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August 10, 2021

VIA: ELECTRONIC FILING

Mr. Adam J. Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Petition of Tampa Electric Company for Approval of Revised Underground
Residential Distribution Tariff
Dkt.: 20210064-EI

Dear Mr. Teitzman:

Attached for filing in the above docket is Tampa Electric Company's update to item 3(b) in response to Staff's Third Data Request (Nos. 1-3), propounded on July 26, 2021.

Thank you for your assistance in connection with this matter.

Sincerely,



James D. Beasley

JDB/bmp
Attachment

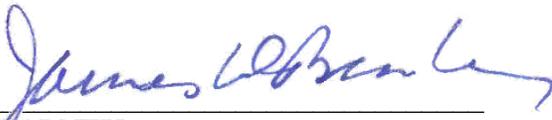
cc: All Parties of Record (w/attachment)
Holly Forrest, FPSC (w/attachment)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing updated responses of Tampa Electric Company to Staff's Third Data Request (Nos. 1-3), have been furnished by electronic mail on this 10th day of August 2021 to the following:

Shaw Stiller
Office of General Counsel
Florida Public Service Commission
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Tallahassee, FL 32399-0850
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ATTORNEY

**TAMPA ELECTRIC COMPANY
DOCKET NO. 20210064-EI
STAFF'S THIRD DATA REQUEST
REQUEST NO. 3
BATES PAGES: 3-229
FILED: AUGUST 2, 2021
REVISED: AUGUST 4, 2021
SUPPLEMENTED: AUGUST 10, 2021**

- 3.** Please provide the Net Present Value of operational costs, including storm restoration costs, calculation, and resulting URD differential for the low- and high-density subdivisions.
 - a. Using calculations based on the historical methodology used by TECO for an average of three years for 2018, 2019, and 2020. Provide all supporting workpapers to show the calculations.
 - b. Using calculations based on an average of five years for the years 2016, 2017, 2018, 2019, and 2020. Please provide all workpapers to show the calculations.

- A.**
 - a. Please see attached calculations based on the historical methodology for an average of three years for 2018, 2019, and 2020.
 - b. Please see attached calculations based on the historical methodology for an average of five years for 2016, 2017, 2018, 2019, and 2020.

OVERHEAD VS UNDERGROUND SUMMARY SHEET

Single Occupancy Low Density 210 Lot Subdivision
Cost per Lot

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
Labor	\$719.59	\$1,213.14	\$493.55
Material	\$708.94	\$1,227.97	\$519.03
TOTAL	\$1,428.53	\$2,441.11	\$1,012.58
NPV Operational Cost Including Storm Restoration and Lost Pole Attachment Revenue	\$1,868.48	\$1,129.27	-\$739.21
TOTAL Including NPV Operational Cost	\$3,297.01	\$3,570.38	\$273.37

COST PER SERVICE LATERAL OVERHEAD MATERIAL AND LABOR

Single Occupancy Low Density 210 Lot Subdivision
Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²	\$134.88	\$79.94	\$214.82
Primary	\$16.04	\$47.12	\$63.16
Secondary	\$121.20	\$160.21	\$281.41
Initial Tree Trim	\$0.00	\$0.00	\$0.00
Poles	\$150.71	\$278.42	\$429.13
Transformers	\$208.91	\$88.24	\$297.15
Subtotal	\$631.74	\$653.93	\$1,285.67
Stores Handling ³	\$77.20	\$0.00	\$77.20
Subtotal	\$708.94	\$653.93	\$1,362.87
Engineering		\$65.66	\$65.66
TOTAL	\$708.94	\$719.59	\$1,428.53

¹ Includes Administration, General, Energy Delivery Supervision, & Transportation

² Includes Meter

³ 12.22% of all Material

COST PER SERVICE LATERAL UNDERGROUND MATERIAL AND LABOR

Single Occupancy Low Density 210 Lot Subdivision
Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²	\$331.03	\$248.42	\$579.45
Primary	\$304.40	\$109.34	\$413.74
Secondary	\$79.99	\$64.92	\$144.91
Transformers	\$378.83	\$86.18	\$465.01
Pri. and Sec. Trenching	\$0.00	\$319.74	\$319.74
Service Trenching	\$0.00	\$318.88	\$318.88
Subtotal	\$1,094.25	\$1,147.48	\$2,241.73
Stores Handling ³	\$133.72	\$0.00	\$133.72
Subtotal	\$1,227.97	\$1,147.48	\$2,375.45
Engineering		\$65.66	\$65.66
TOTAL	\$1,227.97	\$1,213.14	\$2,441.11

¹ Includes Administration, General, Energy Delivery Supervision, & Transportation

² Includes Meter

³ 12.22% of all Material

TYPICAL SINGLE OCCUPANCY LOW DENSITY 210 LOT SUBDIVISION LAYOUT
 Overhead Design



TYPICAL SINGLE OCCUPANCY LOW DENSITY 210 LOT SUBDIVISION LAYOUT



OVERHEAD VS UNDERGROUND SUMMARY SHEET

Single Occupancy High Density 176 Lot Subdivision
Individually Metered
Cost per Lot

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
Labor	\$570.46	\$1,015.10	\$444.64
Material	\$551.19	\$866.33	\$315.14
TOTAL	\$1,121.65	\$1,881.43	\$759.78
NPV Operational Cost Including Storm Restoration and Lost Pole Attachment Revenue	\$1,387.02	\$528.93	-\$858.09
TOTAL Including NPV Operational Cost	\$2,508.67	\$2,410.36	-\$98.31

COST PER SERVICE LATERAL OVERHEAD MATERIAL AND LABOR

Single Occupancy High Density 176 Lot Subdivision
Individually Metered
Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²	\$142.24	\$91.83	\$234.07
Primary	\$12.88	\$35.17	\$48.05
Secondary	\$64.40	\$106.36	\$170.76
Initial Tree Trim			\$0.00
Poles	\$113.97	\$205.55	\$319.52
Transformers	\$157.68	\$70.27	\$227.95
Subtotal	\$491.17	\$509.18	\$1,000.35
Stores Handling ³	\$60.02	\$0.00	\$60.02
Subtotal	\$551.19	\$509.18	\$1,060.37
Engineering		\$61.28	\$61.28
TOTAL	\$551.19	\$570.46	\$1,121.65

¹ Includes Administration, General, Energy Delivery Supervision, & Transportation

² Includes Meter

³ 12.22% of all Material

COST PER SERVICE LATERAL UNDERGROUND MATERIAL AND LABOR

Single Occupancy High Density 176 Lot Subdivision
Individually Metered
Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²	\$288.33	\$260.66	\$548.99
Primary	\$138.27	\$61.14	\$199.41
Secondary	\$78.14	\$70.32	\$148.46
Transformers	\$267.25	\$68.77	\$336.02
Pri. and Sec. Trenching		\$175.02	\$175.02
Service Trenching		\$317.91	\$317.91
Subtotal	\$771.99	\$953.82	\$1,725.81
Stores Handling ³	\$94.34	\$0.00	\$94.34
Subtotal	\$866.33	\$953.82	\$1,820.15
Engineering		\$61.28	\$61.28
TOTAL	\$866.33	\$1,015.10	\$1,881.43

¹ Includes Administration, General, Energy Delivery Supervision, & Transportation

² Includes Meter

³ 12.22% of all Material

OVERHEAD VS UNDERGROUND SUMMARY SHEET

Single Occupancy High Density 176 Lot Subdivision
Multi-Unit Meter Centers
Cost per Lot

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
Labor	NA	NA	NA
Material	NA	NA	NA
TOTAL	NA	NA	NA

Tampa Electric's URD policy does not include "per lot" charges for multi-unit meter centers. These installations are covered in Tariff Section 5 Subsection 3.4.4.

COST PER SERVICE LATERAL OVERHEAD MATERIAL AND LABOR

Single Occupancy High Density 176 Lot Subdivision
Multi-Unit Meter Centers
Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²			\$0.00
Primary			\$0.00
Secondary			\$0.00
Initial Tree Trim			\$0.00
Poles			\$0.00
Transformers			\$0.00
Subtotal	\$0.00	\$0.00	\$0.00
Stores Handling ³			\$0.00
Subtotal	\$0.00	\$0.00	\$0.00
Engineering			\$0.00
TOTAL	\$0.00	\$0.00	\$0.00

¹ Includes Administration, General & Transportation

² Includes Meter

³ 12.22% of all Material

Tampa Electric's URD policy does not include "per lot" charges for multi-unit meter centers. These installations are covered in Tariff Section 5 Subsection 3.4.4.

COST PER SERVICE LATERAL UNDERGROUND MATERIAL AND LABOR

Single Occupancy High Density 176 Lot Subdivision
Multi-Unit Meter Centers
Cost per Lot

ITEM	MATERIAL	LABOR ¹	TOTAL
Service ²			\$0.00
Primary			\$0.00
Secondary			\$0.00
Transformers			\$0.00
Pri. and Sec. Trenching			\$0.00
Service Trenching			\$0.00
Subtotal	\$0.00	\$0.00	\$0.00
Stores Handling ³			\$0.00
Subtotal	\$0.00	\$0.00	\$0.00
Engineering			\$0.00
TOTAL	\$0.00	\$0.00	\$0.00

¹ Includes Administration, General & Transportation

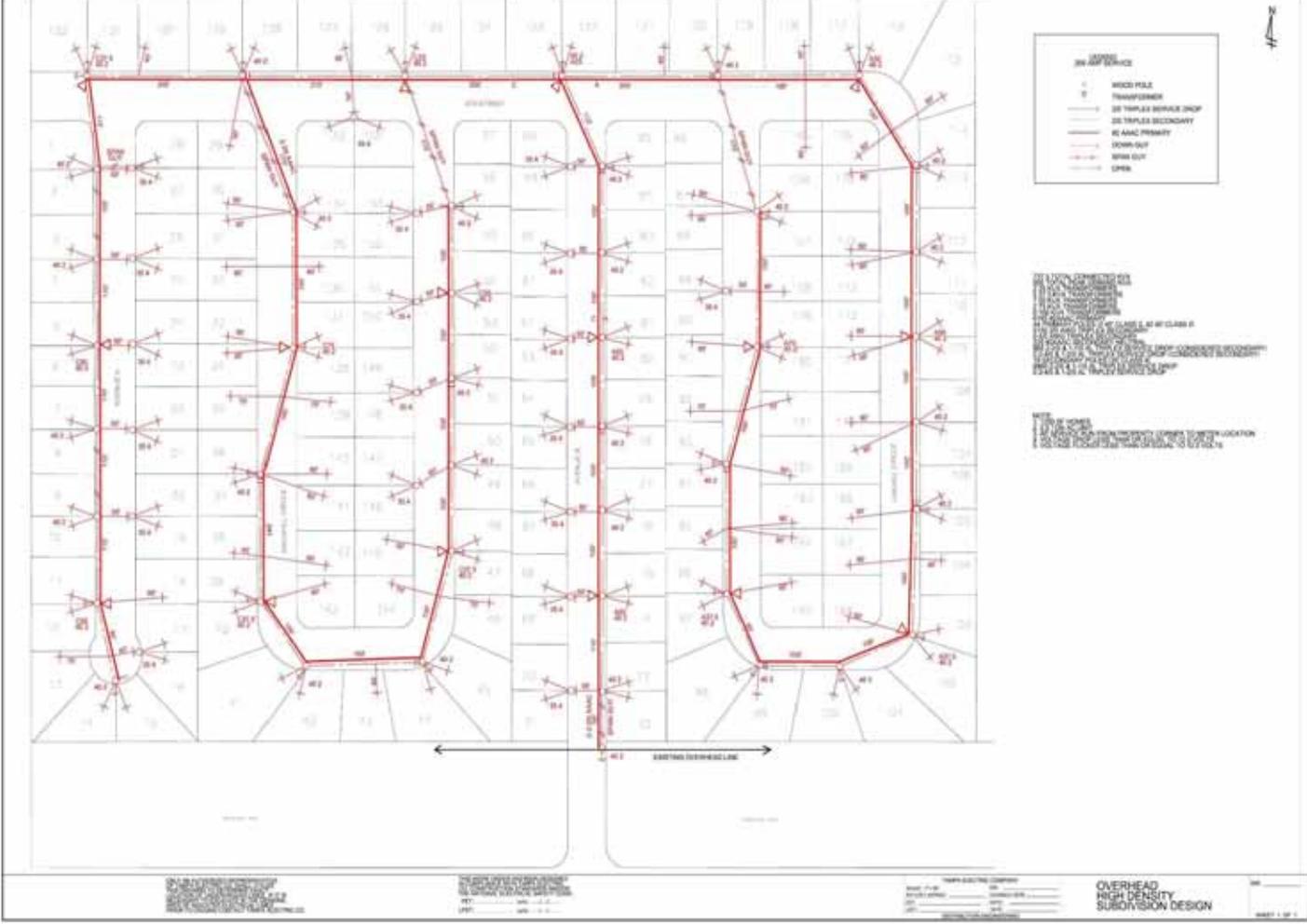
² Includes Meter

³ 12.22% of all Material

Tampa Electric's URD policy does not include "per lot" charges for multi-unit meter centers. These installations are covered in Tariff Section 5 Subsection 3.4.4.

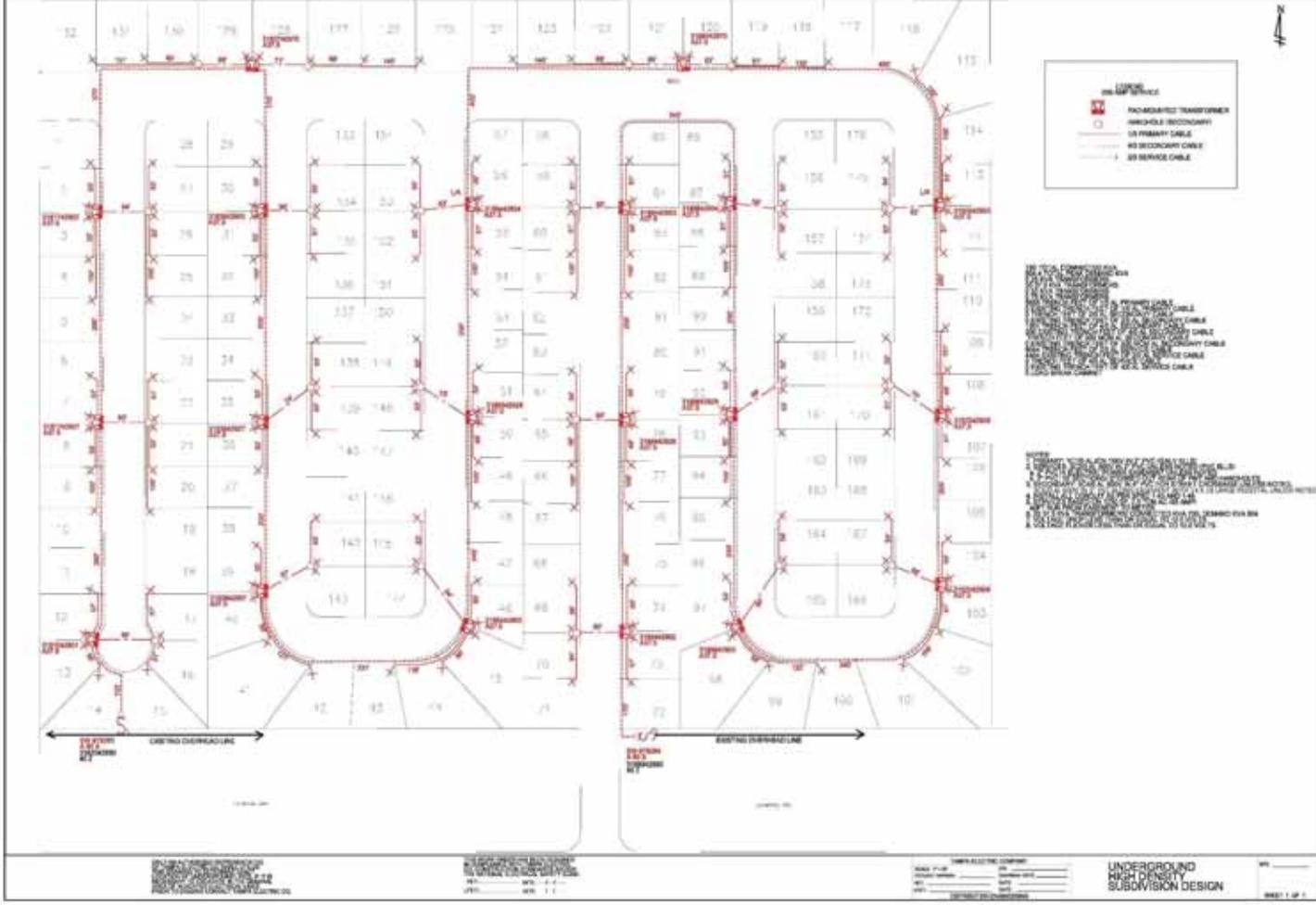
TYPICAL SINGLE OCCUPANCY HIGH DENSITY 176 LOT SUBDIVISION LAYOUT

Overhead Design - Individually Metered



TYPICAL SINGLE OCCUPANCY HIGH DENSITY 176 LOT SUBDIVISION LAYOUT

Underground Design - Individually Metered



AVERAGE UNDERGROUND FEEDER COSTS

Underground \$/Ft..._____	Overhead \$/Ft..._____	Difference \$/Ft..._____
With Favorable Trenching \$/Ft..._____		\$/Ft..._____
Additional Trenching Cost* (Difficult Trenching) \$/Ft..._____		\$/Ft..._____

* Difficult trenching charges include underground cost of cable-in-conduit and rock trench adder.

Note: Above costs reflect adjustment of \$_____ for overhead estimates and \$_____ for underground estimates.

Feeder cost are not included in Tampa Electric "per lot" charges. Feeder installation policy addressed in Tampa Electric's Tariff Section 5 Subsection 3.4.1.1.

ACTUAL OPERATIONAL DISTRIBUTION EXPENSES IN 2020
For Overhead and Underground

	OVERHEAD	UNDERGROUND
Operational Expense - Distribution	\$63,394,096	\$33,194,939

JOINT TRENCHING WITH OTHER UTILITIES
In RESIDENTIAL DISTRIBUTION

2011- 2020 ADDITIONS

<u>Date</u>	<u>Location</u>	<u>Work</u>	<u>Footage</u>	Total Amount Due From Other Utility	Total Amount Due To Other Utility
<u>Closed</u>		<u>Order</u>			
		<u>Number</u>			

Tampa Electric did not engage in joint trenching during calendar year 2020.

