetna Hook and Ladder	-	-	48,400	48,400	-	0.0%
5195105	9004 Subvention - Newark Senior Center	-	-	60,000	60,000	-	0.0%
5195105	9010 Bad Debt Expense	190,119	129,369	120,000	170,769	50,769	42.3%
5195105	9020 Mileage & Small Bus. Expense	87	2	140	140	-	0.0%
5195105	9056 Debt Service Principal-Smart Meters	526,828	537,805	549,024	560,477	11,453	2.1%
5195105	9057 Debt Service Interest-Smart Meters	93,307	82,305	71,624	60,172	(11,452)	-16.0%
5195105	9060 Depreciation Expense	189,580	201,740	278,832	192,675	(86,157)	-30.9%
5195105	9070 Training & Continuing Educ/Conf	11,228	9,891	15,100	25,100	10,000	66.2%
5195105	9091 Solar Rebate	1,516	1,754	-	-	-	0.0%
5195105	9092 Notional Solar Cost	23,724	22,552	24,000	22,000	(2,000)	-8.3%
5195105	9093 Subvention Expense	60,134	60,321	-	-	-	0.0%
5195105	9094 Conservation Advisory Committee	1,044	1,160	100,000	100,000	-	0.0%
TOTAL OTHER CHARGES		\$ 1,097,567	\$ 1,046,899	\$ 1,292,120	\$ 1,264,733	\$ (27,387)	-2.1%

INTER-DEPT. CHARGES		2017 ACTUAL	2018 ACTUAL	2019 BUDGET AS AMENDED	2020 BUDGET	\$ DIFFERENCE FROM 2019-20	% DIFFERENCE FROM 2019-20
	Administrative Overhead	\$ 672,271	\$ 700,685	\$ 743,108	\$ 816,609	\$ 73,501	9.9%
	Billings and Accounting	308,049	492,026	442,890	478,497	35,607	8.0%
	Electricity	(397,166)	(387,895)	(360,187)	(331,319)	28,868	-8.0%
	Information Technology	83,848	86,381	68,930	90,296	21,366	31.0%
	Other Indirect Charges	(40,022)	(65,069)	(24,700)	(24,700)	-	0.0%
	Printing and Reproduction	135	125	182	182	-	0.0%
	Street Lights and Traffic Signals	(143,745)	(169,331)	(143,812)	(134,512)	9,300	-6.5%
	Warehousing	(28,416)	(38,464)	(21,255)	(24,057)	(2,802)	13.2%
TOTAL INTER-DEPT. CHARGES		\$ 454,954	\$ 618,458	\$ 705,156	\$ 870,996	\$ 165,840	23.5%

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ELECTRIC DEPARTMENT

CAPITAL IMPROVEMENTS PROGRAM

CITY OF NEWARK, DELAWARE
CAPITAL IMPROVEMENTS PROGRAM 2020-2024
(with current year amended budget)

ELECTRIC FUND - ELECTRIC DEPARTMENT

FUNDING SUMMARY					
	2020	2021	2022	2023	2024
New Funding:	\$ 1,417,000	\$ 975,000	\$ 1,410,000	\$ 1,038,000	\$ 15,945,000
*Prior Authorized Balance:	\$ 64,606	\$ -	\$ -	\$ 2,000,000	\$ -
2020-2024 Funding:	\$ 1,481,606	\$ 975,000	\$ 1,410,000	\$ 3,038,000	\$ 15,945,000
*Prior Authorized Balance includes 2019 carryover funding only.					
Total 5 Year	\$ 20,785,000				
	\$ 2,064,606				
	\$ 22,849,606				

PROJECT NUMBER	PROJECT NAME	*	2019 BUDGET AS AMENDED	RESERVES AND OTHER FUNDING	CURRENT FUNDING	2020	2021	2022	2023	2024	TOTAL
E2001	New Lines and Services	D	\$ 125,000	\$ -	\$ 130,000	\$ 130,000	\$ 135,000	\$ 140,000	\$ 145,000	\$ 145,000	\$ 695,000
E2002	New Substation	B	2,000,000	-	300,000	300,000	-	-	2,000,000	15,700,000	18,000,000
E1911	34kV Line 3402 Capacity Upgrade	D	-	-	-	-	250,000	250,000	-	-	500,000
E1912	35kV Disconnect Switches Replacement - Kershaw Substation	D	-	-	-	-	150,000	150,000	150,000	-	450,000
E1805	Line Extension - UD Farm	D	170,000	-	150,000	150,000	-	-	-	-	150,000
E1806	Christianstead Cable Addition	D	-	-	-	-	50,000	-	-	-	50,000
E1807	Relay Replacements - Kershaw Substation	D	-	-	50,000	50,000	50,000	50,000	50,000	-	200,000
E1808	Voltage Upgrade - North College Avenue	D	-	-	50,000	50,000	-	-	-	-	50,000
E1809	12.47kV Line Extension	D	100,000	-	-	-	-	-	-	-	-
E1810	Lightning Arrestor Replacement	D	-	-	-	-	-	-	235,000	-	235,000
E1602	Circuit Breaker Replacement	D	-	-	70,000	70,000	-	-	-	-	70,000
E1502	Underground Distribution - UD Star Campus	D	120,000	120,000	-	120,000	120,000	120,000	120,000	-	480,000
E1203	CAD Software	D	40,444	40,444	-	40,444	-	-	-	-	40,444
E0503	SCADA and Automatic Switching	D	655,000	-	250,000	250,000	-	450,000	-	-	700,000
E8510	Transformer Maintenance (was once BF#6)	B	-	24,162	-	24,162	-	-	-	-	24,162
EEQSF	Equipment Replacement Program	D	218,000	239,284	57,716	297,000	220,000	250,000	338,000	100,000	1,205,000
Total Electric Fund - Electric Department			\$ 3,428,444	\$ 423,890	\$ 1,057,716	\$ 1,481,606	\$ 975,000	\$ 1,410,000	\$ 3,038,000	\$ 15,945,000	\$ 22,849,606