JOINT TRENCHING WITH OTHER UTILITIES
In RESIDENTIAL DISTRIBUTION
(continued)

<u>Year</u>	<u>Footage Feet</u>	<u>Amount Due From Other Utility</u>	<u>Amount Due To Other Utility</u>
Total For 2011	0	\$0.00	\$0.00
Total For 2012	0	\$0.00	\$0.00
Total For 2013	0	\$0.00	\$0.00
Total For 2014	0	\$0.00	\$0.00
Total For 2015	0	\$0.00	\$0.00
Total For 2016	0	\$0.00	\$0.00
Total For 2017	0	\$0.00	\$0.00
Total For 2018	0	\$0.00	\$0.00
Total For 2019	0	\$0.00	\$0.00
Total For 2020	0	\$0.00	\$0.00
10-Year Total	0	\$0.00	\$0.00

4/2021

LOW DENSITY MODEL
(210 lots)

Underground Costs (per lot)

With overheads filed in rate case

ITEM	MATERIAL		LABOR		TOTAL		EXPLANATION OF % CHANGE
	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	
SERVICE	331.03	64.92%	248.42	46.79%	579.45	56.63%	Underground material up, contractor rates up
PRIMARY	304.40	30.81%	109.34	51.40%	413.74	35.68%	Underground material up, Cable labor re-evaluation caused labor increase
SECONDARY	79.99	84.78%	64.92	28.28%	144.91	54.32%	Underground material up, Cable labor re-evaluation caused labor increase
TRANSFORMERS	378.83	9.14%	86.18	10.13%	465.01	9.32%	Underground material up, TEC & Contractor overhead down
TRENCHING							
PRIMARY & SECONDARY			319.74	-12.14%	319.74	-12.14%	Contractor rates down
SERVICES			318.88	-7.16%	318.88	-7.16%	Contractor rates down
SUB-TOTAL	1,094.25	32.82%	1,147.48	6.48%	2,241.73	17.89%	
STORES HANDLING	133.72	16.11%			133.72	16.11%	Higher material costs produces higher handling costs
SUB-TOTAL	1,227.97	30.77%	1,147.48	6.48%	2,375.45	17.79%	
ENGINEERING			65.66	0.00%	65.66	0.00%	
TOTAL	1,227.97	30.77%	1,213.14	6.10%	2,441.11	17.23%	
					1,129.27	<i>Net Present Value of the Life Cycle Operational Cost Including Storm Restoration and Lost Pole Attachment Revenue</i>	
Total with NPV Factor					3,570.38	<i>Total Including NPV of Operational Cost</i>	

Overhead Costs (per lot)

ITEM	MATERIAL		LABOR		TOTAL		EXPLANATION OF % CHANGE
	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	
SERVICE	134.88	70.67%	79.94	6.94%	214.82	39.69%	Material up, Labor up
PRIMARY	16.04	15.73%	47.12	12.78%	63.16	13.52%	Material up, Labor up
SECONDARY	121.20	11.24%	160.21	6.02%	281.41	8.21%	Material up, Labor up
INITIAL TREE TRIM			0.00		0.00		
POLES	150.71	8.41%	278.42	8.73%	429.13	8.62%	Material up, Labor up
TRANSFORMERS	208.91	3.31%	88.24	9.53%	297.15	5.08%	Material up, Labor up
SUB-TOTAL	631.74	16.33%	653.93	8.22%	1,285.67	12.06%	
STORES HANDLING	77.20	1.69%			77.20	1.69%	Higher material costs produces higher handling costs
SUB-TOTAL	708.94	14.53%	653.93	8.22%	1,362.87	11.41%	
ENGINEERING			65.66	0.00%	65.66	0.00%	
TOTAL	708.94	14.53%	719.59	7.41%	1,428.53	10.83%	
					1,868.48	<i>Net Present Value of the Life Cycle Operational Cost Including Storm Restoration and Lost Pole Attachment Revenue</i>	
Total with NPV Factor					3,297.01	<i>Total Including NPV of Operational Cost</i>	

Differential Costs (per lot)

ITEM	MATERIAL		LABOR		TOTAL	
	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE
Differential (per lot)	519.03	62.19%	493.55	4.25%	1,012.58	27.62%
NPV amount					-739.21	
Differential ¹ (per lot)	0.00		0.00		273.37	-155.68%

¹ Includes NPV of Operational Cost

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**UG Construction Cost Data Summary
Low Density (210-Lot) UG Subdivision Costs**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
Line #	Work Type/WR #	Description	(C + M) Material and Handling	Material	(F + L) Total Labor Plus Vehicles	(G + H + I) Total Labor	Base Labor	(G x J x TLF) TEC Labor Overheads	(G x K x CLF) Contract Labor Overheads	TEC Work %	Contractor Work %	Vehicle	(D x MHR) Material Handling	(C+E) Total
1	Transformers													
2	924920	Install & Ground Transformers	89,275.93	\$79,554.38	12,917.76	11,552.89	6,726.81	4,286.32	539.76	60%	40%	\$1,364.87	9,721.55	102,193.69
3	Contractor	Prepare Pad Site	-	-	5,179.75	5,179.75	4,314.30	-	865.45	0%	100%	-	-	5,179.75
4			89,275.93	79,554.38	18,097.51	16,732.64	11,041.11	4,286.32	1,405.21			1,364.87	9,721.55	107,373.44
5														
6	Primary													
7	924957	Primary Line - OH-UG Takeoffs	1,615.06	\$1,439.19	1,910.80	1,708.90	995.03	634.03	79.84	60%	40%	\$201.89	175.87	3,525.85
8	925017	Primary Conduit (Material Only)	25,221.49	\$22,475.04	-	-	-	-	-			-	2,746.45	25,221.49
9	925022	Primary Cable	44,899.79	\$40,010.51	21,050.29	18,826.15	10,961.75	6,984.83	879.57	60%	40%	\$2,224.14	4,889.28	65,950.08
10			71,736.34	63,924.74	22,961.08	20,535.05	11,956.78	7,618.86	959.41			2,426.03	7,811.60	94,697.43
11	Secondary													
12	925024	Secondary Cable	11,440.67	\$10,194.86	13,633.22	12,192.76	7,099.38	4,523.72	569.65	60%	40%	\$1,440.46	1,245.81	25,073.90
13	925026	Secondary Conduit (Material Only)	7,409.08	\$6,602.28	-	-	-	-	-			-	806.80	7,409.08
14			18,849.75	16,797.14	13,633.22	12,192.76	7,099.38	4,523.72	569.65			1,440.46	2,052.61	32,482.97
15	Service													
16	925028	Service Cable	26,226.15	\$23,370.30	48,611.12	48,611.12	40,489.02	-	8,122.10	0%	100%	-	2,855.85	74,837.27
17	925029	Set Meters	21,181.30	\$18,874.80	3,556.32	3,180.56	1,851.92	1,180.04	148.60	60%	40%	\$375.75	2,306.50	24,737.62
18	925030	Service Conduit Material	30,604.71	\$27,272.06	-	-	-	-	-			-	3,332.65	30,604.71
19			78,012.16	69,517.16	52,167.43	51,791.68	42,340.94	1,180.04	8,270.70			375.75	8,495.00	130,179.59
20														
21	Trenching													
22	Contractor	Primary Trenching	-	-	45,216.01	45,216.01	37,661.18	-	7,554.83	0%	100%	-	-	45,216.01
23	Contractor	Secondary Trenching	-	-	5,475.70	5,475.70	4,560.80	-	914.90	0%	100%	-	-	5,475.70
24	TEC Inspection	for Primary	-	-	16,452.69	15,594.97	-	-	-	100%	0%	857.72	-	16,452.69
25			-	-	67,144.40	66,286.68	42,221.98	-	8,469.73			857.72	-	67,144.40
26														
27	Contractor	Svc Trenching Pri. Prop	-	-	39,974.94	39,974.94	33,295.80	-	6,679.14	0%	100%	-	-	39,974.94
28	Contractor	Svc Trenching Rts-of-Wy	-	-	17,238.59	17,238.59	14,358.31	-	2,880.28	0%	100%	-	-	17,238.59
29	TEC Inspection	for Service	-	-	9,750.62	9,242.42	-	-	-	100%	0%	508.20	-	9,750.62
30			-	-	66,964.14	66,455.94	47,654.11	-	9,559.41			508.20	-	66,964.14
31														
32	Engineering	Design/Inspection/Coordination	-	-	13,788.39	13,788.39	-	-	-			-	-	13,788.39
33														
34	Totals (Sum of lines 4, 10, 14, 19, 25, 30, and 32)		\$ 257,874.18	\$ 229,793.42	\$ 254,756.18	\$ 247,783.15	\$ 162,314.30	\$ 17,608.95	\$ 29,234.11			\$ 6,973.04	\$ 28,080.76	\$ 512,630.36
35	Cost per Lot (line 34 /210 lots)		\$ 1,227.97		\$ 1,213.12									\$ 2,441.10

Adjustment Factors	
TEC Operations Labor Overhead Factor	TLF = 1.062
Contractor Labor Overhead Factor	CLF = 0.2006
Current year material handling charge rate	MHR = 0.1222

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UG Contractor Labor Estimate - 210 lot low density					
Prepare pad site (Primary Contractor Labor Costs)					
	Total	Cost	Pad sites		
Pad site preparation	Total	\$4,314.30	\$143.81	30	
Primary Trenching & Conduit (Primary Contractor Labor Costs)					
	Total	Cost	Feet		
	\$29,126.24	\$2.08	14003		Machine Trenching Cost Only
	\$8,061.06	\$0.51	15806		2" Conduit Installation (both trenching and in existing trench)
	\$0.00	\$0.00	14003		Pull-tape Installation (used exact length for labor cost not 5% extra)
	\$473.88	\$157.96	3		1ø splice box (30" x 48" x 18"), UG GR&S 6-21
Primary Trenching	Sub-total	\$37,661.18			
Secondary Trenching & Conduit (Primary Contractor Labor Costs)					
	Total	Cost	Feet		
	\$3,321.76	\$2.08	1597		Machine Trenching Cost Only
	\$0.00	\$0.51	0		2" Conduit Installation
	\$176.00	\$0.55	320		3" Conduit Installation
	\$1,063.04	\$0.64	1661		4" Conduit Installation
	\$0.00	\$0.00	1597		Pull-tape Installation (used exact length not 5% extra)
Secondary Trenching	Sub-total	\$4,560.80			
Primary Contractor Labor	Total	\$42,221.98			
Service Trenching & Conduit (Primary Contractor Labor Costs)					
	Total	Cost	Feet		
	\$7,473.44	\$2.08	3593		Trenching Cost -Trenching feet required for 2" service conduit
	\$1,196.00	\$2.08	575		Trenching Cost -Trenching feet required for 3" service conduit
	\$4,415.07	\$0.51	8657		2" Conduit Installation
	\$1,273.80	\$0.55	2316		3" Conduit Installation
	\$0.00	\$0.00	10973		Pull-tape Installation (used exact length not 5% extra)
Svc Trenching Rts-of-Wy	Sub-total	\$14,358.31			
Service Trenching & Conduit on Private Property (Service Contractor Labor Costs)					
	Total	Cost	Feet		
Svc Trenching Pri. Prop	Sub-total	\$33,295.80	\$5.26	6330	Trenching & conduit labor cost - Trenching feet = 30 ft x 210 lots
Service Cable (Service Contractor Labor Costs)					
	Total	Cost	Feet		
Service Cable Labor	Sub-total	\$40,489.02	\$2.34	17303	Installing 2/0 or 4/0 Cable in existing conduit from source to meter
Service Contractor Labor	Total	\$88,143.13			
Total Contractor Labor Cost	\$130,365.11				
Inspection (TECO Labor Cost)					
	TEC Labor	TEC Labor	TEC Vehicle	TEC Vehicle	
	Total	Rate	Feet/Qty	Rate	Total
	\$10,953.46	\$88.00	14003	\$4.84	\$602.44
	\$1,249.21	\$88.00	1597	\$4.84	\$68.71
	\$3,260.30	\$88.00	4168	\$4.84	\$179.32
	\$132.00	\$44.00	3	\$2.42	\$7.26
Inspection costs for Primary Contractor	Sub-total	\$15,594.97			\$857.72
	TEC Labor	TEC Labor	TEC Vehicle	TEC Vehicle	
	Total	Rate	Feet/Qty	Rate	Total
	\$9,240.00	\$44.00	210	\$2.42	\$508.20
Inspection costs for Service Contractor	Sub-total	\$9,242.42			\$508.20
Total TEC Inspection Cost	\$24,837.39				

Please modify the low density construction drawing legend as shown below.

UG Material List - 1501-2500 sq ft same trench 210 lot low density

1250	Total Connected KVA
1272.2	Total initial peak demand KVA
6	25 kVA Transformers
8	37.5 kVA Transformers
16	50 kVA Transformers
0	75 kVA Transformers
14003	Trench Feet of 1/0 AL Primary Cable
1803	Existing trench feet of 1/0 AL Primary Cable
0	Trench Feet of 2/0 AL Secondary Cable
0	Existing trench feet of 2/0 AL Secondary Cable
1597	Trench Feet of 4/0 AL Secondary Cable
384	Existing trench feet of 4/0 AL Secondary Cable
0	Trench Feet of 500 MCM AL Secondary Cable
0	Existing trench feet of 500 MCM AL Secondary Cable
9233	Trench Feet of 2/0 AL Service Cable
5064	Existing trench feet of 2/0 AL Service Cable
1265	Trench Feet of 4/0 AL Service Cable
1741	Existing trench feet of 4/0 AL Service Cable
0	Load Break Cabinet

Notes:

1. 1501-2500 SF Homes
2. 3.5 Ton AC Units
3. 40' Service run from property corner to meter location
4. Voltage drop less than or equal to 12.0 volts
5. Voltage flicker less than or equal to 12.0 volts

UG CU Totals (Material and Labor) - 2000 sq ft - 210 lot low density

Links allow this worksheet to summarize the material and CU entries from the ParkhurstPole worksheet through the BentTreePole worksheet. The totals are broken down into material construction units (CUs) for WorkPro work requests and labor inputs for the Contractor Labor worksheet.

Station All Stations - This information is used to create Work Requests to obtain costs.

<== Blue shading indicates fields to be updated. In WorkPro search for each Work Request Number shown in the blue areas. Then copy each work request which will create a new work request number to be entered.

Transfer the values from Qty and CU columns highlighted in yellow to the new WorkPro Work Requests to obtain new costs.

Those costs are then entered into the LDdifferentialMonth-Year.xls workbook to calculate the Low Density Differential cost.

Work Request

Number

924920

Transformers - Cost for: Material only, TEC labor & overhead, vehicle

Qty	CU	Definition	Total Connected KVA	
0	pku51a3n	25 kva, 6 tap 250mcm	0	
6	pku51c3n	25 kva, 8 tap 250mcm	150	150
0	pku51a4n	37.5 kva, 6 tap 250mcm	0	150
1	pku51b4n	37.5 kva, 6 tap 500mcm	37.5	187.5
0	pku51c4n	37.5 kva, 8 tap 250mcm	0	187.5
7	pku51d4n	37.5 kva, 8 tap 500mcm	262.5	450
0	pku51a5n	50 kva, 6 tap 250mcm	0	450
0	pku51b5n	50 kva,6 tap 500mcm	0	450
0	pku51c5n	50 kva,8 tap 250mcm	0	450
16	pku51d5n	50 kva,8 tap 500mcm	800	1250
0	pku51a6n	75 kva, 6 tap 250mcm	0	1250
0	pku51b6n	75 kva, 6 tap 500mcm	0	1250
0	pku51c6n	75 kva,8 tap 250mcm	0	1250
0	pku51d6n	75 kva, 8 tap 500mcm	0	1250
1	bushcover_arrester	open position on loop tx used as radial		1250
1	bushdummy_arrester	normal open tx in loop		
2	bushinsert_arrester	at adjacent tx to normal open in a loop		
33	grdmeg1/2	meggar ground, drive rods, 1 location, 1/2" rods		

Work Request

Number

924957

OH Primary - Cost for: Material only, TEC labor & overhead, vehicle

Qty	CU	Definition
4	PKE601WF1B	TEC material & labor to frame terminal pole CO & LA
4	FLOH103	Fuse
4	grdmeg1/2	meggar ground, drive rods, 1 location, 1/2" rods

Primary Trenching - Labor Only

Done by contractors

Used to determine contractor labor cost on the Contractor Labor worksheet

Qty	CU	Definition
14003	Trenching feet required for 2" primary conduit	
1803	Existing trench feet used for 2" primary conduit	
14003	Install Pulling Tape (blow in tape for pull - trench feet used to determine contractor cost)	

Work Request

Number

925017

Primary Conduit - Cost for Material only

Material used by contractors to install the conduit system

Qty	CU	Definition
40	COND2G	Conduit, galvanized 2". 10' with coupling, for up terminal pole TEC # 2004389
16156	COND2_SCHA	2" PVC Schedule A conduit TEC # 2004488
16506	MULE TAPE	Pulling tape - actual length - does not need any 5% adder TEC # 2007414
88	ELL2G90	2" elbow 90 galv 9.5" radius TEC # 2004395
1	ELL2G45	2" elbow 45 galv 9.5" radius TEC # 2004394
178	COUP2P	Coupling, 2" PVC (2 per elbow) TEC # 2004507
33	GLUECONDF	2"& 3" pvc 1 qt for 500' fast dry
3	HH1PHPRI	1ø splice box (30" x 48" x 18"), UG GR&S 6-21

Work Request

Number

925022

Primary Cable - Cost for: Material only, TEC labor & overhead, vehicle

Qty	CU	Definition	
4	PKU16WF	pothead, 38' 1c 1/0AL cable, 20' pvc, ground conn, wood pole	152
61	PKU11F	safebreak, 5' 1c 1/0AL cable, ground conn	305
0	PKU31P3	switch cubicle(lbc) 1ph, 200a deadfront, 3 position w/pad, grnd	
0	PKU31P4	switch cubicle(lbc) 1ph, 200a deadfront, 4 position w/pad, grnd	
0	FAULT1PA	fault indicator, 1ph 1/0-4/0 above grade, 400a	
15806	CA1/0CN1CAL_SOL	cable, 1/0AL concentric neutral 15kV, includes labor	15806
0	WIU1F	labor to pull ug cable in conduit	
		Our check! -Work request material 1/0AL concentric neutral 15kV cable total should be ==>	17060.9

Secondary Trenching - Labor Only - Done By Contractors

Used to determine contractor labor cost on the Contractor Labor worksheet

Qty	CU	Definition
0		Trenching feet required for 2" secondary conduit
0		Existing trench feet used for 2" secondary conduit
0		Trenching feet required for 3" secondary conduit used for 2/0 service cable
0		Existing trench feet used for 3" secondary conduit used for 2/0 service cable
0		Trenching feet required for 3" secondary conduit used for 4/0 service cable
320		Existing trench feet used for 3" secondary conduit used for 4/0 service cable
1597		Trenching feet required for 4" secondary conduit used for 4/0 service cable
64		Existing trench feet used for 4" secondary conduit used for 4/0 service cable
0		Trenching feet required for 4" secondary conduit used for 500 service cable
0		Existing trench feet used for 4" secondary conduit used for 500 service cable
1597		Install Pulling Tape (blow in tape for pull - trench feet used to determine contractor cost)

Work Request

Number

925024

Secondary Cable & Hand Holes - Cost for: Material only, TEC labor & overhead, vehi

Qty	CU	Definition	
0	wiu3sb	2c 2/0 1c 1 neutral, 600 v - added 5% here	This CU adds 5% and we want it to.
2171	CA4/0INS3CAL	2c 4/0 1c 2/0 neutral, 600v includes labor - added 5% This CU adds 5% and we want it to.	
0	wiu3sn	2c 500 1c 350 neutral, 600v - added 5% here	This CU adds 5% and we want it to.
0	insbus350/4	crab 4 position up to 350mcm	
0	insbus350/6	crab 6 position up to 350mcm	
0	insbus500/4	crab 4 position up to 500mcm	
69	insbus500/6	crab 6 position up to 500mcm	
0	insbus500/8	crab 8 position up to 500mcm	
0	wiu1f	labor to pull ug cable in conduit	
23	svhottx	energize ug secondary in transformer	
23	svhothh	energize ug secondary in hand hole	
0	hhsec	secondary h/h 12"x20", 3 or 4 2/0 or 4/0 svc w/ 2/0 or 4/0 sec	
23	HH LARGE PEDEST	secondary h/h 14"x18" large pedestal, 5 to 7 2/0 or 4/0 svc w/ 4/0 or 500 sec (any time 500 used)	

Work Request

Number

925026

Secondary Conduit - Cost for Material Only

Material used by contractors to install the conduit system

Qty	CU	Definition
0	COND2_SCHA	2" conduit sched A bell end TEC # 2004488
340	COND3_SCHA	3" conduit sched A bell end TEC # 2004517
1871	COND4_PVC_SCHA	4" conduit sched A bell end TEC # 2004529
2326	MULE TAPE	Pulling tape, plus adding 5% extra here TEC # 2007414
0	ELL2P90	2" elbow 90 PVC 9.5" radius TEC # 2004511
0	ELL2P45	2" elbow 45 PVC 9.5" radius TEC # 2004510
4	ELL3P90	3" elbow 90 PVC 13" radius TEC # 2004524
0	ELL3P45	3" elbow 45 PVC 13" radius TEC # 2004523
42	ELL4P90	4" elbow 90 PVC 16" radius TEC # 2004538
0	ELL4G45	4" elbow 45 galv 16" radius TEC # 2004427
0	COUP2P	Coupling, 2" PVC (2 per elbow) TEC # 2004507
8	COUP3P	Coupling, 3" PVC (2 per elbow) TEC # 2004521
84	COUP4P	Coupling, 4" PVC (2 per elbow) TEC # 2004535
1	GLUECONDF	2"& 3" pvc 1 qt for 500' fast dry
8	GLUECONDM	4"& 6" pvc 1 qt for 250' medium dry

**Work Request
Number**

925028

Service Cable - Cost for Material Only

Material used by contractors to install the conduit system

Qty	CU	Definition	
16177	CA2/OINS3CAL	2c 2/0 & 1c 1 neutral, 600 v service cable	This CU adds 5% and we want it to.
3236	CA4/OINS3CAL	2c 4/0 & 1c 2/0 neutral, 600 v service cable	This CU adds 5% and we want it to.

**Work Request
Number**

925029

Set Meter - Cost for: Material only, TEC labor & overhead, vehicle

Qty	CU	Definition
210	meterlabor	
210	1900006	meter, kwh 30a 240v

Service Trenching - Labor Only - Done By Contractors

Used to determine contractor labor cost on the Contractor Labor worksheet

Qty	CU	Definition
188		Number of 2/0 services installed in 2" conduit
0		Number of 2/0 services installed in 3" conduit
23		Number of 4/0 services installed in 3" conduit
5640		Trenching feet for 2" service conduit on private property-service contractor
1880		Trenching feet for 10' stub of 2" service conduit installed by primary contractor
1713		Trenching feet for 2" service conduit installed by primary contractor
5064		Existing trench feet used for 2" service conduit installed by primary contractor
8657		Install Pulling Tape for 2" conduit (blow in tape for pull - Primary Contractor)
0		Trenching feet for 3" service conduit on private property-service contractor for 2/0 service
0		Trenching feet for 10' stub of 3" service conduit installed by primary contractor for 2/0 service
0		Trenching feet for 3" service conduit installed by primary contractor for 2/0 service
0		Existing trench feet used for 3" service conduit installed by primary contractor for 2/0 service
0		Install Pulling Tape for 3" conduit for 2/0 service (blow in tape for pull - Primary Contractor)
690		Trenching feet for 3" service conduit on private property-service contractor for 4/0 service
230		Trenching feet for 10' stub of 3" service conduit installed by primary contractor for 4/0 service
345		Trenching feet for 3" service conduit installed by primary contractor for 4/0 service
1741		Existing trench feet used for 3" service conduit installed by primary contractor for 4/0 service
2316		Install Pulling Tape for 3" conduit for 4/0 service (blow in tape for pull - Primary Contractor)

**Work Request
Number**

925030

Service Conduit - Cost for Material Only

Material used by contractors to install the conduit system

Qty	CU	Definition	Used by contractors to install conduit system
5640		Conduit for 2" service on private property-service contractor	
2820		Conduit for 10' stub of 2" service installed by primary contractor	
6777		Conduit for 2" service installed by primary contractor	
10537		Pulling Tape installed in 2" conduit by Primary Contractor)	
15237	COND2_SCHA	Total quantity of 2" conduit for work order - TEC # 2004488	
504	ELL2P90	2" elbow 90 PVC 9.5" radius TEC # 2004395	
0	ELL2P45	2" elbow 45 PVC 9.5" radius TEC # 2004394	
188	LOCKNUT2	2" galvanized Lock Nut TEC # 2004396	
2070	CONDFLEX2	2" Flexible PVC conduit TEC # 2004491	
188	ADAPT2F/M	2" PVC Adapter, male thread/female slip TEC # 2004493	
188	RISER2G7	2" PVC Service Riser TEC # 2004401	
1008	COUP2P	Coupling, 2" PVC (2 per elbow) TEC # 2004507	
690		Conduit for 3" service on private property-service contractor	
345		Conduit for 10' stub of 3" service installed by primary contractor	
2086		Conduit for 3" service installed by primary contractor	
2546		Pulling Tape installed in 3" conduit by Primary Contractor)	
3121	COND3_SCHA	Total quantity of 3" conduit for work order - TEC # 2004517	
69	ELL3P90	3" elbow 90 PVC 13" radius TEC # 2004524	
0	ELL3P45	3" elbow 45 PVC 13" radius TEC # 2004523	
23	RISER21/2G7	2-1/2" house riser TEC # 2004409	
23	LOCKNUT21/2	2-1/2" galvanized Lock Nut TEC # 2004408	
23	CONDFLEX3	3" Flexible PVC conduit TEC # ; Used by contractors to install conduit system	
23	ADAPT2F/F	2-1/2"PVC Adapter, male thread/female slip TEC # 2004462	
138	COUP3P	Coupling, 3" PVC (2 per elbow) TEC # 2004521	
37	GLUECONDF	2"& 3" pvc 1 qt for 500' fast dry	
13083	MULE TAPE	Total Pulling Tape installed in conduit by Primary Contractor) TEC # 2007414	



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

Contact Name:
Tampa Electric

Distribution Services
Transformers 2000 Sq Ft

District: CSA

WR No. 924920

Date Sched: 4/1/21

Date Required: 4/1/21

Additional Information: URD filing for 1501-2500 sq ft low density

WR Description: LDUG 2000 sq ft TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$79,554.38	\$0.00	\$79,554.38
OVERHEAD:	\$11,002.38	\$0.00	\$11,002.38
	\$90,556.76	\$0.00	\$90,556.76
LABOR HOURS:	152.8	0	152.8
LABOR COST:	\$6,726.81	\$0.00	\$6,726.81
OVERHEAD:	\$8,913.02	\$0.00	\$8,913.02
	\$15,639.83	\$0.00	\$15,639.83
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$106,196.59	\$0.00	\$106,196.59
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$106,196.59	\$0.00	\$106,196.59

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 924920

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
2	2003816 ARRESTER, UD, 10KV PARKING L/A, 8.40 KVR	\$144.06	\$288.12	Y
2	2003815 ARRESTER, URD, 10KV ELBOW L/A, 8.40 KVRM	\$63.66	\$127.32	Y
4	2003817 ARRESTER, URD, 10KV, BUSHING L/A, 8.40KV	\$192.51	\$770.04	Y
30	2077906 CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$54.00	N
60	2078000 CLAMP,GND,TRANSFORMER,#10 SOL-#1 STR CU	\$2.31	\$138.60	N
4	2077931 CONNECTOR, VICE CU #2 STR	\$2.38	\$9.52	N
90	2077939 COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$430.20	N
30	2001315 PAD, CONCRETE 40" X 45" X 4" 25- 50KVA T	\$103.25	\$3,097.50	N
0	2001316 PAD, CONCRETE 44" X 52" X 4" 75-250KVA T	\$115.55	\$0.00	N
30	2007395 PADLOCK, RED BRASS BODY 1/4" BRASS SHACK	\$22.97	\$689.10	N
30	2007489 REPELLENT, FIRE ANT GRANULE 4 OZ BIFENTH	\$2.77	\$83.10	N
120	2077980 ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$1,646.40	N
60	2004031 STUD, GALVANIZED, 11 THREAD PER INCH ALL	\$2.47	\$148.20	N
90	2004904 TERMINAL, SLIP FIT AL 5/8 IN 8-POS #2-50	\$17.94	\$1,614.60	N
0	2004948 TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 6	\$7.54	\$0.00	N
0	2004954 TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 6	\$16.58	\$0.00	N
0	2004950 TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 8	\$8.28	\$0.00	N
6	2001518 TX,PM,LP,1P,25 kVA,240/120,FR3,SS	\$2,001.00	\$12,006.00	Y
8	2001519 TX,PM,LP,1P,37.5 kVA,240/120,FR3,SS	\$2,108.00	\$16,864.00	Y
16	2001520 TX,PM,LP,1P,50 kVA,240/120,FR3,SS	\$2,592.00	\$41,472.00	Y
0	2001521 TX,PM,LP,1P,75 kVA,240/120,FR3,SS	\$3,044.00	\$0.00	Y
180	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$113.40	N
6	2078011 WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$2.28	N
		Total	\$79,554.38	



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 924957

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
Term Poles - low density 2000 sq ft

Additional Information: Low density URD filing - 2000 sq ft homes

WR Description: LDUG 2000 sq ft TAKEOFFS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$1,439.19	\$0.00	\$1,439.19
OVERHEAD:	\$199.05	\$0.00	\$199.05
	\$1,638.24	\$0.00	\$1,638.24
LABOR HOURS:	22.62	0	22.62
LABOR COST:	\$995.03	\$0.00	\$995.03
OVERHEAD:	\$1,318.42	\$0.00	\$1,318.42
	\$2,313.45	\$0.00	\$2,313.45
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$3,951.69	\$0.00	\$3,951.69
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$3,951.69	\$0.00	\$3,951.69

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 924957

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
4	2003651 ARRESTER, LIGHTNING DISTRIBUTION CLASS 8	\$41.28	\$165.12	Y
4	2077754 BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$4.16	N
4	2131366 BRACKET, FG, 1 PH, 1 POS, 18"	\$30.03	\$120.12	N
4	2077906 CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$7.20	N
4	2077911 CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$22.92	N
160	2078012 CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$134.40	N
12	2004187 CONDUCTOR,BARE,#2 CU,7-STR,SOFT-DRAWN	\$0.98	\$11.76	N
4	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$2.64	N
8	2077930 CONNECTOR, VICE CU #4 STR	\$1.91	\$15.28	N
15	2077939 COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$71.70	N
4	2003846 CUTOFF, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$282.96	Y
4	2077793 FUSE LINK, 80A UNVRS 100A CUTOFF 23" OA	\$6.67	\$26.68	N
4	2077822 KIT, ATTACHMENT, FOR ATTACHING "FLYING"	\$63.00	\$252.00	N
8	2077965 MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$13.92	N
16	2077980 ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$219.52	N
4	2077789 SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$1.08	N
40	2077997 STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$10.80	N
4	2077828 STIRRUP, AL BODY & CU BAIL 1/0-397	\$17.19	\$68.76	N
4	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$0.96	N
4	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$2.65	N
12	2078011 WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$4.56	N
		Total	\$1,439.19	



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 925017

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
Primary conduit 2000 Sq Ft

Additional Information: Low density 2000 sq ft URD filing
WR Description: LDUG 2000 sq ft PRIMARY CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$22,475.04	\$0.00	\$22,475.04
OVERHEAD:	\$3,108.30	\$0.00	\$3,108.30
	\$25,583.34	\$0.00	\$25,583.34
LABOR HOURS:	223.84	0	223.84
LABOR COST:	\$9,853.36	\$0.00	\$9,853.36
OVERHEAD:	\$13,055.70	\$0.00	\$13,055.70
	\$22,909.06	\$0.00	\$22,909.06
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$48,492.40	\$0.00	\$48,492.40
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$48,492.40	\$0.00	\$48,492.40

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925017

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
33	2007227 CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$205.26	N
40	2004389 CONDUIT, GALVANIZED 2 IN 10 FT WITH COUP	\$6.78	\$271.20	Y
16156	2004488 CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$16,640.68	Y
178	2004507 COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$106.80	N
88	2004395 ELBOW, 2" 90 DEGREE ,GALVANIZED, 24" MIN	\$34.29	\$3,017.52	N
1	2004394 ELBOW, GALV 2 INCH 45 DEG THD 15" RADIUS	\$26.25	\$26.25	N
3	2004719 HANDHOLE, SPLICING SINGLE PHASE PRIMARY	\$554.21	\$1,662.63	Y
18157	2007414 TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$544.70	N
	Total		\$22,475.04	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925022

Date Sched: 4/1/21

Date Required: 4/21/21

Contact Name:

Distribution Services
Primary cable - 2000 Sq Ft

Additional Information: URD Low Density 2000 PSC filing
WR Description: LDUG 2000 sq ft PRIMARY CABLE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$40,010.51	\$0.00	\$40,010.51
OVERHEAD:	\$5,533.47	\$0.00	\$5,533.47
	\$45,543.98	\$0.00	\$45,543.98
LABOR HOURS:	249.02	0	249.02
LABOR COST:	\$10,961.75	\$0.00	\$10,961.75
OVERHEAD:	\$14,524.30	\$0.00	\$14,524.30
	\$25,486.05	\$0.00	\$25,486.05
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$71,030.03	\$0.00	\$71,030.03
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$71,030.03	\$0.00	\$71,030.03

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925022

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
0	2004577 ANCHOR, LEAD EXPANSION, MEDIUM DUTY, SIZ	\$0.66	\$0.00	N
0	2003157 BOLT, 1/2" - 13 X 1-1/2" 18-8 SS HEX HEA	\$2.59	\$0.00	N
0	2003167 BOLT, MACHINE GALV HEX HEAD 5/8 X 1-1/4"	\$0.18	\$0.00	N
17554	2004343 CABLE, ALUMINUM, 15KV, 1/C, 1/0 AWG SOLI	\$2.08	\$33,192.64	Y
4	2004514 CAP, CONDUIT 2"	\$12.21	\$48.84	N
4	2004453 CAP, END CABLE 600 V CABLE RANGE .940 -	\$1.96	\$7.84	N
4	2003752 CLAMP, CONDUIT GROUND 1-1/4 IN - 2 IN CO	\$7.92	\$31.68	N
0	2077906 CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$0.00	N
80	2004488 CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$82.40	Y
8	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$5.28	N
0	2005009 CONNECTOR, LDBRK 8.3/14.4KV 200A 3POS	\$108.70	\$0.00	N
77	2077931 CONNECTOR, VICE CU #2 STR	\$2.38	\$183.26	N
0	2077939 COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$0.00	N
0	2004982 ENCLOSURE, 200A AL SWITCH MOD/1 PH DUMMY	\$1,122.04	\$0.00	Y
61	2004642 KIT, SEALING, CABLE ACCESSORY, 1/0 - 4/0	\$9.46	\$577.06	N
0	2001315 PAD, CONCRETE 40" X 45" X 4" 25- 50KVA T	\$103.25	\$0.00	N
0	2007394 PADLOCK, GREEN, TESS, BRASS BODY, WR2	\$21.24	\$0.00	N
0	2007489 REPELLENT, FIRE ANT GRANULE 4 OZ BIFENTH	\$2.77	\$0.00	N
0	2077980 ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$0.00	N
32	2004403 STRAP, GALV 2 IN 2 HOLE	\$0.28	\$8.96	N
61	2004883 TERMINATOR, LOADBREAK 200 AMP, 1/0 SOL	\$37.76	\$2,303.36	Y
4	2004634 TERMINATOR, POTHEAD, 1/0 TO 4/0, STEM	\$61.22	\$244.88	Y
0	2078005 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8	\$0.23	\$0.00	N
0	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$0.00	N
8	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$5.04	N
		Total	\$40,010.50	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925024

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
Sec Cable and Handholes 2000 sq ft

Additional Information: URD low density 2000 homes - PSC filing

WR Description: LDUG 2000 sq ft SECONDARY CABLE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$10,194.86	\$0.00	\$10,194.86
OVERHEAD:	\$1,409.95	\$0.00	\$1,409.95
	\$11,604.81	\$0.00	\$11,604.81
LABOR HOURS:	161.28	0	161.28
LABOR COST:	\$7,099.38	\$0.00	\$7,099.38
OVERHEAD:	\$9,406.70	\$0.00	\$9,406.70
	\$16,506.08	\$0.00	\$16,506.08
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$28,110.89	\$0.00	\$28,110.89
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$28,110.89	\$0.00	\$28,110.89

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925024

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
0 2004351	CABLE, CONVERSE, AL, UG, 600V, 2/C, 2/0,	\$1.01	\$0.00	Y
2605 2004354	CABLE, SWEETBRIAR, AL,UG,600V,2/C,4/0 AW	\$1.39	\$3,621.23	Y
0 2004356	CABLE, XHHW-2,AL,UG,600V,2/C,500 MCM, 37	\$4.33	\$0.00	Y
0 2005021	CONNECTOR, 600V URD, 4 POSITION, CONDUCT	\$16.25	\$0.00	N
0 2005022	CONNECTOR, 600V URD, 6 POSITION, CONDUCT	\$14.92	\$0.00	N
69 2005024	CONNECTOR, 600V URD, 6 POSITION, CONDUCT	\$23.41	\$1,615.29	N
0 2005025	CONNECTOR, 600V, URD, 8 POSITION, CONDUCT	\$30.35	\$0.00	N
0 2005020	CONNECTOR, URD 600 V 4 POSITION #10-350M	\$10.92	\$0.00	N
23 2000241	DECAL,WARNING,NOTICE,CLEARANCE,10" X 7"	\$3.56	\$81.88	N
23 2004714	HANDHOLE, ABOVE GRADE, LARGE DOME	\$186.22	\$4,283.06	N
23 2005212	MARKER, CURB LEXAN .040 THICK, ROUND 2.5	\$2.83	\$65.09	N
23 2007395	PADLOCK, RED BRASS BODY 1/4" BRASS SHACK	\$22.97	\$528.31	N
Total			\$10,194.86	



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 925026

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
Secondary conduit-2000 sq ft

Additional Information: URD low density 2000 sq ft PSC filing
WR Description: LDUG 2000 sq ft SECONDARY CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$6,602.28	\$0.00	\$6,602.28
OVERHEAD:	\$913.09	\$0.00	\$913.09
	\$7,515.37	\$0.00	\$7,515.37
LABOR HOURS:	63.08	0	63.08
LABOR COST:	\$2,776.65	\$0.00	\$2,776.65
OVERHEAD:	\$3,679.04	\$0.00	\$3,679.04
	\$6,455.69	\$0.00	\$6,455.69
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$13,971.06	\$0.00	\$13,971.06
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$13,971.06	\$0.00	\$13,971.06

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925026

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Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
1	2007227 CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$6.22	N
8	2007228 CEMENT, PVC GRAY MEDIUM DRY QUART W/DAUB	\$7.27	\$58.16	N
0	2004488 CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$0.00	Y
340	2004517 CONDUIT, PVC P & C 3 IN 20 FT	\$1.70	\$578.00	Y
1871	2004529 CONDUIT, PVC, 4" X 20', DB-60-TC-6	\$2.78	\$5,201.38	Y
0	2004507 COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$0.00	N
8	2004521 COUPLING, PVC 3 IN SCH 40 TEMS 13.01	\$2.95	\$23.60	N
84	2004535 COUPLING, PVC 4 IN SCH 40 TEMS 13.01	\$4.28	\$359.52	N
0	2004511 ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9-	\$1.26	\$0.00	N
0	2004427 ELBOW, GALV 4 IN 45 DEG THD 16 IN RAD	\$45.37	\$0.00	N
0	2004510 ELBOW, PVC 2 IN 45 DEG 9-1/2 IN RAD SCH	\$0.94	\$0.00	N
0	2004523 ELBOW, PVC 3 IN 45 DEG 13 IN RAD SCH 40	\$3.62	\$0.00	N
4	2004524 ELBOW, PVC 3 IN 90 DEG 13 IN RAD SCH 40	\$4.52	\$18.08	N
42	2004538 ELBOW, PVC 4", 90 DEG., 16" RADIUS, SCHE	\$6.68	\$280.56	N
2559	2007414 TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$76.76	N
		Total	\$6,602.28	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925028