PLANNED FINANCING SOURCES					
GROSS CAPITAL IMPROVEMENTS	\$	3,428,444	\$	423,890	\$ 1,057,716
LESS: USE OF RESERVES		(40,444)		(64,606)	-
VEHICLE & EQUIPMENT REPLACEMENT		(149,600)		(239,284)	-
GRANTS		-		-	-
BOND ISSUES		-		-	-
OTHER FINANCING SOURCES		(120,000)		(120,000)	-
NET CAPITAL IMPROVEMENTS	\$	3,118,400	\$	-	\$ 1,057,716

* Justification Codes:
A - Return on Investment
B - Public Safety
C - Community Health
D - Efficiency/Other



PROJECT NO: E2001
PROJECT TITLE: New Lines and Services
PROJECT STATUS: Reoccurring (with no end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 130,000	\$ 135,000	\$ 140,000	\$ 145,000	\$ 145,000	\$ 695,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ 130,000	\$ 135,000	\$ 140,000	\$ 145,000	\$ 145,000	\$ 695,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various locations in the City
PROJECT PRIORITY:	1 - Highest Priority Level Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	Perpetual
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	30 Yrs.
Est. Total Cost:	\$ 820,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ 125,000
% Complete (if underway):	15.2%
Balance to be funded ¹ :	\$ 695,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 375,300
Materials:	5195106.9760	\$ 319,700
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ 695,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

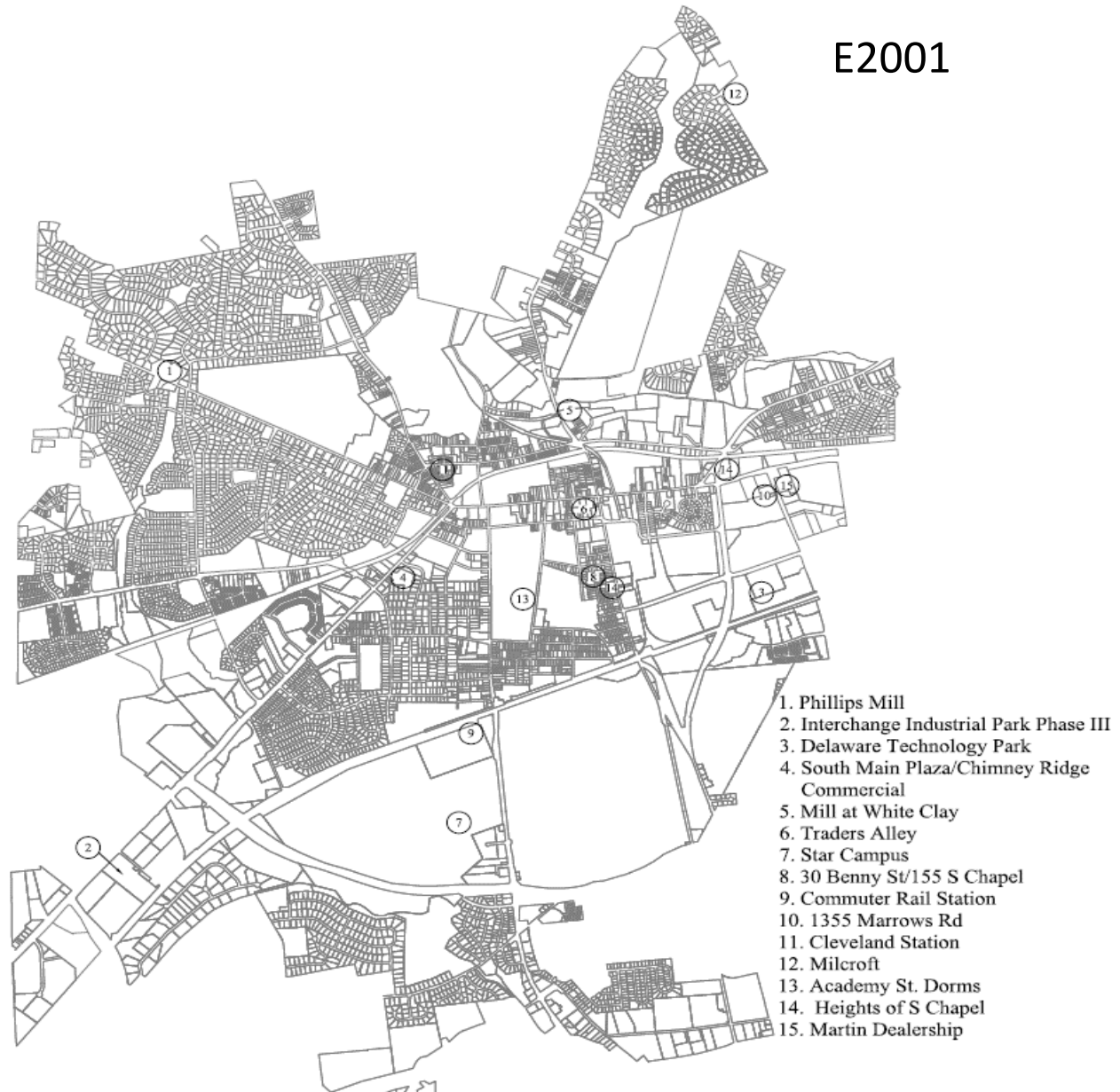
Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Installation of electric distribution lines in new developments. This includes both overhead and underground primary and secondary service lines. This project is required based on the obligation to serve new customers in the City.