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
Service Cable-2000 sq ft

Additional Information: Low density URD filing 2000 sq ft
WR Description: LDUG 2000 sq ft SERVICE CABLE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$23,370.30	\$0.00	\$23,370.30
OVERHEAD:	\$3,232.12	\$0.00	\$3,232.12
	\$26,602.42	\$0.00	\$26,602.42
LABOR HOURS:	1.94	0	1.94
LABOR COST:	\$85.46	\$0.00	\$85.46
OVERHEAD:	\$113.22	\$0.00	\$113.22
	\$198.68	\$0.00	\$198.68
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$26,801.10	\$0.00	\$26,801.10
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$26,801.10	\$0.00	\$26,801.10

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925028

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Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
17795 2004351	CABLE, CONVERSE, AL, UG, 600V, 2/C, 2/0,	\$1.01	\$16,338.77	Y
3883 2004354	CABLE, SWEETBRIAR, AL,UG,600V,2/C,4/0 AW	\$1.39	\$4,498.04	Y
Total			\$23,370.30	



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 925029

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
Meter Labor- 2000 sq ft

Additional Information: Low density URD filing 2000 sq ft homes

WR Description: LDUG 2000 sq ft METERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	42.07	0	42.07
LABOR COST:	\$1,851.92	\$0.00	\$1,851.92
OVERHEAD:	\$2,453.80	\$0.00	\$2,453.80
	\$4,305.72	\$0.00	\$4,305.72
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$4,305.72	\$0.00	\$4,305.72
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$4,305.72	\$0.00	\$4,305.72

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 925030

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
Service Conduit- 2000 sq ft

Additional Information: Low density URD filing for 2000 sq ft homes

WR Description: LDUG 2000 sq ft SERVICE CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$27,272.06	\$0.00	\$27,272.06
OVERHEAD:	\$3,771.72	\$0.00	\$3,771.72
	\$31,043.78	\$0.00	\$31,043.78
LABOR HOURS:	767.62	0	767.62
LABOR COST:	\$33,791.97	\$0.00	\$33,791.97
OVERHEAD:	\$44,774.34	\$0.00	\$44,774.34
	\$78,566.31	\$0.00	\$78,566.31
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$109,610.09	\$0.00	\$109,610.09
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$109,610.09	\$0.00	\$109,610.09

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925030

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?	
INSTALL					
23	2004492	ADAPTER,COND PVC FMLE 2" SCH 40 SOCXFPT	\$0.57	\$13.11	N
188	2004493	ADAPTOR, 2" PVC, FEMALE SLIP TO MALE THR	\$0.40	\$75.20	N
37	2007227	CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$230.14	N
23	2004409	COND,SRVC RISER,TYPE IIPVC,40,2.5"X7'	\$12.00	\$276.00	N
15237	2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$15,694.11	Y
2070	2004491	CONDUIT, PVC 2 IN 250 FT ROLL FLEXIBLE	\$1.13	\$2,339.10	N
23	2004518	CONDUIT, PVC 3 IN X 250 FT ROLL FLEXIBL	\$2.16	\$49.68	N
3121	2004517	CONDUIT, PVC P & C 3 IN 20 FT	\$1.70	\$5,305.70	Y
188	2004401	CONDUIT, SERVICE RISER, PVC, 2"	\$4.92	\$924.96	N
754	2004507	COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$452.40	N
138	2004521	COUPLING, PVC 3 IN SCH 40 TEMS 13.01	\$2.95	\$407.10	N
504	2004511	ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9-	\$1.26	\$635.04	N
0	2004510	ELBOW, PVC 2 IN 45 DEG 9-1/2 IN RAD SCH	\$0.94	\$0.00	N
0	2004523	ELBOW, PVC 3 IN 45 DEG 13 IN RAD SCH 40	\$3.62	\$0.00	N
69	2004524	ELBOW, PVC 3 IN 90 DEG 13 IN RAD SCH 40	\$4.52	\$311.88	N
188	2004396	NUT, LOCK GALV 2 IN	\$0.54	\$101.52	N
23	2004408	NUT, LOCK GALV 2-1/2 IN	\$1.06	\$24.38	N
14391	2007414	TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$431.74	N
Total			\$27,272.06		

**OH Construction Cost Data Summary
Low Density (210-Lot) OH Subdivision Costs**

Line #	A Work Type/WR #	B Description	C (C + M) Material and Handling	D Material	E (F + L) Total Labor Plus Vehicles	F (G + H + I) Total Labor	G Base Labor	H (G x J x TLF) TEC Labor Overheads	I (G x K x CLF) Contract Labor Overheads	J TEC Work %	K Contractor Work %	L Vehicle	M (D x MHR) Material Handling	N (C+E) Total
1	Transformers													
2	925037	Install & Ground Transformers	49,232.37	\$43,871.30	18,530.21	16,572.33	9,649.44	6,148.62	774.27	60%	40%	\$1,957.87	5,361.07	67,762.58
3														
4	Primary													
5	925038	Install Primary Line includes Grounding Primary Takeoffs	3,780.00	\$3,368.38	9,895.97	8,850.38	5,153.24	3,283.64	413.50	60%	40%	\$1,045.59	411.62	13,675.97
6														
7	Poles													
8	925039	Install Poles and Guy Stubs Includes Haul Poles Out	35,516.15	\$31,648.68	58,469.09	52,291.34	30,447.26	19,400.99	2,443.09	60%	40%	\$6,177.75	3,867.47	93,985.24
9														
10	Secondary													
11	925040	Install Secondary Cable	28,563.08	\$25,452.75	33,643.82	30,089.07	17,519.72	11,163.57	1,405.78	60%	40%	\$3,554.75	3,110.33	62,206.90
12														
13	Services													
14	926547	Install Service Cable & Meters	31,785.04	\$28,323.86	16,788.28	15,014.46	8,742.35	5,570.63	701.49	60%	40%	\$1,773.82	3,461.18	48,573.32
15														
16														
17	Engineering	Design/Inspection/Coordination	-	-	13,788.39	13,788.39	-	-	-	100%	0%	-	-	13,788.39
18														
19	Tree Trim		-	-	-	-	-	-	-			-	-	-
20														
21	Totals (Sum of lines 2, 5, 8, 11, 14, 17, and 19)		\$ 148,876.63	\$ 132,664.97	\$ 151,115.76	\$ 136,605.98	\$ 71,512.01	\$ 45,567.45	\$ 5,738.12			\$ 14,509.79	\$ 16,211.66	\$ 299,992.39
22	Cost per Lot (line 21 / 210 lots)		\$ 708.94		\$ 719.60									\$ 1,428.54

Adjustment Factors	
TEC Operations Labor Overhead Factor	TLF = 1.062
Contractor Labor Overhead Factor	CLF = 0.2006
Current year material handling charge rate	MHR = 0.1222

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Low Density - 210 Lots - Overhead Material List

This worksheet lists the totals for major materials to be listed on the associated work request print as requested by the PSC.

1225.0 Total Connected KVA
1258.9 Total peak demand KVA
0 25 kVA Transformers
4 37.5 kVA Transformers
17 50 kVA Transformers
3 75 kVA Transformers
10130 #2AAAC Primary
65 Primary Poles
0 2/0 AWG Triplex Secondary
8000 4/0 AWG Triplex Secondary
2135 #2AAAC Secondary Neutral
1515 2-2/0 & 1-1/0 AL Triplex Service Drop (considered secondary)
545 2-4/0 & 1-2/0 AL Triplex Service Drop (considered secondary)
35 Secondary Poles
9360 2-2/0 & 1-1/0 AL Triplex Service Drop
0 2-4/0 & 1-2/0 AL Triplex Service Drop

Summary of assemblies (CU's) for Low Density 2000 sq ft Overhead Design - March 2021

Work Request #1	925037 - Transformers (enter these Construction Units into WorkPro)							
Assemblies ==>>>	25 KVA	37.5 KVA	50 KVA	75 KVA	Stirrup	Spacer	Grounding	
	PKT11W3F	PKT11W4F	PKT11W5F	PKT11W6F	ALSTRP1/0	SEWC	GRDMEG1/2	
Total Quantities ==>	0	4	17	3	24	24	24	

Work Request #2	925038 - Primary							
Assemblies ==>>>	#2 AAAC	1st span	Add'l	Fused cutout	Deadend & tap	2 way lateral	Fuse	Grounding
	WIOPA	WIO1F	WIO1A	PKP102WB3A	PKP101WA3A	PKP105WA4A	FLOH103	GRDMEG1/2
Total Quantities ==>	10130	19	43	2	7	2	2	5

Work Request #3	925039 - Poles and Guys												
Should be ==>>>>	Pole haul	1ø tangent	1ø tangent	1ø Deadend	1ø angle <20	1ø angle <20	1ø angle >20	1ø angle >20	3 ø	Down guys	Pole hardware	Guy wire	Down guys
Assemblies ==>>>>	POLE_HAUL	STP101_TAN_40C2	STP101_TAN_45C2	STP401_DE_40C2	STP101_ANG_40C2	STP101_ANG_45C2	STP301_RC_40C2	STP301_RC_45C2	STP104_TAN_45C2	PKG12W2H	PKG31W1H	GUYSTR3/8	PKG11W1H
Total Quantities ==>	65	12	1	11	20	1	17	1	2	56	2	70	0

Work Request #4	925040 - Secondary - From Secondary&Neutral worksheet										
Assemblies ==>>>	2Ø	4Ø	#2 Neutral	1st span	Add'l	1st span	Add'l	Eyebolt	Eyemit	DE+Bolt	CABLEOPEN
	WIO3SB	WIO3SC	WIOPA	WIO1F	WIO1A	WIOCF	WIOCA	SEW1DEN	SEG1DEN	PKS11W	
Total Quantities ==>	0	8000	2135	9	2	33	20	4	12	30	12

More of Work Request #4	925040 - Secondary continued - From Secondary&Neutral worksheet and SlackSecondary (service cable) & Secondary Poles worksheet										
Assemblies ==>>>	Pole hardware	Guy wire	POLE_HAUL	35' Class 4	35' Class 6	30' Class 6	Down guy				
	PKG31W1H	GUYSTR3/8		STS11C	STS11B	STS11A	PKG11W1H	PKS21G	CA2/0TPX	CA4/0TPX	SVLABOR
Total Quantities ==>	16	1390	35	35	0	0	0	34	1515	545	34

Work Request #5	926547 - Services			
Assemblies ==>>>	CA2/0TPX	CA4/0TPX	SVLABOR	METERLABOR
Total Quantities ==>	9360	0	0	210

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Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 925037

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
LDOH 2000 sq ft Transformers

Additional Information: Used for Low Density 2000 sq ft 3.5 ton ac

WR Description: LDOH 2000 sq ft TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$43,871.30	\$0.00	\$43,871.30
OVERHEAD:	\$6,067.39	\$0.00	\$6,067.39
	\$49,938.69	\$0.00	\$49,938.69
LABOR HOURS:	219.24	0	219.24
LABOR COST:	\$9,649.44	\$0.00	\$9,649.44
OVERHEAD:	\$12,785.56	\$0.00	\$12,785.56
	\$22,435.00	\$0.00	\$22,435.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$72,373.69	\$0.00	\$72,373.69
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$72,373.69	\$0.00	\$72,373.69

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925037

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?	
INSTALL					
24	2003646	ARRESTER, DISTRIBUTION, 10KV, 8.4KV MCOV	\$39.68	\$952.32	Y
24	2077754	BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$24.96	N
48	2077755	BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$55.68	N
24	2003690	BRACKET, CUTOUT, ARRESTER & POTHEAD DWG	\$7.22	\$173.28	N
24	2004660	BRACKET,"L" 5-5/8"IN LENGTH FOR MTG CUTO	\$10.41	\$249.84	N
312	2004197	CABLE, HANDCOIL, COPPER, 600V, 2/0 AWG,	\$2.32	\$723.84	N
36	2004199	CABLE, HANDCOIL, COPPER, 600V, 4/0 AWG,	\$3.75	\$135.00	N
24	2077906	CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$43.20	N
24	2077911	CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$137.52	N
48	2078000	CLAMP,GND,TRANSFORMER,#10 SOL-#1 STR CU	\$2.31	\$110.88	N
960	2078012	CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$806.40	N
6	2003528	CONNECTOR, 2-BOLT AL MAIN 336-500MCM TAP	\$25.78	\$154.68	N
63	2077839	CONNECTOR, COMPRESSION H-BLOCK ACSR 1/0-	\$0.53	\$33.39	N
24	2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$15.84	N
3	2077845	CONNECTOR, COMPRESSION H-BLOCK ACSR 4/0	\$0.68	\$2.04	N
96	2077930	CONNECTOR, VICE CU #4 STR	\$1.91	\$183.36	N
72	2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$344.16	N
42	2003516	COVER, SNAP-ON SQUEEZON CONNECTOR D DIE	\$0.39	\$16.38	N
24	2003846	CUTOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$1,697.76	Y
17	2077806	FUSE LINK, 10A UNVRSL 100A CUTOUT 23" OA	\$3.91	\$66.47	N
3	2077807	FUSE LINK, 15A UNVRSL 100A CUTOUT 23" OA	\$3.93	\$11.79	N
4	2077805	FUSE LINK, 7A UNVRSL 100A CUTOUT 23" OAL	\$3.89	\$15.56	N
48	2077965	MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$83.52	N
24	2007368	PROTECTOR, WILD LIFE, SLIP-ON TYPE	\$5.35	\$128.40	N
96	2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$1,317.12	N
24	2077767	ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$63.60	N
24	2077789	SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$6.48	N
24	2077812	SPACER, CABLED SECONDARY	\$6.79	\$162.96	N
240	2077997	STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$64.80	N
24	2077826	STIRRUP, AL BODY & CU BAIL 2-4/0	\$10.18	\$244.32	N
4	2001368	TX,OH,37.5 kVA,7.62/13.2Y,120/240,FR3	\$1,253.83	\$5,015.32	Y
17	2001369	TX,OH,50 kVA,7.62/13.2Y,120/240,FR3	\$1,463.60	\$24,881.20	Y
3	2001370	TX,OH,75 kVA,7.62/13.2Y,120/240,FR3	\$1,924.56	\$5,773.68	Y
120	2078006	WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$28.80	N
72	2078014	WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$7.92	N
76	2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$47.63	N
240	2078011	WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$91.20	N
Total			\$43,871.30		



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 925038

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
LDOH 2000 sq ft Primary

Additional Information: Used for 2000 square foot design

WR Description: LDOH 2000 sq ft PRIMARY

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$3,368.38	\$0.00	\$3,368.38
OVERHEAD:	\$465.86	\$0.00	\$465.86
	\$3,834.24	\$0.00	\$3,834.24
LABOR HOURS:	117.08	0	117.08
LABOR COST:	\$5,153.24	\$0.00	\$5,153.24
OVERHEAD:	\$6,828.03	\$0.00	\$6,828.03
	\$11,981.27	\$0.00	\$11,981.27
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$15,815.51	\$0.00	\$15,815.51
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$15,815.51	\$0.00	\$15,815.51

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925038

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
5	2003646 ARRESTER, DISTRIBUTION, 10KV, 8.4KV MCOV	\$39.68	\$198.40	Y
9	2077739 BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$28.08	N
7	2077754 BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$7.28	N
2	2077780 BOLT, SPOOL, 5/8" X 10", GALV. SINGLE UP	\$4.16	\$8.32	N
5	2003681 BRACKET, "L", LIGHTNING ARRESTER 10 KV	\$7.95	\$39.75	N
2	2003685 BRACKET, FIBERGLASS STANDOFF VERTICAL 16"	\$25.98	\$51.96	N
2	2004660 BRACKET,"L" 5-5/8"IN LENGTH FOR MTG CUTO	\$10.41	\$20.82	N
18	2077818 CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$164.16	N
5	2077906 CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$9.00	N
16	2077911 CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$91.68	N
10637	2004331 CONDUCTOR, BARE OVERHEAD, 2 AWG, AAAC, 7	\$0.15	\$1,595.48	Y
200	2078012 CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$168.00	N
22	2077838 CONNECTOR, COMPRESSION H-BLOCK ACSR #2-1	\$0.41	\$9.02	N
16	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$10.56	N
10	2077930 CONNECTOR, VICE CU #4 STR	\$1.91	\$19.10	N
15	2077939 COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$71.70	N
2	2003846 CUTOFF, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$141.48	Y
4	2077765 DOUBLE-ARMING, GALVANIZED 5/8 "X 12"	\$2.35	\$9.40	N
2	2077794 FUSE LINK, 103A UNVRSL 100A CUTOFF 23" O	\$24.29	\$48.58	N
2	2077954 INSULATOR, PIN TYPE, 10KV, ANSI CLASS 55	\$3.75	\$7.50	N
2	2077952 INSULATOR, SPOOL, ANSI CLASS 53-3, TRANS	\$1.21	\$2.42	N
9	2077959 INSULATOR, SUSPENSION, POLYMER, 25KV, AP	\$11.86	\$106.74	N
10	2077965 MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$17.40	N
9	2077783 NUT, EYE, STANDARD, 1-1/2" GALVANIZED FO	\$1.51	\$13.59	N
20	2077980 ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$274.40	N
7	2077789 SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$1.89	N
50	2077997 STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$13.50	N
2	2077828 STIRRUP, AL BODY & CU BAIL 1/0-397	\$17.19	\$34.38	N
14	2077826 STIRRUP, AL BODY & CU BAIL 2-4/0	\$10.18	\$142.52	N
2	2003613 TIE, TOP, FORMED WIRE #2 ACSR OR #2 AAAC	\$2.87	\$5.74	N
22	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$5.28	N
4	2078014 WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$0.44	N
67	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$42.21	N
20	2078011 WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$7.60	N
		Total	\$3,368.37	



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 925039

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
LDOH 2000 sq ft - POLES

Additional Information: Used for 2000 square foot design

WR Description: LDOH 2000 sq ft POLES

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$31,648.68	\$0.00	\$31,648.68
OVERHEAD:	\$4,377.02	\$0.00	\$4,377.02
	\$36,025.70	\$0.00	\$36,025.70
LABOR HOURS:	691.7	0	691.7
LABOR COST:	\$30,447.26	\$0.00	\$30,447.26
OVERHEAD:	\$40,342.60	\$0.00	\$40,342.60
	\$70,789.86	\$0.00	\$70,789.86
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$106,815.56	\$0.00	\$106,815.56
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$106,815.56	\$0.00	\$106,815.56

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925039

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
56	2003632 ANCHOR,SCRW GALV 10" WING 1-1/4" ROD 8"	\$48.15	\$2,696.40	N
37	2077739 BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$115.44	N
114	2077764 BOLT, MACHINE 3/4" X 12", GALV	\$2.41	\$274.74	N
68	2077754 BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$70.72	N
40	2077753 BOLT, MACHINE 5/8" X 8", GALV.	\$1.05	\$42.00	N
2	2077780 BOLT, SPOOL, 5/8" X 10", GALV. SINGLE UP	\$4.16	\$8.32	N
44	2077755 BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$51.04	N
4	2003686 BRACKET, FIBERGLASS STANDOFF VERTICAL24"	\$48.88	\$195.52	N
18	2077818 CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$164.16	N
19	2003508 CLAMP, SUSPENSION AL ANGLE RANGE .50 TO	\$13.95	\$265.05	N
40	2077924 CLEVIS, STEEL LESS INSULATOR 5/8 IN PIN	\$9.38	\$375.20	N
315	2078012 CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$264.60	N
60	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$39.60	N
63	2077930 CONNECTOR, VICE CU #4 STR	\$1.91	\$120.33	N
4	2077765 DOUBLE-ARMING, GALVANIZED 5/8 "X 12"	\$2.35	\$9.40	N
56	2003636 EXTENSION ROD, ANCHOR 1-1/4 X 72 6 FT	\$50.54	\$2,830.24	N
36	2077901 FIBERGLASS RIDGE-PIN	\$28.87	\$1,039.32	N
226	2077949 GRIP,GUY,FORMED WIRE DEADEND,3/8"EHS	\$2.27	\$513.02	N
37	2077862 GUARD, LINE #2 ACSR & AAAC STR 6/1, 7	\$1.95	\$72.15	N
114	2077951 HOOK, GUY	\$2.73	\$311.22	N
40	2077954 INSULATOR, PIN TYPE, 10KV, ANSI CLASS 55	\$3.75	\$150.00	N
2	2077952 INSULATOR, SPOOL, ANSI CLASS 53-3, TRANS	\$1.21	\$2.42	N
58	2077961 INSULATOR, STRAIN FIBERGLASS 36 IN 15,00	\$14.73	\$854.34	N
37	2077959 INSULATOR, SUSPENSION, POLYMER, 25KV, AP	\$11.86	\$438.82	N
56	2077979 MARKER, GUY WIRE PLASTIC 8' IN LENGTH CO	\$4.43	\$248.08	N
60	2002857 POLE, WOOD, 40FT CLASS 2, CCA TREATED	\$272.68	\$16,360.80	Y
5	2002858 POLE, WOOD, 45 FT CLASS 2, CCA TREATED.	\$323.31	\$1,616.55	Y
31	2077767 ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$82.15	N
114	2077790 SCREW, LAG 1/2" X 4", GALV., TWIST DRIVE	\$0.47	\$53.58	N
71	2077812 SPACER, CABLED SECONDARY	\$6.79	\$482.09	N
21	2003612 TIE, PREFORMED SIDE TIE #2 ACSR OR #2 A	\$2.64	\$55.44	N
19	2003613 TIE, TOP, FORMED WIRE #2 ACSR OR #2 AAAC	\$2.87	\$54.53	N
114	2078002 WASHER, CURVED, MALLEABLE, 3" X 3"	\$1.22	\$139.08	N
221	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$53.04	N
217	2078014 WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$23.87	N
4774	2005879 WIRE,GUY,EHS STEEL,GALV,3/8",15.4K RBS	\$0.33	\$1,575.42	N
	Total		\$31,648.68	



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 925040

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
LDOH 2000 sq ft Secondary

Additional Information: Used for 2000 sq ft 3.5 TON AC design

WR Description: LDOH 2000 sq ft SECONDARY

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$25,452.75	\$0.00	\$25,452.75
OVERHEAD:	\$3,520.12	\$0.00	\$3,520.12
	\$28,972.87	\$0.00	\$28,972.87
LABOR HOURS:	397.97	0	397.97
LABOR COST:	\$17,519.72	\$0.00	\$17,519.72
OVERHEAD:	\$23,213.62	\$0.00	\$23,213.62
	\$40,733.34	\$0.00	\$40,733.34
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$69,706.21	\$0.00	\$69,706.21
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$69,706.21	\$0.00	\$69,706.21

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
Dist: CSA

WR No. 925040

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
8	2003632 ANCHOR,SCRW GALV 10" WING 1-1/4" ROD 8"	\$48.15	\$385.20	N
34	2077739 BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$106.08	N
24	2077764 BOLT, MACHINE 3/4" X 12", GALV	\$2.41	\$57.84	N
8	2077755 BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$9.28	N
8400	2004339 CABLE, OVERHEAD SECONDARY, TRIPLEX, 4/0	\$1.72	\$14,448.00	Y
1591	2004364 CABLE, SERVICE DROP AL 2-2/0 & 1-1/0 NEU	\$0.96	\$1,527.17	Y
627	2004366 CABLE, SERVICE DROP AL 2-4/0 & 1-2/0 NEU	\$1.42	\$890.06	Y
64	2077818 CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$583.68	N
2242	2004331 CONDUCTOR, BARE OVERHEAD, 2 AWG, AAAC, 7	\$0.15	\$336.27	Y
192	2077839 CONNECTOR, COMPRESSION H-BLOCK ACSR 1/0-	\$0.53	\$101.76	N
30	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$19.80	N
30	2077931 CONNECTOR, VICE CU #2 STR	\$2.38	\$71.40	N
128	2003516 COVER, SNAP-ON SQUEEZON CONNECTOR D DIE	\$0.39	\$49.92	N
8	2003636 EXTENSION ROD, ANCHOR 1-1/4 X 72 6 FT	\$50.54	\$404.32	N
32	2077949 GRIP,GUY,FORMED WIRE DEADEND,3/8"EHS	\$2.27	\$72.64	N
24	2077951 HOOK, GUY	\$2.73	\$65.52	N
16	2077961 INSULATOR, STRAIN FIBERGLASS 36 IN 15,00	\$14.73	\$235.68	N
8	2077979 MARKER, GUY WIRE PLASTIC 8' IN LENGTH CO	\$4.43	\$35.44	N
46	2077783 NUT, EYE, STANDARD, 1-1/2" GALVANIZED FO	\$1.51	\$69.46	N
0	2002836 POLE, WOOD 30 FT CLASS 6 CCA TREATED NO	\$82.69	\$0.00	Y
35	2002842 POLE, WOOD, 35 FT, CLASS 4, CCA TREATED.	\$141.93	\$4,967.55	Y
35	2077767 ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$92.75	N
24	2077790 SCREW, LAG 1/2" X 4", GALV., TWIST DRIVE	\$0.47	\$11.28	N
35	2077812 SPACER, CABLED SECONDARY	\$6.79	\$237.65	N
24	2078002 WASHER, CURVED, MALLEABLE, 3" X 3"	\$1.22	\$29.28	N
108	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$25.92	N
105	2078014 WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$11.55	N
60	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$37.80	N
1726	2005879 WIRE,GUY,EHS STEEL,GALV,3/8",15.4K RBS	\$0.33	\$569.58	N
	Total		\$25,452.75	



Estimate Summary
Design Number 1

Printed Date: 3/10/2021

District: CSA

WR No. 926547

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
LDOH 2000 sq ft SERVICE

Additional Information: Used for 2000 square foot design

WR Description: LDOH 2000 sq ft SERVICE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$9,449.06	\$0.00	\$9,449.06
OVERHEAD:	\$1,306.80	\$0.00	\$1,306.80
	\$10,755.86	\$0.00	\$10,755.86
LABOR HOURS:	198.6	0	198.6
LABOR COST:	\$8,742.35	\$0.00	\$8,742.35
OVERHEAD:	\$11,583.63	\$0.00	\$11,583.63
	\$20,325.98	\$0.00	\$20,325.98
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$31,081.84	\$0.00	\$31,081.84
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$31,081.84	\$0.00	\$31,081.84

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/10/2021
 Dist: CSA

WR No. 926547

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
9828 2004364	CABLE, SERVICE DROP AL 2-2/0 & 1-1/0 NEU	\$0.96	\$9,434.88	Y
0 2004366	CABLE, SERVICE DROP AL 2-4/0 & 1-2/0 NEU	\$1.42	\$0.00	Y
2 2003770	CLAMP, MID SPAN ALUMINUM 1/4 IN - 1/2 IN	\$7.09	\$14.18	N
Total			\$9,449.06	

4/2021

HIGH DENSITY MODEL
(176 lots)

Underground Costs (per lot)

ITEM	MATERIAL		LABOR		TOTAL		EXPLANATION OF % CHANGE
	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	
SERVICE	288.33	66.47%	260.66	46.99%	548.99	56.62%	Underground material up, contractor rates up
PRIMARY	138.27	29.97%	61.14	18.53%	199.41	26.23%	Underground material up, Cable labor re-evaluation caused labor increase
SECONDARY	78.14	99.59%	70.32	26.07%	148.46	56.39%	Underground material up, Cable labor re-evaluation caused labor increase
TRANSFORMERS	267.25	7.38%	68.77	11.21%	336.02	8.14%	Underground material up, TEC & Contractor overhead down
TRENCHING							
PRIMARY & SECONDARY			175.02	-11.71%	175.02	-11.71%	Contractor rates down
SERVICES			317.91	-7.46%	317.91	-7.46%	Contractor rates down
SUB-TOTAL	771.99	36.00%	953.82	7.38%	1,725.81	18.54%	
STORES HANDLING	94.34	18.89%			94.34	18.89%	Higher material costs produces higher handling costs
SUB-TOTAL	866.33	33.90%	953.82	7.38%	1,820.15	18.56%	
ENGINEERING			61.28	0.00%	61.28	0.00%	
TOTAL	866.33	33.90%	1,015.10	6.90%	1,881.43	17.84%	
					528.93	<i>Net Present Value of the Life Cycle Operational Cost Including Storm Restoration and Lost Pole Attachment Revenue</i>	
Total with NPV Factor					2,410.36	<i>Total Including NPV of Operational Cost</i>	

Overhead Costs (per lot)

ITEM	MATERIAL		LABOR		TOTAL		EXPLANATION OF % CHANGE
	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE	
SERVICE	142.24	70.76%	91.83	6.98%	234.07	38.39%	Material up, Labor up
PRIMARY	12.88	19.59%	35.17	17.70%	48.05	18.20%	Material up, Labor up
SECONDARY	64.40	10.81%	106.36	-1.55%	170.76	2.77%	Material up, Labor down
INITIAL TREE TRIM			0.00		0.00		
POLES	113.97	8.83%	205.55	10.04%	319.52	9.61%	Material up, Labor up
TRANSFORMERS	157.68	3.30%	70.27	11.95%	227.95	5.82%	Material up, Labor up
SUB-TOTAL	491.17	19.93%	509.18	7.58%	1,000.35	13.31%	
STORES HANDLING	60.02	4.82%			60.02	4.82%	Higher material costs produces higher handling costs
SUB-TOTAL	551.19	18.07%	509.18	7.58%	1,060.37	12.79%	
ENGINEERING			61.28	0.00%	61.28	0.00%	
TOTAL	551.19	18.07%	570.46	6.71%	1,121.65	12.01%	
					1,387.02	<i>Net Present Value of the Life Cycle Operational Cost Including Storm Restoration and Lost Pole Attachment Revenue</i>	
Total with NPV Factor					2,508.67	<i>Total Including NPV of Operational Cost</i>	

Differential Costs (per lot)

ITEM	MATERIAL		LABOR		TOTAL	
	COST	% CHANGE	COST	% CHANGE	COST	% CHANGE
<i>Differential (per lot)</i>	315.14	74.92%	444.64	7.15%	759.78	27.66%
<i>NPV amount</i>					-858.09	
<i>Differential' (per lot)</i>					-98.31	-85.66%

* Includes NPV of Operational Cost

Revised 3/23/21

UG Construction Cost Data Summary
High Density (176-Lot) UG Subdivision Costs

A	B	C	D	E	F	G	H	I	J	K	L	M	N
Line #	Work Type/WR #	(D+M) Material and Handling	Material	(F + L) Total Labor Plus Vehicles	(G + H + I) Total Labor	Base Labor	(G x J x TLF) Operations Labor Overheads	(G x K x CLF) Contract Labor Overheads	TEC Work %	Contractor Work %	Vehicle	(D x MHR) Material Handling	(C+E) Total
1	Transformers												
2	##### Install Transformer	51,230.95	\$45,652.25	5,902.34	5,278.71	\$3,073.59	1,958.49	246.62	60%	40%	\$623.63	5,578.70	57,133.29
3	##### Ground Transformer	1,553.57	\$1,384.40	2,747.51	2,457.21	\$1,430.74	911.67	114.80	60%	40%	\$290.30	169.17	4,301.08
4	Contr Prepare Pad Site	-	-	3,453.17	3,453.17	\$2,876.20	-	576.97	0%	100%	-	-	3,453.17
5		52,784.53	47,036.65	12,103.01	11,189.08	7,380.53	2,870.16	938.39			913.93	5,747.88	64,887.54
6	Primary												
7	925096 Primary Line - OH-UG Takeoffs	683.67	\$609.22	710.03	635.01	\$369.74	235.60	29.67	60%	40%	\$75.02	74.45	1,393.69
8	925097 Ground OH to UG Take-offs	155.36	\$138.44	317.36	283.82	\$165.26	105.30	13.26	60%	40%	\$33.53	16.92	472.71
9	925098 Primary Conduit (Material Only)	9,381.68	\$8,360.08	-	-	-	-	-			-	1,021.60	9,381.68
10	925100 Primary Cable	17,088.65	\$15,227.81	9,733.47	8,705.05	\$5,068.62	3,229.72	406.71	60%	40%	\$1,028.42	1,860.84	26,822.12
11		27,309.35	24,335.55	10,760.86	9,623.88	5,603.62	3,570.63	449.63			1,136.97	2,973.80	38,070.21
12	Secondary												
13	925103 Secondary Cable	9,649.74	\$8,598.95	12,377.13	11,069.38	\$6,445.28	4,106.93	517.17	60%	40%	\$1,307.75	1,050.79	22,026.87
14	925104 Secondary Conduit (Material Only)	5,783.11	\$5,153.37	-	-	-	-	-			-	629.74	5,783.11
15		15,432.85	13,752.32	12,377.13	11,069.38	6,445.28	4,106.93	517.17			1,307.75	1,680.53	27,809.98
16	Service												
17	925106 Service Cable	18,244.13	\$16,257.47	42,893.98	42,893.98	\$35,727.12	-	7,166.86	0%	100%	-	1,986.66	61,138.11
18	925108 Set Meters	17,751.95	\$15,818.88	2,981.50	2,666.48	\$1,552.59	989.31	124.58	60%	40%	\$315.02	1,933.07	20,733.45
19	925110 Service Conduit (Material Only)	20,950.73	\$18,669.34	-	-	-	-	-			-	2,281.39	20,950.73
20		56,946.81	50,745.69	45,875.48	45,560.46	37,279.71	989.31	7,291.44			315.02	6,201.12	102,822.29
21	Trenching												
22	Contract Primary Trenching	-	-	17,584.53	17,584.53	\$14,646.45	-	2,938.08	0%	100%	-	-	17,584.53
23	Contract Secondary Trenching	-	-	4,372.98	4,372.98	\$3,642.33	-	730.65	0%	100%	-	-	4,372.98
24	TEC Inspection for Primary	-	-	8,846.62	8,385.42	\$8,385.42	-	-	0%	0%	\$461.20	-	8,846.62
25		-	-	30,804.13	30,342.93	26,674.20	-	3,668.73			461.20	-	30,804.13
26													
27	Contract Svc Trenching Pri. Prop	-	-	33,344.02	33,344.02	\$27,772.80	-	5,571.22	0%	100%	-	-	33,344.02
28	Contract Svc Trenching Rts-of-Wy	-	-	14,437.70	14,437.70	\$12,025.40	-	2,412.30	0%	100%	-	-	14,437.70
29	TEC Inspection for Service	-	-	8,169.92	7,744.00	\$7,744.00	-	-	0%	0%	\$425.92	-	8,169.92
30		-	-	55,951.64	55,525.72	47,542.20	-	7,983.52			425.92	-	55,951.64
31													
32	Engineering Design/Inspection/Coordination	-	-	10,785.62	-	-	-	-			-	-	10,785.62
33													
34	Totals (Sum of lines 5, 11, 15, 20, 25, 30, and 32)	152,473.55	138,657.87	178,657.87	163,311.45	130,925.54	11,537.03	20,848.89			4,560.79	16,603.34	331,131.42
35	Cost "Per Lot" (Line 34/ 176 lots)	866.33	787.83	1,015.10	932.44	794.97	65.54	118.45			25.63	94.32	1,881.43

Adjustment Factors	
TEC Labor Overhead Factor (excludes engineering)	TLF = 1.062
Contractor Labor Overhead Factor	CLF = 0.2006
Current year material handling charge rate	MHR = 0.1222

175

TAMPA ELECTRIC COMPANY
DOCKET NO. 20210064-EI
STAFF'S THIRD DATA REQUEST
REQUEST NO. 3b

High Density - 176 lot - Contractor Labor - Underground Estimate

1. Update the contractor labor rates on this page. The numbers to be updated are highlighted in blue.
- 1a. Hover over the red comment symbol in the corner of the cell. That refers to the source of the information.
The contractor labor rates come from the E.D. Field Construction Department - the Conduit Coordinators - Mike Capparelli, Steve Furry, Jerry Manning, Bill Baxter.
2. Transfer the contractors costs to the HDdifferentialMonth-Year.xls file. The numbers are highlighted in yellow.
- 2a. Hover over the red comment symbol in the corner of the cell that refers to the destination of the contractor cost.
3. In 2006 TEC added pad site preparation cost, a contractor cost.

Prepare pad site (Primary Contractor Labor Costs)

	Total	Cost	Pad sites
Pad site preparation	\$2,876.20	\$143.81	20

Primary Trenching & Conduit (Primary Contractor Labor Costs)

	Total	Cost	Feet	
	\$11,762.40	\$2.08	5655	Trenching Cost
	\$2,884.05	\$0.51	5655	Conduit Installation - 2"
	\$0.00	\$0.00	5655	Pull-tape Installation (used exact length for labor cost not 5% extra)
Primary Trenching	\$14,646.45			

Secondary Trenching & Conduit (Primary Contractor Labor Costs)

	Total	Cost	Feet	
	\$2,706.08	\$2.08	1301	Trenching Cost
	\$0.00	\$0.51	0	Conduit Installation - 2"
	\$149.05	\$0.55	271	Conduit Installation - 3"
	\$787.20	\$0.64	1230	Conduit Installation - 4"
	\$0.00	\$0.00	1501	Pull-tape Installation (used exact length not 5% extra)
Secondary Trenching	\$3,642.33			

Service Trenching & Conduit (Primary Contractor Labor Costs)

	Total	Cost	Feet	
	\$7,829.12	\$2.08	3764	Trenching feet required for 2" service conduit
	\$0.00	\$2.08	0	Trenching feet required for 3" service conduit
	\$4,196.28	\$0.51	8228	Conduit Installation - 2"
	\$0.00	\$0.55	0	Conduit Installation - 3"
	\$0.00	\$0.00	8228	Pull-tape Installation (used exact length not 5% extra)
Svc Trenching Rts-of-Wy	\$12,025.40			

Service Trenching & Conduit on Private Property (Service Contractor Labor Costs)

	Total	Cost	Feet	
Svc Trenching Pri. Prop	\$27,772.80	\$5.26	5280	Trenching feet and conduit = 30ft x 176

Service Cable (Service Contractor Labor Costs)

	Total	Cost	Feet	
Service Cable Labor	\$35,727.12	\$2.34	15268	Installing 2/0 or 4/0 Cable in existing conduit
Service Labor	\$75,525.32			

Inspection (TECO Labor Cost)

TEC Labor	TEC Labor	TEC Vehicle	TEC Vehicle	
Total	Rate	Feet/Qty	Rate	Total
\$4,423.47	\$88.00	5655	\$4.84	\$243.29
\$1,017.67	\$88.00	1301	\$4.84	\$55.97
\$2,944.28	\$88.00	3764	\$4.84	\$161.94
Sub-total	\$8,385.42			\$461.20

Inspection costs for Primary Contractor (TECO Labor Cost)
Primary Inspection chg = (mach. trnch ft / 900 ft per day)*(8 hr/day)*Contractor rate
Secondary Inspection chg = (mach. trnch ft / 900 ft per day)*(8 hr/day)*Contractor rate
Service ROW Inspection chg = (machine trench ft / 900 ft per day)*(8 hr/day)*Contractor rate

TEC Labor	TEC Labor	TEC Vehicle	TEC Vehicle	
Total	Rate	Feet/Qty	Rate	Total
\$7,744.00	\$88.00	176	\$2.42	\$425.92
Sub-total	\$7,744.00			\$425.92

Inspection costs for Service Contractor (TECO Labor Cost)
Service Private Property Inspection = .5hr x # of lots x rate

High Density - 176 Lots - Underground Material List

This worksheet lists the totals for major materials to be listed on the associated work request print as requested by the PSC.