PROJECT FINANCING BY PLAN YEAR												
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP		
CURRENT RESOURCES	125,000	-	125,000	\$ -	130,000	135,000	140,000	145,000	145,000	\$ 695,000		
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -		
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -		
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -		
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -		
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
TOTAL:	\$ 125,000	\$ -	\$ 125,000	\$ -	\$ 130,000	\$ 135,000	\$ 140,000	\$ 145,000	\$ 145,000	\$ 695,000		
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:		2020	2021	2022	2023	2024	TOTAL
					INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -

E2001: New Lines and Services
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E2001





PROJECT NO: E2002
PROJECT TITLE: New Substation
PROJECT STATUS: New Project

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 300,000	\$ -	\$ -	\$ -	\$ 15,700,000	\$ 16,000,000
*Prior Authorized Balance:		\$ -	\$ -	\$ 2,000,000	\$ -	\$ 2,000,000
2020-2024 Funding:	\$ 300,000	\$ -	\$ -	\$ 2,000,000	\$ 15,700,000	\$ 18,000,000

CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Transfer Station on Old S. Chapel St.
PROJECT PRIORITY:	2 - High Priority Level
Critical need to remediate failing service, prevent failure, or generate savings	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA

First Year in Program:	2019
Est. Completion Date:	2024
Est. Useful Life (in years):	50
Est. Total Cost:	\$ 18,000,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 18,000,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY

CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:		
Materials:		
Other Contracts:	5195106.9730	\$ 18,000,000
TOTAL PROJECT COST		\$ 18,000,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The city needs a new substation to increase system reliability. Our existing Kershaw substation which feeds the entire city is almost 40 years old. Adding another substation as a source improves system reliability as well as the capacity. Our existing infrastructure is not capable of handling the load increase at the STAR campus. This new substation will help with load increase at the STAR campus as well.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	300,000	-	-	-	-	\$ 300,000
CAPITAL RESERVES	2,000,000	-	-	\$ 2,000,000	-	-	-	2,000,000	-	\$ 2,000,000
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	15,700,000	\$ 15,700,000
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER Future Capital Projects Reserve	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ 2,000,000	\$ -	\$ -	\$ 2,000,000	\$ 300,000	\$ -	\$ -	\$ 2,000,000	\$ 15,700,000	\$ 18,000,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:					
					2020	2021	2022	2023	2024	TOTAL
					-	-	-	-	-	\$ -

E2002: New Substation
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PROJECT NO: E1911
PROJECT TITLE: 35kV Line 3402 Capacity Upgrade
PROJECT STATUS: New Project

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ 500,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ 500,000

CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various locations in the City
PROJECT PRIORITY:	4 - Medium
This project is a NEED and not a WANT, but no significant risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA

First Year in Program:	2019
Est. Completion Date:	2022
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 500,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 500,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY

CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 160,000
Materials:	5195106.9760	\$ 340,000
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ 500,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

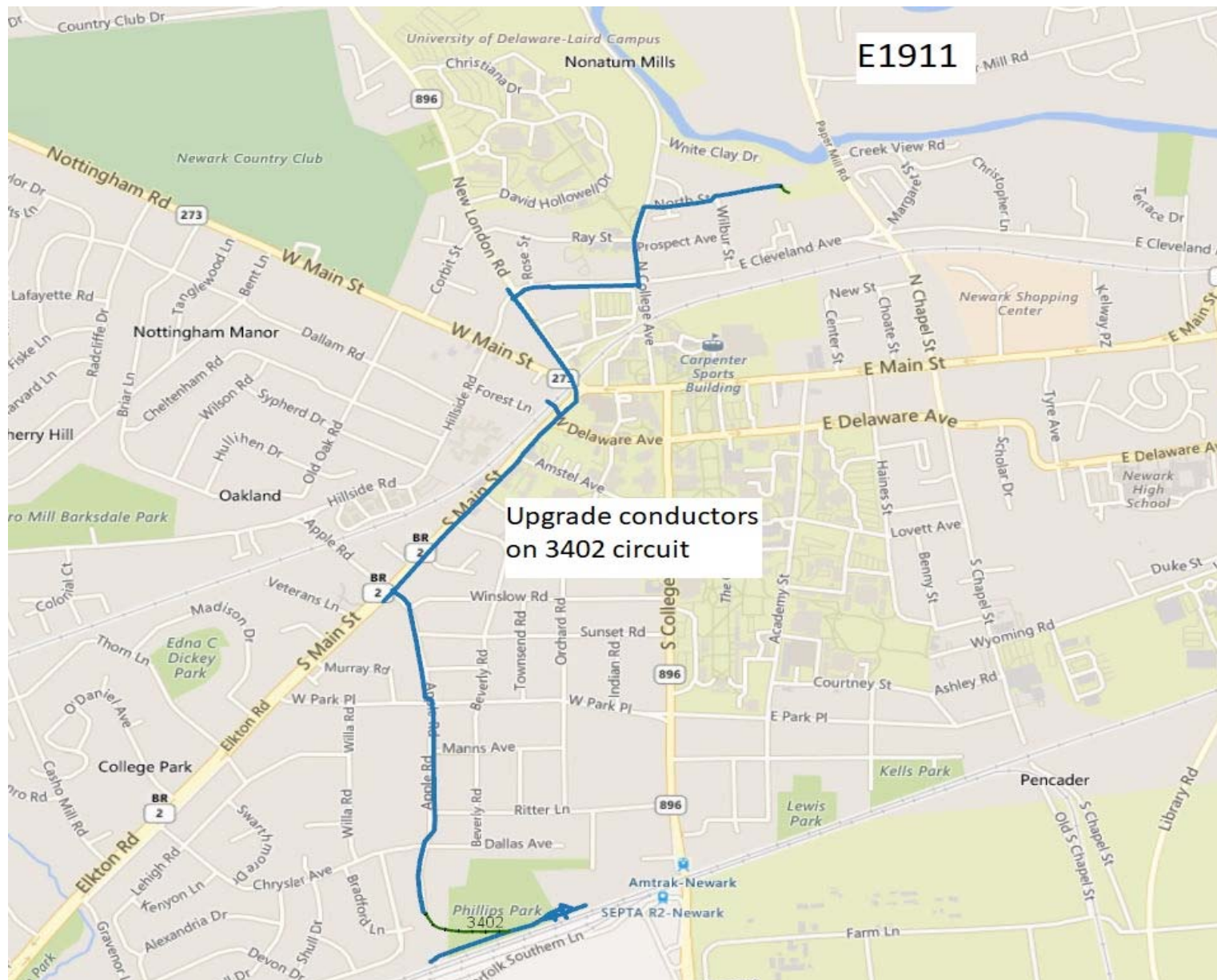
Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

This project will upgrade the aerial and underground cable on 35kV line 3402 to ensure capacity and reliable back-up capacity to the Phillips substation, Chestnut Hill substation, Sandy Brae substation and West Main substation. This upgrade will also allow us to tie this feeder to the new substation in the future if needed.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	250,000	250,000	-	-	\$ 500,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ 500,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2020	2021	2022	2023	2024	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -

E1911: 35kV Line 3402 Capacity Upgrade
Supporting Documentation - Page 1





PROJECT NO: E1912
PROJECT TITLE: 35kV Disconnect Switches
Replacement - Kershaw Substation
PROJECT STATUS: New Project

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ -	\$ 150,000	\$ 150,000	\$ 150,000	\$ -	\$ 450,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ -	\$ 150,000	\$ 150,000	\$ 150,000	\$ -	\$ 450,000

CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Kershaw Substation
PROJECT PRIORITY:	3 - Medium-High
The City would be taking a calculated risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA

First Year in Program:	2019
Est. Completion Date:	2023
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 450,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 450,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY

CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9830	\$ 150,000
Materials:	5195106.9730	\$ 300,000
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ 450,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

This project will replace 40 year old 35kV disconnect switches at Kershaw Substaion.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	150,000	150,000	150,000	-	\$ 450,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ 150,000	\$ -	\$ 450,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2020	2021	2022	2023	2024	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -

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PROJECT NO: E1805
PROJECT TITLE: Line Extension - UD Farm
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	University of Delaware: Farm
PROJECT PRIORITY:	4 - Medium
This project is a NEED and not a WANT, but no significant risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2018
Est. Completion Date:	2020
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 320,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ 170,000
% Complete (if underway):	53.1%
Balance to be funded ¹ :	\$ 150,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ -
Materials:	5195106.9760	\$ -
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ -

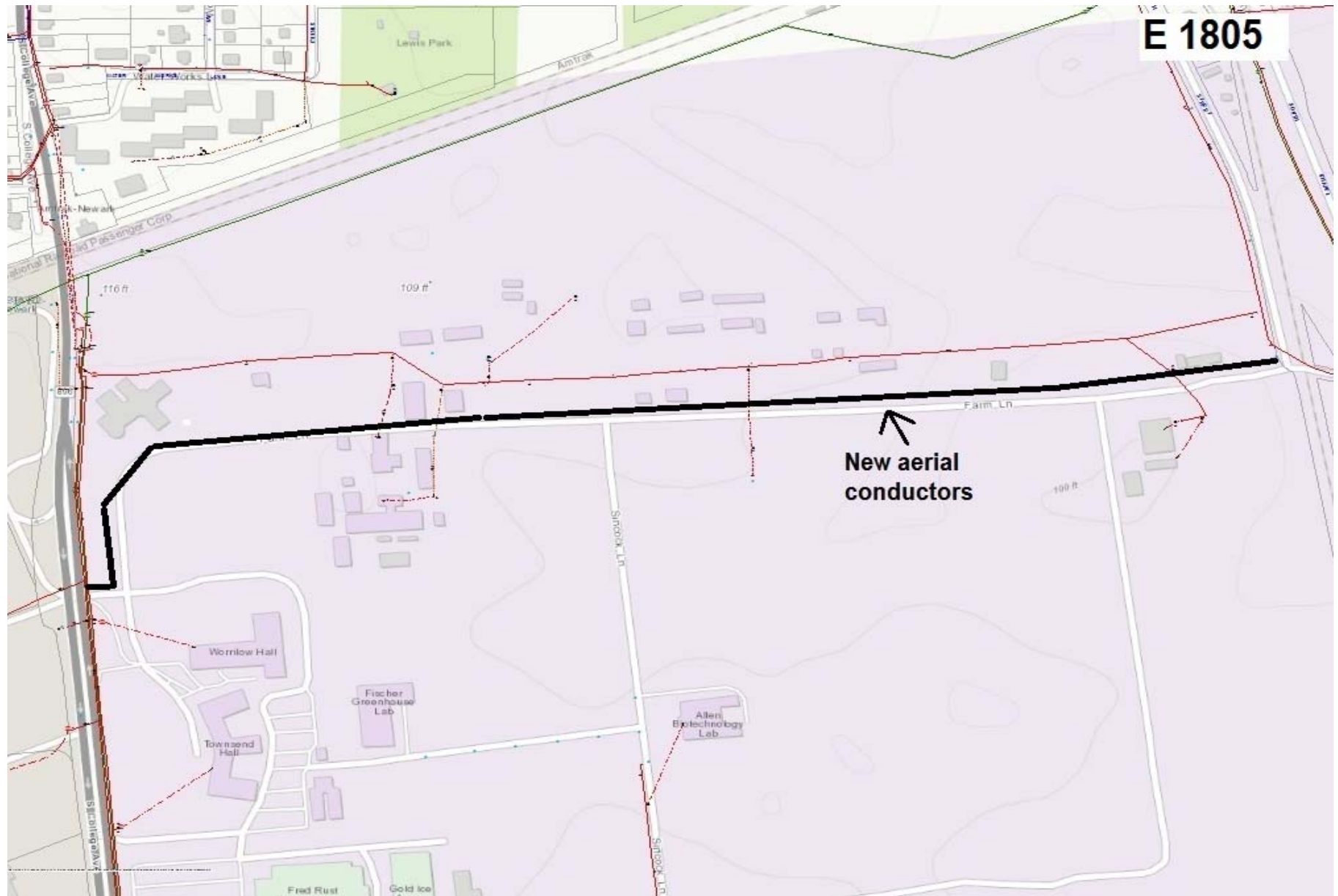
² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

To ensure capacity and reliable back-up capacity to the Star Campus, the University of Delaware South Campus and City customers on South College Avenue, it is proposed to install a new 12,470 volt circuit from Old South Chapel Street to South College Avenue through the University of Delaware Farm. This project is based on approval from the University of Delaware.

PROJECT FINANCING BY PLAN YEAR												
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP		
CURRENT RESOURCES	170,000	-	170,000	\$ -	150,000	-	-	-	-	\$ 150,000		
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -		
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -		
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -		
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -		
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
TOTAL:	\$ 170,000	\$ -	\$ 170,000	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000		
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:		2020	2021	2022	2023	2024	TOTAL
					INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -

E1805: Line Extension - UD Farm
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PROJECT NO: E1806
PROJECT TITLE: Christianstead Underground Primary Cable Addition
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000

CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Christianstead
PROJECT PRIORITY:	4 - Medium
This project is a NEED and not a WANT, but no significant risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA

First Year in Program:	2018
Est. Completion Date:	2020
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 50,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 50,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY

CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 8,000
Materials:	5195106.9760	\$ 42,000
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ 50,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

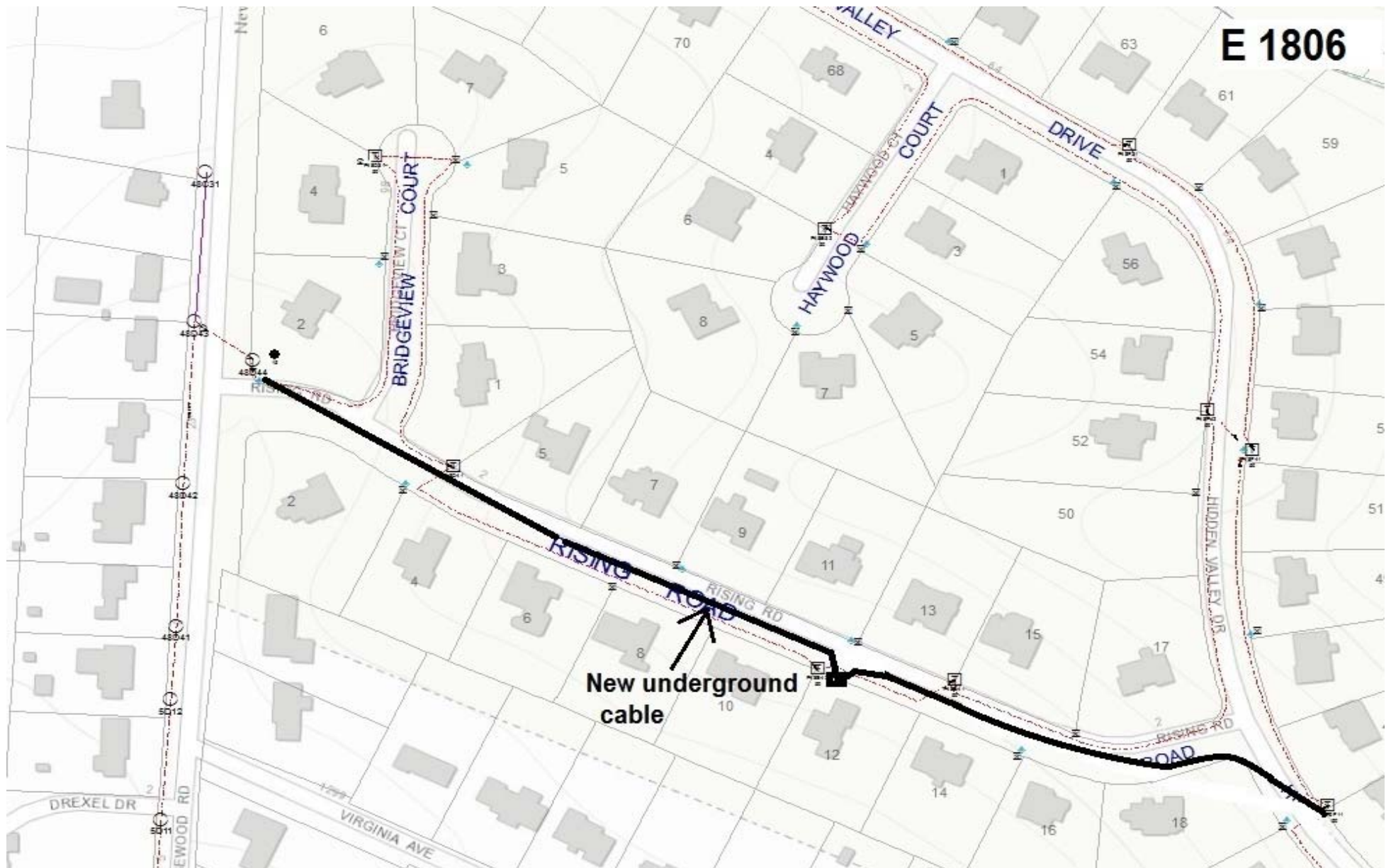
Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

An additional underground high voltage cable is needed in Christianstead to balance load during emergency conditions when an existing high voltage cable fails. When we experience a cable failure, the remaining cable can not be fused properly to coordinate with upstream fuses.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	50,000	-	-	-	\$ 50,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2020	2021	2022	2023	2024	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -

E1806: Christianstead Underground Primary Cable Addition
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PROJECT NO: E1807
PROJECT TITLE: Relay Replacements - Kershaw Substation
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ -	\$ 200,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ -	\$ 200,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Kershaw Substation
PROJECT PRIORITY:	5 - Low
This project is a NEED and not a WANT, but it can start in year two of this CIP or later	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2018
Est. Completion Date:	2023
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 200,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 200,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9830	\$ 70,000
Materials:	5195106.9730	\$ 130,000
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ 200,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:	
This project will replace electro mechanical relays on circuit breakers 7, 8 and 9 at Kershaw Substation and connect them to the SCADA system. This will allow us to see breaker status and also have remote control.	

PROJECT FINANCING BY PLAN YEAR												
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP		
CURRENT RESOURCES	-	-	-	\$ -	50,000	50,000	50,000	50,000	-	\$ 200,000		
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -		
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -		
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -		
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -		
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
TOTAL:	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ -	\$ 200,000		
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:		2020	2021	2022	2023	2024	TOTAL
					INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -



PROJECT NO: E1808
PROJECT TITLE: Voltage Upgrade - North College Avenue
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	North College Avenue
PROJECT PRIORITY:	5 - Low
This project is a NEED and not a WANT, but it can start in year two of this CIP or later	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA

First Year in Program:	2018
Est. Completion Date:	2020
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 50,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 50,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY

CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 23,800
Materials:	5195106.9760	\$ 26,200
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ 50,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Replace poles on North College Avenue and install a primary metering pole in preparation for a 4160 volt to 12470 volt upgrade of University buildings on North College Avenue.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	50,000	-	-	-	-	\$ 50,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					2020	2021	2022	2023	2024	TOTAL
OPERATING IMPACT:										
INCREMENTAL COSTS (NET SAVINGS)					-	-	-	-	-	\$ -