750 Total Connected KVA
804 Total peak demand KVA
 0 25 kVA Transformers
 20 37.5 kVA Transformers
 0 50 kVA Transformers
 0 75 kVA Transformers
5655 Trench Feet of 1/0 AL Primary Cable
 0 Existing trench feet of 1/0 AL Primary Cable
 0 Trench Feet of 2/0 AL Secondary Cable
 0 Existing trench feet of 2/0 AL Secondary Cable
1301 Trench Feet of 4/0 AL Secondary Cable
 200 Existing trench feet of 4/0 AL Secondary Cable
 Trench Feet of 500 MCM AL Secondary Cable
 0 Existing trench feet of 500 MCM AL Secondary Cable
9044 Trench Feet of 2/0 AL Service Cable
4464 Existing trench feet of 2/0 AL Service Cable
 0 Trench Feet of 4/0 AL Service Cable
 0 Existing trench feet of 4/0 AL Service Cable
 0 Load Break Cabinet

Notes:

1. 1250 SF Homes
2. 2.5 Ton AC Units
3. 40' Service run from property corner to meter location
4. Voltage drop less than or equal to 12.0 volts
5. Voltage flicker less than or equal to 12.0 volts

High Density - 176 Lots - Underground Material CU List

This worksheet summarizes the entries from the other worksheets (from PoleAveA through PoleOakHill) and provides the Contractor Labor worksheet with input totals to calculate contractor costs.

Station All Stations - This information is used to create Work Requests to obtain costs. Transfer the values from Qty and CU columns highlighted in yellow to the WorkPro Work Requests to obtain costs. Those costs are then entered into the HDdifferential.xls workbook to calculate the High Density Differential cost.

<=== Blue shading indicates fields to be updated.

Work Request

Number

925091

Transformer Material CUs

Qty	CU	Definition	Total Connected KVA	
0	pku51a3n	25 kva, 6 tap 250mcm	0	
0	pku51c3n	25 kva, 8 tap 250mcm	0	0
0	pku51a4n	37.5 kva, 6 tap 250mcm	0	0
0	pku51b4n	37.5 kva, 6 tap 500mcm	0	0
0	pku51c4n	37.5 kva, 8 tap 250mcm	0	0
20	pku51d4n	37.5 kva, 8 tap 500mcm	750	750
0	pku51a5n	50 kva, 6 tap 250mcm	0	750
0	pku51b5n	50 kva,6 tap 500mcm	0	750
0	pku51c5n	50 kva,8 tap 250mcm	0	750
0	pku51d5n	50 kva,8 tap 500mcm	0	750
0	pku51a6n	75 kva, 6 tap 250mcm	0	750
0	pku51b6n	75 kva, 6 tap 500mcm	0	750
0	pku51c6n	75 kva,8 tap 250mcm	0	750
0	pku51d6n	75 kva, 8 tap 500mcm	0	750
1	bushcover	Cover hot Tx bushing - at open position on loop tx, or at radial Tx		
1	bushdummy	Parking bushing at normal open tx in loop		

Work Request

Number

925095

Ground Pad Mounted Tx - Material CUs

Qty	CU	Definition
20	grdmeg1/2	meggar ground, drive rods, 1 location, 1/2" rods

Work Request

Number

925096

Primary Overhead - Material CUs

Qty	CU	Definition
2	PKE601WF1B	TEC material & labor to frame terminal pole CO & LA
2	FLOH103	Fuse

Work Request

Number

925097

Meggar Ground at Terminal Pole

Qty	CU	Definition
2	grdmeg1/2	meggar ground, drive rods, 1 location, 1/2" rods

Primary Trenching - Labor Only - Done By Contractors

Used to determine contractor labor cost on the Contractor Labor worksheet

Qty	CU	Definition
5655		Trenching feet required for 2" primary conduit
0		Existing trench feet used for 2" primary conduit
5655		Install Pulling Tape (blow in tape for pull - trench feet used to determine contractor cost)

Work Request

Number

925100

Primary Cable

Qty	CU	Definition	
2	pku16wf	pothead, 38' 1c 1/0AL cable, 20' pvc, ground conn, wood pole	76
40	pku11f	safebreak, 5' 1c 1/0AL cable, ground conn	200
0	pku31p3	switch cubicle(lbc) 1ph, 200a deadfront, 3 position w/pad, grnd	
0	pku31p4	switch cubicle(lbc) 1ph, 200a deadfront, 4 position w/pad, grnd	
0	fault1pa	fault indicator, 1ph 1/0-4/0 above grade, 400a	
5655	CA1/0CN1CAL	cable, 1/0AL concentric neutral 15kV includes labor - round up to	6524.1
0	wiu1f	labor to pull ug cable in conduit	

Work Request

Number

925098

Primary Conduit - Material Only

Material used by contractors to install the conduit system

Qty	CU	Definition
20	5512000	Conduit, galvanized 2", 10' with coupling, for up terminal pole
5875	5522000	2" conduit
6095	5853530	Pulling tape - actual length
48	5512220	2" elbow 90 galv 9.5" radius
8	5512210	2" elbow 45 galv 9.5" radius
112	5522180	Coupling, 2" PVC (2 per elbow)
12	gluecondf	2"&3" pvc 1 qt for 500' fast dry

Secondary Trenching - Labor Only - Done By Contractors

Used to determine contractor labor cost on the Contractor Labor worksheet

Qty	CU	Definition
0		Trenching feet required for 2" secondary conduit
0		Existing trench feet used for 2" secondary conduit
71		Trenching feet required for 3" secondary conduit
200		Existing trench feet used for 3" secondary conduit
1230		Trenching feet required for 4" secondary conduit
0		Existing trench feet used for 4" secondary conduit
1501		Install Pulling Tape (blow in tape for pull - trench feet used to determine contractor cost)

Work Request

Number

925103

Secondary Cable & Hand Holes

Qty	CU	Definition
0	wiu3sb	2c 2/0 1c 1 neutral, 600 v - added 5% here
1691	CA4/0INS3CA	2c 4/0 1c 2/0 neutral, 600v includes labor - added 5% here 2029.2
0	wiu3sn	2c 500 1c 350 neutral, 600v - added 5% here
0	insbus350/4	crab 4 position up to 350mcm
0	insbus350/6	crab 6 position up to 350mcm
0	insbus500/4	crab 4 position up to 500mcm
66	insbus500/6	crab 6 position up to 500mcm
0	insbus500/8	crab 8 position up to 500mcm
0	wiu1f	labor to pull ug cable in conduit
22	svhottx	energize ug secondary in transformer
22	svhothh	energize ug secondary in hand hole
0	hhsec	secondary h/h 12"x20", 3 or 4 2/0 or 4/0 svc w/ 2/0 or 4/0 sec
22	HH LARGE PE	secondary h/h 14"x18" large pedestal, 5 to 7 2/0 or 4/0 svc w/ 4/0 or 500 sec (any time 500 u

Work Request

Number

925104

Secondary Conduit - Material Only

Material used by contractors to install the conduit system

Qty	CU	Definition
0	5522000	2" conduit sched A bell end
291	5523000	3" conduit sched A bell end
1410	5524000	4" conduit sched A bell end
1901	5853530	Pulling tape, plus adding 5% extra here
0	5522220	2" elbow 90 PVC 9.5" radius
0	5522210	2" elbow 45 PVC 9.5" radius
8	5523220	3" elbow 90 PVC 13" radius
0	5523210	3" elbow 45 PVC 13" radius
36	5524220	4" elbow 90 PVC 16" radius
0	5514300	4" elbow 90 galv 30" radius
0	5514210	4" elbow 45 galv 16" radius
0	5522180	Coupling, 2" PVC (2 per elbow)
16	5523180	Coupling, 3" PVC (2 per elbow)
72	5524180	Coupling, 4" PVC (2 per elbow)
1	gluecondf	2"&3" pvc 1 qt for 500' fast dry
6	gluecondm	4"& 6" pvc 1 qt for 250' medium dry

Work Request

Number

925108

Set Meter

Qty	CU	Definition
176	meterlabor	
176	1900006	meter, kwh 30a 240v

Service Trenching - Labor Only - Done By Contractors

Used to determine contractor labor cost on the Contractor Labor worksheet

Qty	CU	Definition
176		Number of 2/0 services
5280		Trenching feet for 2" service conduit on private property-service contractor
1760		Trenching feet for 10' stub of 2" service conduit installed by primary contractor
2004		Trenching feet for 2" service conduit installed by primary contractor
4464		Existing trench feet used for 2" service conduit installed by primary contractor
8228		Install Pulling Tape for 2" conduit (blow in tape for pull - Primary Contractor)
0		Trenching feet for 3" service conduit on private property-service contractor
0		Trenching feet for 10' stub of 3" service conduit installed by primary contractor
0		Trenching feet for 3" service conduit installed by primary contractor
0		Existing trench feet used for 3" service conduit installed by primary contractor
0		Install Pulling Tape for 3" conduit (blow in tape for pull - Primary Contractor)

13508

Work Request

15268

Number

925106

Service Cable Material Only

Material used by contractors to install the conduit system

Qty	CU	Definition	
15268	wiu3sb	2c 2/0 & 1c 1 neutral, 600 v service cable	16031.4
0	wiu3sc	2c 4/0 & 1c 2/0 neutral, 600 v service cable	0

Work Request

15268

Number

925110

Service Conduit Material Only

Material used by contractors to install the conduit system

Qty	CU	Definition
5280		Conduit for 2" service on private property-service contractor
3520		Conduit for 10' stub of 2" service installed by primary contractor
6468		Conduit for 2" service installed by primary contractor
11748		Pulling Tape installed in 2" conduit by Primary Contractor)
15268	5522000	Total 2" conduit for work order quantity
448	5522220	2" elbow 90 PVC 9.5" radius
0	5522210	2" elbow 45 PVC 9.5" radius
176	5512260	2" galvanized Lock Nut
176	5522030	2" Flexible PVC conduit
176	5522050	2" PVC Adapter, male thread/female slip
176	5512370	2" PVC Service Riser
896	5522180	Coupling, 2" PVC (2 per elbow)
0		Conduit for 3" service on private property-service contractor
0		Conduit for 10' stub of 3" service installed by primary contractor
0		Conduit for 3" service installed by primary contractor
0		Pulling Tape installed in 3" conduit by Primary Contractor)
0	5523000	Total 3" conduit for work order quantity
0	5523220	3" elbow 90 PVC 13" radius
0	5523210	3" elbow 45 PVC 13" radius
0	5512770	2-1/2" house riser
0	5523220	3" elbow 90 PVC 13" radius at house riser
0	5512670	2-1/2" galvanized Lock Nut Used by contractors to install conduit system
0	5523030	3" Flexible PVC conduit
0	5521000	2-1/2"PVC Adapter, male thread/female slip
0	5523180	Coupling, 3" PVC (2 per elbow)
31	gluecondf	2"&3" pvc 1 qt for 500' fast dry
11748	5853530	Total Pulling Tape installed in conduit by Primary Contractor)



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925091

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:
Tampa Electric

Distribution Services
HDUG Transformers

Additional Information: Full PSC Filing 10/2010
WR Description: HDUG 1250 sq ft TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$45,652.25	\$0.00	\$45,652.25
OVERHEAD:	\$6,313.70	\$0.00	\$6,313.70
	\$51,965.95	\$0.00	\$51,965.95
LABOR HOURS:	69.84	0	69.84
LABOR COST:	\$3,073.59	\$0.00	\$3,073.59
OVERHEAD:	\$4,072.50	\$0.00	\$4,072.50
	\$7,146.09	\$0.00	\$7,146.09
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$59,112.04	\$0.00	\$59,112.04
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$59,112.04	\$0.00	\$59,112.04

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925091

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
1	2004816 BUSHING, PARKING, 15KV, INSULATED	\$38.70	\$38.70	N
20	2077906 CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$36.00	N
40	2078000 CLAMP,GND,TRANSFORMER,#10 SOL-#1 STR CU	\$2.31	\$92.40	N
2	2077931 CONNECTOR, VICE CU #2 STR	\$2.38	\$4.76	N
1	2004817 COVER, BUSHING 15 KV PDMT EQUIP W/FLEXIB	\$25.11	\$25.11	N
20	2001315 PAD, CONCRETE 40" X 45" X 4" 25- 50KVA T	\$103.25	\$2,065.00	N
20	2007395 PADLOCK, RED BRASS BODY 1/4" BRASS SHACK	\$22.97	\$459.40	N
20	2007489 REPELLENT, FIRE ANT GRANULE 4 OZ BIFENTH	\$2.77	\$55.40	N
40	2004031 STUD, GALVANIZED, 11 THREAD PER INCH ALL	\$2.47	\$98.80	N
9	2004948 TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 6	\$7.54	\$67.86	N
6	2004954 TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 6	\$16.58	\$99.48	N
45	2004950 TERMINAL, SLIP FIT ALUMINUM STUD TYPE, 8	\$8.28	\$372.60	N
20	2001519 TX,PM,LP,1P,37.5 kVA,240/120,FR3,SS	\$2,108.00	\$42,160.00	Y
120	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$75.60	N
3	2078011 WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$1.14	N
	Total		\$45,652.25	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925095

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
HDUG GRD Transformers

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft GROUND TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$1,384.40	\$0.00	\$1,384.40
OVERHEAD:	\$191.46	\$0.00	\$191.46
	\$1,575.86	\$0.00	\$1,575.86
LABOR HOURS:	32.5	0	32.5
LABOR COST:	\$1,430.74	\$0.00	\$1,430.74
OVERHEAD:	\$1,895.73	\$0.00	\$1,895.73
	\$3,326.47	\$0.00	\$3,326.47
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$4,902.33	\$0.00	\$4,902.33
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$4,902.33	\$0.00	\$4,902.33

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
 Dist: CSA

WR No. 925095

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
60 2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$286.80	N
80 2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$1,097.60	N
	Total		\$1,384.40	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925096

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
HDUG FRAME OH Takeoff

Additional Information: Full PSC Filing 10/2010
WR Description: HDUG 1250 sq ft TAKEOFFS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$609.22	\$0.00	\$609.22
OVERHEAD:	\$84.24	\$0.00	\$84.24
	\$693.46	\$0.00	\$693.46
LABOR HOURS:	8.4	0	8.4
LABOR COST:	\$369.74	\$0.00	\$369.74
OVERHEAD:	\$489.92	\$0.00	\$489.92
	\$859.66	\$0.00	\$859.66
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$1,553.12	\$0.00	\$1,553.12
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$1,553.12	\$0.00	\$1,553.12

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925096

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
2	2003651 ARRESTER, LIGHTNING DISTRIBUTION CLASS 8	\$41.28	\$82.56	Y
2	2077754 BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$2.08	N
2	2131366 BRACKET, FG, 1 PH, 1 POS, 18"	\$30.03	\$60.06	N
2	2077906 CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$3.60	N
2	2077911 CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$11.46	N
80	2078012 CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$67.20	N
6	2004187 CONDUCTOR,BARE,#2 CU,7-STR,SOFT-DRAWN	\$0.98	\$5.88	N
2	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$1.32	N
4	2077930 CONNECTOR, VICE CU #4 STR	\$1.91	\$7.64	N
0	2077939 COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$0.00	N
2	2003846 CUTOOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$141.48	Y
2	2077794 FUSE LINK, 103A UNVRSL 100A CUTOOUT 23" O	\$24.29	\$48.58	N
2	2077822 KIT, ATTACHMENT, FOR ATTACHING "FLYING"	\$63.00	\$126.00	N
4	2077965 MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$6.96	N
0	2077980 ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$0.00	N
2	2077789 SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$0.54	N
20	2077997 STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$5.40	N
2	2077828 STIRRUP, AL BODY & CU BAIL 1/0-397	\$17.19	\$34.38	N
2	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$0.48	N
2	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$1.32	N
6	2078011 WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$2.28	N
		Total	\$609.22	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925097

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Svcs
HDUG GRD takeoff POLE

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft GROUND TAKEOFFS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$138.44	\$0.00	\$138.44
OVERHEAD:	\$19.15	\$0.00	\$19.15
	\$157.59	\$0.00	\$157.59
LABOR HOURS:	3.75	0	3.75
LABOR COST:	\$165.26	\$0.00	\$165.26
OVERHEAD:	\$218.97	\$0.00	\$218.97
	\$384.23	\$0.00	\$384.23
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$541.82	\$0.00	\$541.82
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$541.82	\$0.00	\$541.82

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
 Dist: CSA

WR No. 925097

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
6 2077939	COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$28.68	N
8 2077980	ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$109.76	N
Total			\$138.44	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925098

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Engineering
HDUG Pri Conduit Material

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft PRIMARY CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$8,360.08	\$0.00	\$8,360.08
OVERHEAD:	\$1,156.20	\$0.00	\$1,156.20
	\$9,516.28	\$0.00	\$9,516.28
LABOR HOURS:	0	0	0
LABOR COST:	\$0.05	\$0.00	\$0.05
OVERHEAD:	\$0.07	\$0.00	\$0.07
	\$0.12	\$0.00	\$0.12
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$9,516.40	\$0.00	\$9,516.40
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$9,516.40	\$0.00	\$9,516.40

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
 Dist: CSA

WR No. 925098

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
12	2007227 CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$74.64	N
20	2004389 CONDUIT, GALVANIZED 2 IN 10 FT WITH COUP	\$6.78	\$135.60	Y
5935	2004488 CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$6,113.05	Y
108	2004507 COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$64.80	N
46	2004395 ELBOW, 2" 90 DEGREE ,GALVANIZED, 24" MIN	\$34.29	\$1,577.34	N
8	2004394 ELBOW, GALV 2 INCH 45 DEG THD 15" RADIUS	\$26.25	\$210.00	N
6155	2007414 TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$184.65	N
		Total	\$8,360.08	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925100

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Svcs
HDUG PRIMARY

Additional Information: Full PSC Filing 10/2010
WR Description: HDUG 1250 sq ft PRIMARY CABLE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$15,227.81	\$0.00	\$15,227.81
OVERHEAD:	\$2,106.01	\$0.00	\$2,106.01
	\$17,333.82	\$0.00	\$17,333.82
LABOR HOURS:	115.14	0	115.14
LABOR COST:	\$5,068.62	\$0.00	\$5,068.62
OVERHEAD:	\$6,715.92	\$0.00	\$6,715.92
	\$11,784.54	\$0.00	\$11,784.54
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$29,118.36	\$0.00	\$29,118.36
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$29,118.36	\$0.00	\$29,118.36

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925100

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
6304 2004343	CABLE, ALUMINUM, 15KV, 1/C, 1/0 AWG SOLI	\$2.08	\$13,112.53	Y
2 2004514	CAP, CONDUIT 2"	\$12.21	\$24.42	N
2 2004453	CAP, END CABLE 600 V CABLE RANGE .940 -	\$1.96	\$3.92	N
2 2003752	CLAMP, CONDUIT GROUND 1-1/4 IN - 2 IN CO	\$7.92	\$15.84	N
0 2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$0.00	Y
2 2077837	CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$1.32	N
44 2077931	CONNECTOR, VICE CU #2 STR	\$2.38	\$104.72	N
40 2004642	KIT, SEALING, CABLE ACCESSORY, 1/0 - 4/0	\$9.46	\$378.40	N
8 2004403	STRAP, GALV 2 IN 2 HOLE	\$0.28	\$2.24	N
40 2004883	TERMINATOR, LOADBREAK 200 AMP, 1/0 SOL	\$37.76	\$1,510.40	Y
2 2004633	TERMINATOR, POTHEAD 15KV OUTDOOR 1/0 JCN	\$35.75	\$71.50	Y
4 2004184	WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$2.52	N
	Total		\$15,227.81	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925103

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Svcs
HDUG SECONDARY

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft SECONDARY CABLE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$8,598.95	\$0.00	\$8,598.95
OVERHEAD:	\$1,189.23	\$0.00	\$1,189.23
	\$9,788.18	\$0.00	\$9,788.18
LABOR HOURS:	146.42	0	146.42
LABOR COST:	\$6,445.28	\$0.00	\$6,445.28
OVERHEAD:	\$8,540.02	\$0.00	\$8,540.02
	\$14,985.30	\$0.00	\$14,985.30
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$24,773.48	\$0.00	\$24,773.48
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$24,773.48	\$0.00	\$24,773.48

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
 Dist: CSA

WR No. 925103

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
2029 2004354	CABLE, SWEETBRIAR, AL,UG,600V,2/C,4/0 AW	\$1.39	\$2,820.59	Y
45 2005022	CONNECTOR, 600V URD, 6 POSITION, CONDUCT	\$14.92	\$671.40	N
12 2005025	CONNECTOR, 600V, URD, 8 POSITION, CONDUCT	\$30.35	\$364.20	N
22 2000241	DECAL,WARNING,NOTICE,CLEARANCE,10" X 7"	\$3.56	\$78.32	N
22 2004714	HANDHOLE, ABOVE GRADE, LARGE DOME	\$186.22	\$4,096.84	N
22 2005212	MARKER, CURB LEXAN .040 THICK, ROUND 2.5	\$2.83	\$62.26	N
22 2007395	PADLOCK, RED BRASS BODY 1/4" BRASS SHACK	\$22.97	\$505.34	N
	Total		\$8,598.95	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925104

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Svcs
HDUG SEC CONDUIT

Additional Information: Full PSC Filing 10/2010

WR Description: HDUG 1250 sq ft SECONDARY CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$5,153.37	\$0.00	\$5,153.37
OVERHEAD:	\$712.71	\$0.00	\$712.71
	\$5,866.08	\$0.00	\$5,866.08
LABOR HOURS:	0	0	0
LABOR COST:	\$0.03	\$0.00	\$0.03
OVERHEAD:	\$0.05	\$0.00	\$0.05
	\$0.08	\$0.00	\$0.08
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$5,866.16	\$0.00	\$5,866.16
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$5,866.16	\$0.00	\$5,866.16

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
 Dist: CSA

WR No. 925104

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
1	2007227 CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$6.22	N
6	2007228 CEMENT, PVC GRAY MEDIUM DRY QUART W/DAUB	\$7.27	\$43.62	N
291	2004517 CONDUIT, PVC P & C 3 IN 20 FT	\$1.70	\$494.70	Y
1410	2004529 CONDUIT, PVC, 4" X 20', DB-60-TC-6	\$2.78	\$3,919.80	Y
16	2004521 COUPLING, PVC 3 IN SCH 40 TEMS 13.01	\$2.95	\$47.20	N
72	2004535 COUPLING, PVC 4 IN SCH 40 TEMS 13.01	\$4.28	\$308.16	N
8	2004524 ELBOW, PVC 3 IN 90 DEG 13 IN RAD SCH 40	\$4.52	\$36.16	N
36	2004538 ELBOW, PVC 4", 90 DEG., 16" RADIUS, SCHE	\$6.68	\$240.48	N
1901	2007414 TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$57.03	N
	Total		\$5,153.37	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925106

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Svcs
HDUG SERVICE CABLE

Additional Information: Full PSC Filing 10/2010
WR Description: HDUG 1250 sq ft SERVICE CABLE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$16,257.47	\$0.00	\$16,257.47
OVERHEAD:	\$2,248.40	\$0.00	\$2,248.40
	\$18,505.87	\$0.00	\$18,505.87
LABOR HOURS:	1.53	0	1.53
LABOR COST:	\$67.48	\$0.00	\$67.48
OVERHEAD:	\$89.41	\$0.00	\$89.41
	\$156.89	\$0.00	\$156.89
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$18,662.76	\$0.00	\$18,662.76
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$18,662.76	\$0.00	\$18,662.76

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925106

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
16097 2004351	CABLE, CONVERSE, AL, UG, 600V, 2/C, 2/0,	\$1.01	\$16,257.47	Y
Total			\$16,257.47	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925108

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Svcs
HDUG SET METERS

Additional Information: Full PSC Filing 10/2010
WR Description: HDUG 1250 sq ft METERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	35.27	0	35.27
LABOR COST:	\$1,552.59	\$0.00	\$1,552.59
OVERHEAD:	\$2,057.18	\$0.00	\$2,057.18
	\$3,609.77	\$0.00	\$3,609.77
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$3,609.77	\$0.00	\$3,609.77
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$3,609.77	\$0.00	\$3,609.77

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925110

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Svcs
HDUG SERVICE CONDUIT

Additional Information: Full PSC Filing 10/2010
WR Description: HDUG 1250 sq ft SERVICE CONDUIT

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$18,669.34	\$0.00	\$18,669.34
OVERHEAD:	\$2,581.97	\$0.00	\$2,581.97
	\$21,251.31	\$0.00	\$21,251.31
LABOR HOURS:	0	0	0
LABOR COST:	\$0.13	\$0.00	\$0.13
OVERHEAD:	\$0.19	\$0.00	\$0.19
	\$0.32	\$0.00	\$0.32
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$21,251.63	\$0.00	\$21,251.63
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$21,251.63	\$0.00	\$21,251.63

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925110

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
176 2004493	ADAPTOR, 2" PVC, FEMALE SLIP TO MALE THR	\$0.40	\$70.40	N
31 2007227	CEMENT, PVC CLEAR FAST DRY QUART W/DAUBE	\$6.22	\$192.82	N
15330 2004488	CONDUIT, PVC 2 IN 20 FT BELL END	\$1.03	\$15,789.90	Y
176 2004491	CONDUIT, PVC 2 IN 250 FT ROLL FLEXIBLE	\$1.13	\$198.88	N
176 2004401	CONDUIT, SERVICE RISER, PVC, 2"	\$4.92	\$865.92	N
896 2004507	COUPLING, PVC 2 IN SCH 40 TEMS 13.01	\$0.60	\$537.60	N
448 2004511	ELBOW, CONDUIT PVC 2 IN SCH 40 90 DEG 9-	\$1.26	\$564.48	N
176 2004396	NUT, LOCK GALV 2 IN	\$0.54	\$95.04	N
11810 2007414	TAPE, PULLING, POLYSTER, RATED AT 1250#,	\$0.03	\$354.30	N
		Total	\$18,669.34	

OH Construction Cost Data Summary
High Density (176-Lot) OH Subdivision Costs

Line #	Work Type/WR #	Description	C (D+ M) Material and Handling	D Material	E (F + L) Total Labor Plus Vehicles	F (G + H + I) Total Labor	G Base Labor	H (G x J x TLF) Operations Labor Overheads	I (G x K x CLF) Contract Labor Overheads	J TEC Work %	K Contractor Work %	L Vehicle	M (D x MHR) Material Handling	N (C+E) Total
1	Transformers													
2	925111	Install & Ground Transformers	31,143.07	27,751.80	12,366.93	11,060.26	6,439.97	4,103.55	516.74	60%	40%	\$1,306.67	3,391.27	43,510.00
3														
4	Primary													
5	925112	Install Primary Line includes Grounding Primary Takeoffs	2,544.16	2,267.12	6,190.06	5,536.03	3,223.42	2,053.96	258.65	60%	40%	\$654.03	277.04	8,734.22
6														
7	Poles													
8	925113	Install Poles and Guy Stubs Includes Haul Poles Out	22,510.66	20,059.40	36,177.05	32,354.65	18,838.88	12,004.13	1,511.63	60%	40%	\$3,822.41	2,451.26	58,687.71
9														
10	Secondary													
11	925114	Install Secondary Cable	12,719.79	11,334.69	18,719.51	16,741.64	9,748.02	6,211.44	782.18	60%	40%	\$1,977.87	1,385.10	31,439.30
12														
13	Services													
14	927142	Install Service Cable	10,342.22	9,216.02	12,847.44	11,490.00	6,690.19	4,262.99	536.82	60%	40%	\$1,357.44	1,126.20	23,189.66
15	927163	Install Meters	17,751.95	\$15,818.88	3,314.51	2,666.48	1,552.59	989.31	124.58	60%	40%	648.03	1,933.07	21,066.46
16			28,094.16	25,034.90	16,161.95	14,156.48	8,242.78	5,252.30	661.40			2,005.47	3,059.26	44,256.11
17														
18	Engineering	Design/Inspection/Coordination	-	-	10,785.62		-	-	-	100%	0%		-	10,785.62
19														
20	Tree Trim		-	-	-	-	-	-	-			-	-	-
21														
22	Totals (Sum of lines 2, 5, 8, 11, 16, 18, and 20)		97,011.84	86,447.91	100,401.14	79,849.06	46,493.07	29,625.38	3,730.60			9,766.45	10,563.93	197,412.98
23	Cost "Per Lot" (Line 34/ 176 lots)		551.20		570.46									1,121.66

Adjustment Factors	
TEC Labor Overhead Factor (excludes engineering)	TLF = 1.062
Contractor Labor Overhead Factor	CLF = 0.2006
Current year material handling charge rate	MHR = 0.1222

High Density - 176 Lots - Overhead Material List

This worksheet lists the totals for major materials to be listed on the associated work request print as requested by the PSC.

737.5 Total Connected KVA
800 Total peak demand KVA
2 25 kVA Transformers
5 37.5 kVA Transformers
7 50 kVA Transformers
2 75 kVA Transformers
0 100 kVA Transformers
6165 #2AAAC Primary
44 Primary Poles
5155 2/0 AWG Triplex Secondary
0 4/0 AWG Triplex Secondary
225 #2AAAC Secondary Neutral
965 2-2/0 & 1-1/0 AL Triplex Service Drop (considered secondary)
0 2-4/0 & 1-2/0 AL Triplex Service Drop (considered secondary)
19 Secondary Poles
8960 2-2/0 & 1-1/0 AL Triplex Service Drop
0 2-4/0 & 1-2/0 AL Triplex Service Drop

Summary of assemblies (CU's) for High Density Overhead Design - March 2018

Work Request #1	925111 - Transformers (enter these Construction Units into WorkPro)								
Assemblies ==>>	25 KVA PKT11W3F	37.5 KVA PKT11W4F	50 KVA PKT11W5F	75 KVA PKT11W6F	100 KVA PKT11W7F	Stirrup ALSTRP1/0	Spacer SEWC	Grounding GRDMEG1/2	
Total Quantities ==>	2	5	7	2	0	16	16	16	

Work Request #2	925112 - Primary								
Assemblies ==>>	#2 AAAC WIOPA	1st span WIO2F	Additional WIO2A	1st span WIO1F	Additional WIO1A	Fused cutouts PKP208WB3A	DE & TAP PKP101WA3A	Fuses FLOH103	Grounding GRDMEG1/2
Total Quantities ==>	6165	1	7	3	32	1	4	2	3

Work Request #3	925113 - Poles and Guys												
Should be ==>>>	Pole haul	2ø Deadend	2 ø tangent	2 ø Corner	1ø Deadend	1ø angle <20	1ø angle <20	1ø Tangent	1ø angle >20	3 ø	Down guys	Pole hardware	Guy wire
Assemblies ==>>>	POLE_HAUL	STP402_DE_40C2	STP103_TAN_40C2	STP302_RC_40C2	STP401_DE_40C2	STP101_ANG_40C2	STP101_ANG_45C2	STP101_TAN_40C2	STP301_RC_40C2	STP104E4B	PKG12W2H	PKG31WIH	GUYSTR3/8
Total Quantities ==>	44	1	6	1	4	5	2	13	11	1	29	4	340

Work Request #4	925114 - Secondary - From Secondary&Neutral worksheet												
Assemblies ==>>>	35' CL 4 STS11C	POLE_HAUL	2/0 WIO3SB	4/0 WIO3SC	#2 Neutral C2AAAC	Labor WIOCF	Labor WIOCA	Eyebolt SEW1DEN	Eyebolt SEG1DEN	DE+Bolt PKS11W	CABLEOPEN	Pole hardware PKG31WIH	Guy wire GUYSTR3/8
Total Quantities ==>	0	0	5155	0	225	6	37	2	2	8	14	8	565

More of Work Request #4	- Secondary continued - From Secondary&Neutral worksheet and SlackSecondary (service cable) & Secondary Poles worksheet											
Assemblies ==>>>	POLE_HAUL	35' Class 4 STS11C	Deadend PKS21G	Clamp CLMIDSPAN	2/0 triplex CA2/0TPX	4/0 triplex CA4/0TPX	0 SVLABOR	Down guys CLM1W1H	Pole hardware PKG31W1H	Guy wire GUYSTR3/8		
Total Quantities ==>	19	19	35	3	965	0	19	1	2	50		

Work Request #5	927142 - Services			
Assemblies	2/0 triplex CA2/0TPX	4/0 triplex CA4/0TPX	Clamp CLMIDSPAN	SVLABOR
Quantities	8960	0	26	0

Work Request #5	927163 - Set Meter
Assemblies	METERLABOR
Quantities	176



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925111

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:
Tampa Electric

Distribution Services
HDOH TRANSFORMER

Additional Information: Full PSC Filing 10/2010
WR Description: HDOH 1250 sq ft TRANSFORMERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$27,751.80	\$0.00	\$27,751.80
OVERHEAD:	\$3,838.05	\$0.00	\$3,838.05
	\$31,589.85	\$0.00	\$31,589.85
LABOR HOURS:	146.26	0	146.26
LABOR COST:	\$6,439.97	\$0.00	\$6,439.97
OVERHEAD:	\$8,532.90	\$0.00	\$8,532.90
	\$14,972.87	\$0.00	\$14,972.87
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$46,562.72	\$0.00	\$46,562.72
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$46,562.72	\$0.00	\$46,562.72

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925111

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
16	2003646 ARRESTER, DISTRIBUTION, 10KV, 8.4KV MCOV	\$39.68	\$634.88	Y
14	2077754 BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$14.56	N
32	2077755 BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$37.12	N
16	2003690 BRACKET, CUTOUT, ARRESTER & POTHEAD DWG	\$7.22	\$115.52	N
16	2004660 BRACKET,"L" 5-5/8"IN LENGTH FOR MTG CUTO	\$10.41	\$166.56	N
208	2004197 CABLE, HANDCOIL, COPPER, 600V, 2/0 AWG,	\$2.32	\$482.56	N
24	2004199 CABLE, HANDCOIL, COPPER, 600V, 4/0 AWG,	\$3.75	\$90.00	N
16	2077906 CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$28.80	N
16	2077911 CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$91.68	N
32	2078000 CLAMP,GND,TRANSFORMER,#10 SOL-#1 STR CU	\$2.31	\$73.92	N
640	2078012 CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$537.60	N
4	2003528 CONNECTOR, 2-BOLT AL MAIN 336-500MCM TAP	\$25.78	\$103.12	N
42	2077839 CONNECTOR, COMPRESSION H-BLOCK ACSR 1/0-	\$0.53	\$22.26	N
16	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$10.56	N
2	2077845 CONNECTOR, COMPRESSION H-BLOCK ACSR 4/0	\$0.68	\$1.36	N
64	2077930 CONNECTOR, VICE CU #4 STR	\$1.91	\$122.24	N
48	2077939 COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$229.44	N
24	2003516 COVER, SNAP-ON SQUEEZON CONNECTOR D DIE	\$0.39	\$9.36	N
16	2003846 CUTOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$1,131.84	Y
7	2077806 FUSE LINK, 10A UNVRSL 100A CUTOUT 23" OA	\$3.91	\$27.37	N
2	2077807 FUSE LINK, 15A UNVRSL 100A CUTOUT 23" OA	\$3.93	\$7.86	N
2	2077804 FUSE LINK, 5A UNVRSL 100A CUTOUT 23" OAL	\$3.90	\$7.80	N
5	2077805 FUSE LINK, 7A UNVRSL 100A CUTOUT 23" OAL	\$3.89	\$19.45	N
32	2077965 MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$55.68	N
16	2007368 PROTECTOR, WILD LIFE, SLIP-ON TYPE	\$5.35	\$85.60	N
64	2077980 ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$878.08	N
16	2077767 ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$42.40	N
16	2077789 SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$4.32	N
16	2077812 SPACER, CABLED SECONDARY	\$6.79	\$108.64	N
140	2077997 STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$37.80	N
2	2001367 TX,OH,25 kVA,7.62/13.2Y,120/240,FR3	\$1,046.46	\$2,092.92	Y
5	2001368 TX,OH,37.5 kVA,7.62/13.2Y,120/240,FR3	\$1,253.83	\$6,269.15	Y
7	2001369 TX,OH,50 kVA,7.62/13.2Y,120/240,FR3	\$1,463.60	\$10,245.20	Y
2	2001370 TX,OH,75 kVA,7.62/13.2Y,120/240,FR3	\$1,924.56	\$3,849.12	Y
80	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$19.20	N
48	2078014 WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$5.28	N
50	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$31.75	N
160	2078011 WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$60.80	N
	Total		\$27,751.80	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925112

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:
Tampa Electric

Distribution Services
HDOH PRIMARY

Additional Information: Full PSC Filing 10/2010
WR Description: HDOH 1250 sq ft PRIMARY

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$2,267.12	\$0.00	\$2,267.12
OVERHEAD:	\$313.55	\$0.00	\$313.55
	\$2,580.67	\$0.00	\$2,580.67
LABOR HOURS:	73.22	0	73.22
LABOR COST:	\$3,223.42	\$0.00	\$3,223.42
OVERHEAD:	\$4,271.04	\$0.00	\$4,271.04
	\$7,494.46	\$0.00	\$7,494.46
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$10,075.13	\$0.00	\$10,075.13
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$10,075.13	\$0.00	\$10,075.13

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925112

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
3	2003646 ARRESTER, DISTRIBUTION, 10KV, 8.4KV MCOV	\$39.68	\$119.04	Y
2	2077738 BOLT, 5/8" X 8" EYE GALV RTS 12,400 LBS.	\$2.99	\$5.98	N
4	2077739 BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$12.48	N
2	2077744 BOLT, MACHINE 1/2 INCH X 7 INCH	\$0.92	\$1.84	N
4	2077754 BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$4.16	N
1	2077756 BOLT,MACHINE,SQ HEAD,5/8"X14",ONE SQ NUT	\$1.29	\$1.29	N
3	2003681 BRACKET, "L", LIGHTNING ARRESTER 10 KV	\$7.95	\$23.85	N
2	2004660 BRACKET,"L" 5-5/8"IN LENGTH FOR MTG CUTO	\$10.41	\$20.82	N
8	2077818 CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$72.96	N
3	2077906 CLAMP, GROUND ROD, F/U/W 1/2"ROD	\$1.80	\$5.40	N
9	2077911 CLAMP, HOT LINE CU TO CU #6 SOL- 2 STR T	\$5.73	\$51.57	N
3	2077813 CLAMP, SLACK SPAN DEADEND #2 ACSR - 2/0	\$10.09	\$30.27	N
6473	2004331 CONDUCTOR, BARE OVERHEAD, 2 AWG, AAAC, 7	\$0.15	\$971.00	Y
120	2078012 CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$100.80	N
11	2077838 CONNECTOR, COMPRESSION H-BLOCK ACSR #2-1	\$0.41	\$4.51	N
7	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$4.62	N
6	2077930 CONNECTOR, VICE CU #4 STR	\$1.91	\$11.46	N
9	2077939 COUPLER, GROUND ROD, F/U/W 1/2"ROD	\$4.78	\$43.02	N
1	2002955 CROSSARM, 5' DEADEND COMPOSITE	\$116.70	\$116.70	N
2	2003846 CUTOOUT, 15KV, 100A FUSE HLDR, 300A UNVRS	\$70.74	\$141.48	Y
2	2077794 FUSE LINK, 103A UNVRSL 100A CUTOOUT 23" O	\$24.29	\$48.58	N
1	2077954 INSULATOR, PIN TYPE, 10KV, ANSI CLASS 55	\$3.75	\$3.75	N
2	2003882 INSULATOR, POLYMER VERTICAL LINE POST 25	\$50.80	\$101.60	N
4	2077959 INSULATOR, SUSPENSION, POLYMER, 25KV, AP	\$11.86	\$47.44	N
6	2077965 MOULDING, GROUND WIRE, PVC 1/2 IN X 8 FT	\$1.74	\$10.44	N
5	2077783 NUT, EYE, STANDARD, 1-1/2" GALVANIZED FO	\$1.51	\$7.55	N
1	2077971 PIN, CROSSARM 5/8" X 6-1/2" BOLT, 1" LEA	\$5.16	\$5.16	N
12	2077980 ROD,GROUND,CU BONDED,1/2"X10',THREADLESS	\$13.72	\$164.64	N
3	2077789 SCREW, LAG PILOT POINT 3/8 X 3	\$0.27	\$0.81	N
30	2077997 STAPLE, SECURES 1/2" PVC MOULDING TO WOO	\$0.27	\$8.10	N
2	2077828 STIRRUP, AL BODY & CU BAIL 1/0-397	\$17.19	\$34.38	N
7	2077826 STIRRUP, AL BODY & CU BAIL 2-4/0	\$10.18	\$71.26	N
2	2004029 STUD-LINEPOST INSULATOR 3/4"X5/8 7"BOLT	\$4.09	\$8.18	N
1	9999999 USED AS A STOCK NUMBER PLACEHOLDER	\$0.00	\$0.00	N
4	2078005 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8	\$0.23	\$0.92	N
13	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$3.12	N
2	2008135 WASHER, LOCK T316SS 1/2 IN	\$0.18	\$0.36	N
3	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$1.89	N
15	2078011 WIRE, COPPER, TIE, #6 SOLID SOFT DRAWN	\$0.38	\$5.70	N
		Total	\$2,267.12	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925113