PROJECT NO: E1810
PROJECT TITLE: Lightning Arrestor Replacement
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ -	\$ -	\$ -	\$ 235,000	\$ -	\$ 235,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ -	\$ -	\$ -	\$ 235,000	\$ -	\$ 235,000

CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various locations in the City
PROJECT PRIORITY:	5 - Low
This project is a NEED and not a WANT, but it can start in year two of this CIP or later	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA

First Year in Program:	2018
Est. Completion Date:	2023
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 235,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 235,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY

CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 180,000
Materials:	5195106.9760	\$ 55,000
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ 235,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Replace older lightning arrestors on the 12.47kV system. This will prevent power outages and improve lightning protection on the distribution system.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	-	-	235,000	-	\$ 235,000
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 235,000	\$ -	\$ 235,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:				2020	2021	2022	2023	2024	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)				-	-	-	-	-	\$ -



PROJECT NO: E1602
PROJECT TITLE: Circuit Breaker Replacement
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Fremont Road Substation
PROJECT PRIORITY:	3 - Medium-High
The City would be taking a calculated risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2016
Est. Completion Date:	2020
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 70,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 70,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9830	\$ 10,000
Materials:	5195106.9730	\$ 45,000
Other Contracts:	5195106.9730	\$ 15,000
TOTAL PROJECT COST		\$ 70,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The 35kV oil circuit breaker installed in 1975 feeding transformer 47 at the Fremont Road Substation does not always open and close properly. Due to this problem and its age, it is recommended it be replaced with a vacuum type breaker.

PROJECT FINANCING BY PLAN YEAR												
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP		
CURRENT RESOURCES	-	-	-	\$ -	70,000	-	-	-	-	\$ 70,000		
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -		
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -		
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -		
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -		
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
TOTAL:	\$ -	\$ -	\$ -	\$ -	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000		
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:		2020	2021	2022	2023	2024	TOTAL
					INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -



PROJECT NO: E1502
PROJECT TITLE: Underground Distribution - UD Star
Campus
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ -	\$ 480,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ -	\$ 480,000

CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	University of Delaware: Star Campus
PROJECT PRIORITY:	1 - Highest Priority Level Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA

First Year in Program:	2015
Est. Completion Date:	2023
Est. Useful Life (in years):	30
Est. Total Cost:	\$ 600,000
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ 120,000
% Complete (if underway):	20.0%
Balance to be funded ¹ :	\$ 480,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY

CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:		\$ -
Materials:		\$ -
Other Contracts:	5195106.9760	\$ 480,000
TOTAL PROJECT COST		\$ 480,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Underground electrical distribution equipment needed for the Star Campus. Expenditures to be reimbursed by the Developer or Customer.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	-	-	-	-	\$ -
CAPITAL RESERVES	-	-	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER Developer or Customer	120,000	-	120,000	\$ -	120,000	120,000	120,000	120,000	-	\$ 480,000
TOTAL:	\$ 120,000	\$ -	\$ 120,000	\$ -	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ -	\$ 480,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:					
					2020	2021	2022	2023	2024	TOTAL
INCREMENTAL COSTS (NET SAVINGS)					-	-	-	-	-	\$ -



PROJECT NO: E1203
PROJECT TITLE: CAD Software

PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
*Prior Authorized Balance:	\$ 40,444	\$ -	\$ -	\$ -	\$ -	\$ 40,444
2020-2024 Funding:	\$ 40,444	\$ -	\$ -	\$ -	\$ -	\$ 40,444

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Municipal Building
PROJECT PRIORITY:	1 - Highest Priority Level Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2012
Est. Completion Date:	2019
Est. Useful Life (in years):	15
Est. Total Cost:	\$ 40,444
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 40,444

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:		\$ -
Materials:	5195106.9622	\$ -
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ -

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:	
This software is needed to model the city's electric distribution system. This software has engineering modules to assist in fault calculations, voltage drop calculations, coordination studies and feeder optimization.	

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	\$ -	-	-	-	-	-	\$ -
CAPITAL RESERVES	40,444	-	-	\$ 40,444	40,444	-	-	-	-	\$ 40,444
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ 40,444	\$ -	\$ -	\$ 40,444	\$ 40,444	\$ -	\$ -	\$ -	\$ -	\$ 40,444
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					2020	2021	2022	2023	2024	TOTAL
OPERATING IMPACT:					INCREMENTAL COSTS (NET SAVINGS)					
					-	-	-	-	-	\$ -



PROJECT NO: E0503
PROJECT TITLE: SCADA and Automatic Switching
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 250,000	\$ -	\$ 450,000	\$ -	\$ -	\$ 700,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ 250,000	\$ -	\$ 450,000	\$ -	\$ -	\$ 700,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various locations in the City
PROJECT PRIORITY:	1 - Highest Priority Level
	Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2005
Est. Completion Date:	2022
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 1,924,191
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ 1,224,191
% Complete (if underway):	63.6%
Balance to be funded ¹ :	\$ 700,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 140,000
Materials:	5195106.9760	\$ 483,000
Other Contracts:	5195106.9960	\$ 77,000
TOTAL PROJECT COST		\$ 700,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The auto transfer system will allow intelligent transfer of substations on the 34.5kV subtransmission system using reclosers to isolate a faulted circuit and switch a substation to a different circuit if all logic conditions are met. Large outages will be reduced to about a minute and a notification of a transfer will be sent to on call personnel to investigate.

Also includes (previous CIP E1802) - 15kV Automatic Switching:

This project will add 8 - 15kV reclosers to the existing automation software in 2018 to improve reliability to customers at the Delaware Technology Park and customers on Bellevue Road. The reclosers will automatically isolate a faulted circuit and switch the customers to a different circuit if the alternate circuit is available. In 2019, 11 reclosers (roughly \$22,700 each) will be installed to improve reliability to the UD Center Campus and North Campus. In 2022, 10 reclosers (roughly \$45,000 each) will be installed on South College and the Christina Parkway to improve reliability to the UD South Campus and the Star Campus.

Our existing SCADA system has become a legacy system so our SCADA provider has proposed to the City to upgrade our existing SCADA system to a newer platform in order to keep up with the industrial standards.

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	655,000	567,867	87,133	\$ -	250,000	-	450,000	-	-	\$ 700,000
CAPITAL RESERVES	569,191	-	569,191	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ 1,224,191	\$ 567,867	\$ 656,324	\$ -	\$ 250,000	\$ -	\$ 450,000	\$ -	\$ -	\$ 700,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:					
					2020	2021	2022	2023	2024	TOTAL
INCREMENTAL COSTS (NET SAVINGS)					-	-	-	-	-	\$ -



PROJECT NO: E8510
PROJECT TITLE: Transformer Maintenance
PROJECT STATUS: In Progress (with end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
*Prior Authorized Balance:	\$ 24,162	\$ -	\$ -	\$ -	\$ -	\$ 24,162
2020-2024 Funding:	\$ 24,162	\$ -	\$ -	\$ -	\$ -	\$ 24,162

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various
PROJECT PRIORITY:	4 - Medium
This project is a NEED and not a WANT, but no significant risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	1985
Est. Completion Date:	2020
Est. Useful Life (in years):	20
Est. Total Cost:	\$ 24,162
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ -
% Complete (if underway):	0.0%
Balance to be funded ¹ :	\$ 24,162

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:	5195106.9860	\$ 4,832
Materials:	5195106.9760	\$ 19,330
Other Contracts:		\$ -
TOTAL PROJECT COST		\$ 24,162

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:	
Ongoing testing and disposal of PCB contaminated pole mounted transformers to comply with EPA regulations.	

PROJECT FINANCING BY PLAN YEAR												
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP		
CURRENT RESOURCES	-	-	-	\$ -	-	-	-	-	-	\$ -		
CAPITAL RESERVES	24,162	-	-	\$ 24,162	24,162	-	-	-	-	\$ 24,162		
EQUIPMENT REPLACEMENT	-	-	-	\$ -	-	-	-	-	-	\$ -		
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -		
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -		
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -		
TOTAL:	\$ 24,162	\$ -	\$ -	\$ 24,162	\$ 24,162	\$ -	\$ -	\$ -	\$ -	\$ 24,162		
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:		2020	2021	2022	2023	2024	TOTAL
					INCREMENTAL COSTS (NET SAVINGS)		-	-	-	-	-	\$ -



PROJECT NO: EEQSF
PROJECT TITLE: Equipment Replacement Program
PROJECT STATUS: Reoccurring (with no end date)

FUNDING SUMMARY:

*Prior Authorized Balance includes 2019 carryover funding only.

	2020	2021	2022	2023	2024	Total 5 Year
New Funding:	\$ 297,000	\$ 220,000	\$ 250,000	\$ 338,000	\$ 100,000	\$ 1,205,000
*Prior Authorized Balance:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020-2024 Funding:	\$ 297,000	\$ 220,000	\$ 250,000	\$ 338,000	\$ 100,000	\$ 1,205,000

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	Electric
DIVISION:	Electric
FUND:	Electric
PROJECT LOCATION:	Various
PROJECT PRIORITY:	1 - Highest Priority Level Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	Perpetual
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	Various
Est. Total Cost:	\$ 1,575,784
Est. Spend @ 12/31/2019 (if underway) ¹ :	\$ 470,784
% Complete (if underway):	29.9%
Balance to be funded ¹ :	\$ 1,105,000

¹ For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	ACCOUNT NUMBER	AMOUNT
Labor:		\$ -
Materials:		\$ -
Other Contracts:	5195106.9623	\$ 1,105,000
TOTAL PROJECT COST		\$ 1,105,000

² Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Planned advance funding accumulated through depreciation to replace essential equipment when necessary.

Please reference the supporting documentation on the following page for the Vehicle Replacement Program Schedule (2020-2024).

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized ²	Actual Funds Utilized as of 03/31/19	Estimated Expenditures 04/01/19 - 12/31/19	Estimated Authorized Balance ² 12/31/19	2020	2021	2022	2023	2024	TOTAL 5 Year CIP
CURRENT RESOURCES	68,400	51,544	16,856	\$ -	57,716	57,239	73,500	121,770	43,424	\$ 353,649
CAPITAL RESERVES	252,784	252,784	-	\$ -	-	-	-	-	-	\$ -
EQUIPMENT REPLACEMENT	149,600	149,600	-	\$ -	239,284	162,761	176,500	216,230	56,576	\$ 851,351
GRANTS (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
BOND ISSUES	-	-	-	\$ -	-	-	-	-	-	\$ -
STATE REVOLVING LOAN	-	-	-	\$ -	-	-	-	-	-	\$ -
OTHER (SPECIFY)	-	-	-	\$ -	-	-	-	-	-	\$ -
TOTAL:	\$ 470,784	\$ 453,928	\$ 16,856	\$ -	\$ 297,000	\$ 220,000	\$ 250,000	\$ 338,000	\$ 100,000	\$ 1,205,000
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET					OPERATING IMPACT:					
					2020	2021	2022	2023	2024	TOTAL
					-	-	-	-	-	\$ -

CITY OF NEWARK, DELAWARE
VEHICLE REPLACEMENT PROGRAM SCHEDULE 2020-2024
ELECTRIC UTILITY

VEHICLE NUMBER	DESCRIPTION	PURCHASE DATE	PURCHASE PRICE	MILEAGE AS OF 7/31/2019	RECOM'D MILEAGE AT REPL	NORMAL YEARS LIFE	NORMAL REPL YEAR	BUDGET REPL YEAR	EQUIPMENT SINKING FUND BASIS	R E P L A C E M E N T C O S T S									
										2020	2021	2022	2023	2024					
<u>STAFF VEHICLES</u>																			
103	2018 Dodge Ram 2500, 4x4 Crew Cab	09/07/18	31,676	9,547	70,000	5	2018	2024	31,676					50,000					
116	2008 Ford Focus Sedan	06/06/08	11,281	64,640	60,000	9	2017	2020	11,281	30,000									
120	2012 Toyota Camry Hybrid	03/19/12	24,718	14,806	70,000	10	2022	2023	24,718				38,000						
<u>LINE TRUCKS</u>																			
100	1997 Int'l 4700 Stake Truck	03/14/97	39,285	57,370	110,000	--	--	--	39,285										
101	2017 Int'l 4300 Bucket Truck	01/13/17	174,983	18,011	75,000	8	2025	2025	174,983										
104	2013 International 7400 Digger	09/21/12	228,003	40,690	75,000	8	2020	2020	228,003	267,000									
105	2006 International 7400 Pole Truck	a. 09/01/06	166,920	34,432	65,000	8	2014	2019	166,920										
115	2008 EZ Hauler 4100 Mini Digger Derrick	09/12/08	120,732	--	--	8	2016	2021	120,732		155,000								
122	2017 Int'l 4300 Bucket Truck	01/13/17	197,637	14,304	65,000	8	2025	2025	197,637										
124	2009 Ford F750 Aerial Lift	a. 09/18/09	149,600	55,205	100,000	8	2018	2019	149,600										
126	2018 Dodge Ram 2500, 4x4 Crew Cab	09/07/18	32,729	10,980	90,000	8	2018	2027	32,729										
130	2013 Ford F750 Aerial Lift	01/14/14	176,500	29,627	75,000	8	2022	2022	176,500			250,000							
147	2015 Ford F750 Bucket Truck	07/31/15	164,100	23,211	75,000	8	2023	2023	164,100				250,000						
<u>PICK-UPS & VANS</u>																			
129	2011 Ford 3/4 Ton Utility Body	07/02/10	27,412	40,660	90,000	10	2020	2023	27,412				50,000						
132	2008 GMC Sierra 2500 Pickup Truck	10/03/08	20,579	42,861	65,000	10	2018	2021	20,579		35,000								
145	2017 Ford F250 Super Duty Utility Body 4x4	08/11/17	37,552	7,982	65,000	10	2027	2027	37,552										
<u>OTHER EQUIPMENT</u>																			
154	2005 Daewoo 5K Forklift	10/14/05	21,450	--	--	10	2015	2021	21,450		30,000								
155	2008 Komatsu FG45T 10K Forklift	11/30/15	24,900	--	--	10	2019	2024	24,900					50,000					
TOTAL ELECTRIC UTILITY											\$ 297,000	\$ 220,000	\$ 250,000	\$ 338,000	\$ 100,000				
										GROSS ACQUISITION COST									
										LESS: USE OF CAPITAL RESERVES					-	-	-	-	-
										LESS: USE OF CURRENT RESOURCES					(57,716)	(57,239)	(73,500)	(121,770)	(43,424)
										NET EQUIPMENT SINKING FUND TOTAL					\$ 239,284	\$ 162,761	\$ 176,500	\$ 216,230	\$ 56,576
a. This vehicle scheduled to be replaced in 2019.																			

a. This vehicle scheduled to be replaced in 2019.

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ELECTRIC DEPARTMENT

APPENDICES

CITY OF NEWARK, DELAWARE
ELECTRIC DEPARTMENT
APPENDIX A - OBJECT CODE 7131 AND 8131 - (2019 AND 2020 BUDGET COMPARISON)

ELECTRIC DEPARTMENT

Code	2020 IT Annual Operating Expense	Renewal	2019 Budget	2020 Budget	+/- Prior Year	Description
7131	Smart Meter Equipment Maintenance	As Needed	30,000.00	30,000.00	-	Proactive maintenance on smart meter wifi-network as well as batteries for 17 gatekeepers
8131	Auto Restoration System Software Maintenance	Annual	15,160.00	15,570.00	410.00	Electric Service Auto Restoration Software
8131	CYME Software Annual Maintenance	Annual	10,200.00	10,700.00	500.00	Electric Outage Simulation Software
8131	Elster License Fee (SLA) Tropos Software Maintenance	Annual	35,000.00	35,000.00	-	Smart-Meter System (Wireless Infrastructure)
8131	Elster Software Maintenance - EAMS	Annual	13,000.00	13,000.00	-	Smart-Meter System (Radio Infrastructure)
8131	Elster Upgrade	One Time	21,000.00	-	(21,000.00)	Smart-Meter System (Radio Infrastructure) - Upgrade
8131	Esri Small Government ELA	Annual	5,000.00	5,000.00	-	GIS Server, Client, Cloud Licensing
8131	FieldSense Application & Implementation	One Time	-	6,721.50	6,721.50	
8131	FieldSense Maintenance	Annual	-	1,750.00	1,750.00	
8131	Harris - Smartworks - Oracle Database Tuning	Annual	8,200.00	8,700.00	500.00	Smart Meter System - Proactive Oracle Database Maintenance
8131	Harris - Smartworks Software Maintenance	Annual	12,750.00	13,600.00	850.00	Smart-Meter System (Middleware)
8131	Harris - NorthStar Annual Maintenance	Annual	36,900.00	30,753.00	(6,147.00)	Utility Billing Software (including Smart-Meter System)
8131	Oracle Software Subscription Renewal (Not Harris)	Annual	2,500.00	2,500.00	-	Smart Meter - Oracle Database Software License
8131	Redhat Software Maintenance	Annual	1,250.00	1,100.00	(150.00)	Smart Meter - Linux Operating System for Servers
8131	SagLine Software	Annual	1,000.00	1,000.00	-	Electrical Engineering Utility Weight and Span Software
8131	Scada System Licensing Maintenance	Annual	56,000.00	51,400.00	(4,600.00)	Electric SCADA HMI and Device Licenses
8131	Tyler Technologies Munis Annual Maintenance	Annual	8,743.54	8,309.54	(434.00)	Tyler Technologies Munis - Finance and Accounting, Taxes, Permitting, Licenses, Work Order Management
8131	Verizon - Cellular/Data	Monthly	7,700.00	7,700.00	-	Computer Mobile Internet Connectivity
8131	VOIP Networks - Cloud9 VOIP Subscription	Monthly	3,472.22	3,472.22	-	VOIP Phone System
8131	Canon Financial - Copier Lease	Monthly	1,311.75	-	(1,311.75)	Canon Copier Leases
7131 and 8131 Subtotals:			269,187.51	246,276.26	(22,911.25)	
			\$ 269,188.00	\$ 246,276.00	\$ (22,911.00)	