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:
Tampa Electric

Distribution Services
HDOH POLES

Additional Information: Full PSC Filing 10/2010
WR Description: HDOH 1250 sq ft POLES

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$20,059.40	\$0.00	\$20,059.40
OVERHEAD:	\$2,774.22	\$0.00	\$2,774.22
	\$22,833.62	\$0.00	\$22,833.62
LABOR HOURS:	427.97	0	427.97
LABOR COST:	\$18,838.88	\$0.00	\$18,838.88
OVERHEAD:	\$24,961.48	\$0.00	\$24,961.48
	\$43,800.36	\$0.00	\$43,800.36
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$66,633.98	\$0.00	\$66,633.98
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$66,633.98	\$0.00	\$66,633.98

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925113

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
29	2003632 ANCHOR,SCRW GALV 10" WING 1-1/4" ROD 8"	\$48.15	\$1,396.35	N
20	2077739 BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$62.40	N
62	2077764 BOLT, MACHINE 3/4" X 12", GALV	\$2.41	\$149.42	N
40	2077754 BOLT, MACHINE 5/8" X 10", GALV. FULL	\$1.04	\$41.60	N
19	2077753 BOLT, MACHINE 5/8" X 8", GALV.	\$1.05	\$19.95	N
1	2077780 BOLT, SPOOL, 5/8" X 10", GALV. SINGLE UP	\$4.16	\$4.16	N
45	2077755 BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$52.20	N
8	2003686 BRACKET, FIBERGLASS STANDOFF VERTICAL24"	\$48.88	\$391.04	N
7	2077818 CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$63.84	N
13	2003508 CLAMP, SUSPENSION AL ANGLE RANGE .50 TO	\$13.95	\$181.35	N
19	2077924 CLEVIS, STEEL LESS INSULATOR 5/8 IN PIN	\$9.38	\$178.22	N
105	2078012 CONDUCTOR, COPPERCLAD, 3 STR. #9, DSA 30	\$0.84	\$88.20	N
25	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$16.50	N
21	2077930 CONNECTOR, VICE CU #4 STR	\$1.91	\$40.11	N
2	2077765 DOUBLE-ARMING, GALVANIZED 5/8 "X 12"	\$2.35	\$4.70	N
29	2003636 EXTENSION ROD, ANCHOR 1-1/4 X 72 6 FT	\$50.54	\$1,465.66	N
27	2077901 FIBERGLASS RIDGE-PIN	\$28.87	\$779.49	N
120	2077949 GRIP,GUY,FORMED WIRE DEADEND,3/8"EHS	\$2.27	\$272.40	N
22	2077862 GUARD, LINE #2 ACSR & AAAC STR 6/1, 7	\$1.95	\$42.90	N
3	2077863 GUARD, LINE 2/0 ACSR & AAAC STR 6/1, 7	\$2.68	\$8.04	N
62	2077951 HOOK, GUY	\$2.73	\$169.26	N
35	2077954 INSULATOR, PIN TYPE, 10KV, ANSI CLASS 55	\$3.75	\$131.25	N
1	2077952 INSULATOR, SPOOL, ANSI CLASS 53-3, TRANS	\$1.21	\$1.21	N
33	2077961 INSULATOR, STRAIN FIBERGLASS 36 IN 15,00	\$14.73	\$486.09	N
19	2077959 INSULATOR, SUSPENSION, POLYMER, 25KV, AP	\$11.86	\$225.34	N
29	2077979 MARKER, GUY WIRE PLASTIC 8' IN LENGTH CO	\$4.43	\$128.47	N
42	2002857 POLE, WOOD, 40FT CLASS 2, CCA TREATED	\$272.68	\$11,452.56	Y
2	2002858 POLE, WOOD, 45 FT CLASS 2, CCA TREATED.	\$323.31	\$646.62	Y
23	2077767 ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$60.95	N
62	2077790 SCREW, LAG 1/2" X 4", GALV., TWIST DRIVE	\$0.47	\$29.14	N
48	2077812 SPACER, CABLED SECONDARY	\$6.79	\$325.92	N
7	2003612 TIE, PREFORMED SIDE TIE #2 ACSR OR #2 A	\$2.64	\$18.48	N
28	2003613 TIE, TOP, FORMED WIRE #2 ACSR OR #2 AAAC	\$2.87	\$80.36	N
62	2078002 WASHER, CURVED, MALLEABLE, 3" X 3"	\$1.22	\$75.64	N
156	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$37.44	N
146	2078014 WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$16.06	N
2776	2005879 WIRE,GUY,EHS STEEL,GALV,3/8",15.4K RBS	\$0.33	\$916.08	N
		Total	\$20,059.40	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 925114

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Eng
HDOH SECONDARY

Additional Information: Full PSC Filing 10/2010
WR Description: HDOH 1250 sq ft SECONDARY

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$11,334.69	\$0.00	\$11,334.69
OVERHEAD:	\$1,567.60	\$0.00	\$1,567.60
	\$12,902.29	\$0.00	\$12,902.29
LABOR HOURS:	221.46	0	221.46
LABOR COST:	\$9,748.02	\$0.00	\$9,748.02
OVERHEAD:	\$12,916.13	\$0.00	\$12,916.13
	\$22,664.15	\$0.00	\$22,664.15
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$35,566.44	\$0.00	\$35,566.44
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$35,566.44	\$0.00	\$35,566.44

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 925114

Page 1 of 1

Material Number	Description	Unit Price	Total Cost	Asset?
INSTALL				
1	2003632 ANCHOR,SCRW GALV 10" WING 1-1/4" ROD 8"	\$48.15	\$48.15	N
10	2077739 BOLT, EYE, 5/8 IN. X 10 IN., GALVANIZED	\$3.12	\$31.20	N
11	2077764 BOLT, MACHINE 3/4" X 12", GALV	\$2.41	\$26.51	N
1	2077755 BOLT,MACHINE,SQ HEAD,5/8"X12",ONE SQ NUT	\$1.16	\$1.16	N
5413	2004338 CABLE, OVERHEAD SECONDARY, TRIPLEX, 2/0	\$1.15	\$6,224.72	Y
1013	2004364 CABLE, SERVICE DROP AL 2-2/0 & 1-1/0 NEU	\$0.96	\$972.77	Y
43	2077818 CLAMP, DEADEND ACSR OR AAC #2-4/0OR .30-	\$9.12	\$392.16	N
3	2003770 CLAMP, MID SPAN ALUMINUM 1/4 IN - 1/2 IN	\$7.09	\$21.27	N
236	2004331 CONDUCTOR, BARE OVERHEAD, 2 AWG, AAAC, 7	\$0.15	\$35.45	Y
129	2077839 CONNECTOR, COMPRESSION H-BLOCK ACSR 1/0-	\$0.53	\$68.37	N
8	2077837 CONNECTOR, COMPRESSION H-BLOCK ACSR 2/0	\$0.66	\$5.28	N
8	2077931 CONNECTOR, VICE CU #2 STR	\$2.38	\$19.04	N
86	2003516 COVER, SNAP-ON SQUEEZON CONNECTOR D DIE	\$0.39	\$33.54	N
1	2003636 EXTENSION ROD, ANCHOR 1-1/4 X 72 6 FT	\$50.54	\$50.54	N
12	2077949 GRIP,GUY,FORMED WIRE DEADEND,3/8"EHS	\$2.27	\$27.24	N
11	2077951 HOOK, GUY	\$2.73	\$30.03	N
10	2077961 INSULATOR, STRAIN FIBERGLASS 36 IN 15,00	\$14.73	\$147.30	N
1	2077979 MARKER, GUY WIRE PLASTIC 8" IN LENGTH CO	\$4.43	\$4.43	N
37	2077783 NUT, EYE, STANDARD, 1-1/2" GALVANIZED FO	\$1.51	\$55.87	N
19	2002842 POLE, WOOD, 35 FT, CLASS 4, CCA TREATED.	\$141.93	\$2,696.67	Y
19	2077767 ROLLED BOLT, DOUBLE-ARMING, 5/8"X 16"	\$2.65	\$50.35	N
11	2077790 SCREW, LAG 1/2" X 4", GALV., TWIST DRIVE	\$0.47	\$5.17	N
19	2077812 SPACER, CABLED SECONDARY	\$6.79	\$129.01	N
11	2078002 WASHER, CURVED, MALLEABLE, 3" X 3"	\$1.22	\$13.42	N
50	2078006 WASHER, FLAT, GALVANIZED, 2" X 2" X 1/8"	\$0.24	\$12.00	N
57	2078014 WIRE, ALUMINUM, TIE, #4 BARE ANNEALED	\$0.11	\$6.27	N
16	2004184 WIRE, COPPER, BARE, #4 SOFT DRAWN 7 STR	\$0.63	\$10.08	N
657	2005879 WIRE,GUY,EHS STEEL,GALV,3/8",15.4K RBS	\$0.33	\$216.81	N
		Total	\$11,334.69	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 927142

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Distribution Services
HDOH SERVICE

Additional Information: Full PSC Filing 10/2010
WR Description: HDOH 1250 sq ft SERVICE

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$9,216.02	\$0.00	\$9,216.02
OVERHEAD:	\$1,274.57	\$0.00	\$1,274.57
	\$10,490.59	\$0.00	\$10,490.59
LABOR HOURS:	151.98	0	151.98
LABOR COST:	\$6,690.19	\$0.00	\$6,690.19
OVERHEAD:	\$8,864.50	\$0.00	\$8,864.50
	\$15,554.69	\$0.00	\$15,554.69
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$26,045.28	\$0.00	\$26,045.28
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$26,045.28	\$0.00	\$26,045.28

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).



Work Request Material Summary

Includes Truck Stock

Design Number 1

Printed Date: 3/11/2021
Dist: CSA

WR No. 927142

Page 1 of 1

Material Number		Description	Unit Price	Total Cost	Asset?
INSTALL					
9408	2004364	CABLE, SERVICE DROP AL 2-2/0 & 1-1/0 NEU	\$0.96	\$9,031.68	Y
0	2004366	CABLE, SERVICE DROP AL 2-4/0 & 1-2/0 NEU	\$1.42	\$0.00	Y
26	2003770	CLAMP, MID SPAN ALUMINUM 1/4 IN - 1/2 IN	\$7.09	\$184.34	N
Total				\$9,216.02	



Estimate Summary
Design Number 1

Printed Date: 3/11/2021

District: CSA

WR No. 927163

Date Sched: 4/1/21

Date Required: 4/1/21

Contact Name:

Dist Svcs
HDOH METERS

Additional Information: Full PSC Filing 10/2010
WR Description: HDOH 1250 sq ft METERS

INSTALLATION:	Capital	Oper./Maint.	Total
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	35.27	0	35.27
LABOR COST:	\$1,552.59	\$0.00	\$1,552.59
OVERHEAD:	\$2,057.18	\$0.00	\$2,057.18
	\$3,609.77	\$0.00	\$3,609.77
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$3,609.77	\$0.00	\$3,609.77
REMOVAL:			
MATERIAL:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TRANSFER:			
LABOR HOURS:	0	0	0
LABOR COST:	\$0.00	\$0.00	\$0.00
OVERHEAD:	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
VEHICLE:	\$0.00	\$0.00	\$0.00
CONTRACTOR:	\$0.00	\$0.00	\$0.00
ADDITIONAL ITEMS:	\$0.00	\$0.00	\$0.00
SUBTOTAL:	\$0.00	\$0.00	\$0.00
TOTALS:	\$3,609.77	\$0.00	\$3,609.77

THIS FORM IS NOT TO BE USED FOR CONTRIBUTION IN AID CONSTRUCTION (CIAC).

Differential costs for single phase (1Ø) services from an overhead source

OVERHEAD SERVICE

OH Service Cable - Material Per Foot Cost

This cost includes all service clamps, connectors and connector covers required. The per foot cost is a material only number.

<u>Action</u>	<u>Description</u>	<u>Material</u>		<u>(Material Handling) Overhead</u>		<u>OH Service Material Cost Per Foot</u>
install	76' - 1Ø - 2/0 AWG Triplex	\$92.14	+	\$11.26	= \$103.40 + 76 =	\$1.36
install	76' - 1Ø - 4/0 AWG Triplex	\$140.93	+	\$17.22	= \$158.15 + 76 =	\$2.08

OH Service Cable - Fixed Cost

Fixed Cost = TEC labor plus Contractor labor cost to install the service cable, includes labor plus overheads and vehicle plus the Net Present Value of Operation Cost with Storm Cost.

OH Service - Net Present Value of Operation Cost with Storm Cost	\$104.26
Labor cost to install 2/0 triplex service cable	\$151.14
Labor cost to install 4/0 triplex service cable	\$151.92

OH SERVICE CABLE - Cost Table

<u>OH Description</u>	<u>Installation Cost</u>			
	<u>Material</u>		<u>Fixed</u>	<u>Per Foot</u>
1Ø - 2/0 AWG Triplex	\$104.26	+\$151.14=	\$255.40	\$1.36
1Ø - 4/0 AWG Triplex	\$104.26	+\$151.92=	\$256.18	\$2.08

OH Service - Poles

This is the cost to haul a service pole to the site and install an overhead service pole.

<u>Action</u>	<u>Description</u>	<u>Total</u>
install	Accessible 35' wood pole	\$801.36
	Average cost to install a service pole	\$801.36

UNDERGROUND SERVICE

UG Service from an OH Source - Per Foot Cost

This is the material cost of the conduit and cable in the trench, plus the contractor labor to dig the trench and install the conduit and cable in the trench, plus the cost of the TEC inspector.

Action	Description	UG Cable Material Cost		UG Conduit Material Cost		Teco Inspection Labor		Contractor labor Machine Trench		UG Cable Machine Trench Total	
		Per Foot		Per Foot		Per Foot		Per Foot		Cost Per Foot	
install	1ø - 2/0 AWG Triplex	\$1.19	+	\$1.45	+	\$1.16	+	\$9.17	=	\$12.98	
install	1ø - 4/0 AWG Triplex	\$1.56	+	\$2.36	+	\$1.16	+	\$9.17	=	\$14.26	

UG SERVICE CABLE TO METER FROM OH SOURCE - Fixed Cost

This is the cost for the material down the pole and the material at the house riser to the meter can, plus the contractor cost to install the conduit, cable and make the connection on the pole, plus the Net Present Value of Operation Cost with Storm Cost.

UG Service - Net Present Value of Operation Cost with Storm Cost

Action	Description	Material		Installation Cost (Material Handling) Overhead		Contractor Labor		NPV OC + SC		Total Fixed Cost
install	1ø - 4/0 AWG Tpx - 3" conduit	\$160.21	+	\$19.58	+	\$87.62	+	\$81.58	=	\$348.99

UG Service Cable from an OH Source - Cost Table

UG Service Cable from an OH Source to a meter can Cable & Conduit With Machine Trench		Fixed	Installation Cost Per Foot	OH Service Equivalent Description	Installation Cost Fixed	Installation Cost Per Foot	Service Differential Cost Fixed	Service Differential Cost Per Foot
	1ø - 2/0 AWG Triplex	\$274.12	\$12.98	1Ø - 2/0 AWG Triplex	\$255.40	\$1.36	\$18.72	\$11.62
	1ø - 4/0 AWG Triplex	\$348.99	\$14.26	1Ø - 4/0 AWG Triplex	\$256.18	\$2.08	\$92.80	\$12.18

Differential costs for single phase (1ø) services from an overhead source

Fixed Charge	Cost/ft	1ø UG Secondary or 1ø UG service in conduit from OH source (Base Charge + service length times Cost/ft)
\$18.72	\$11.62	1ø 2/0 AWG, 100 ft or less, machine trench, /ft (differential) - a service 100' or less is one that would not have a service pole if it was overhead
\$92.80	\$12.18	1ø 4/0 AWG, 100 ft or less, machine trench, /ft (differential) - a service 100' or less is one that would not have a service pole if it was overhead
(\$762.64)	\$11.62	1ø 2/0 AWG, greater than 100 ft, machine trench, /ft (differential) - a service greater than 100' is one that would require a service pole if it was overhead
(\$708.56)	\$12.18	1ø 4/0 AWG, greater than 100 ft, machine trench, /ft (differential) - a service greater than 100' is one that would require a service pole if it was overhead

Conversion Cost - Conversions of single phase (1Ø) OH Services to UG Services

The "Conversion Cost" is the sum of: 1) the cost to remove whatever overhead facilities exist;

2) the cost of the remaining book value for those overhead facilities.

After paying the cost to remove and the book value, the Customer essentially becomes a new Customer and is charged the differential cost for his new underground service. The OH Service Cable Removal Cost and the Handy Whitman depreciation tables below are used to calculate the Conversion Cost. The total cost for a customer to convert his overhead service to underground service is the applicable Differential Cost for the new underground service plus the conversion cost.

1) the cost to remove whatever overhead facilities exist

Action	Average length service	Total Removal	System	System
		Cost	%	Average Cost
remove	1Ø - #2 AWG Triplex	\$87.60	10%	\$8.76
remove	1Ø - 2/0 AWG Triplex	\$87.60	70%	\$61.32
remove	1Ø - 4/0 AWG Triplex	\$87.60	20%	\$17.52
System Average cost to remove average length 1Ø service				\$87.60
		Total Removal	System	System
		Cost	%	Average Cost
remove	Service length with a service pole	\$147.57	10%	\$14.76
remove	1Ø - 2/0 AWG Triplex	\$147.57	70%	\$103.30
remove	1Ø - 4/0 AWG Triplex	\$147.57	20%	\$29.51
remove	30' wood pole, drive hook	\$303.06	50%	\$151.53
remove	35' wood pole, drive hook	\$313.38	50%	\$156.69
System Average cost to remove average long 1Ø service with service pole				\$455.79

2) the cost of the remaining book value for those overhead facilities.

Book Value Assumptions:

1. Average depreciation 0.036
2. Age of pole & service, yrs. 11
3. Handy Whitman Ratio, total dist.plant, 2007/2017 0.74

Book Value = (System Value Today) x (Handy Whitman Ratio) x (1 - (Std Dep. x Age))

Action	Average length service	Total Installation	System	System
		Cost	%	Average Cost
install	1Ø - #2 AWG Triplex	\$219.14	10%	\$21.91
install	1Ø - 2/0 AWG Triplex	\$254.54	70%	\$178.18
install	1Ø - 4/0 AWG Triplex	\$310.07	20%	\$62.01
System Average cost to install average length 1Ø service				\$262.11
Book Value for average length 1Ø service				\$117.48
		Total Installation	System	System
		Cost	%	Average Cost
install	Service length that requires a service pole	\$377.23	10%	\$37.72
install	1Ø - #2 AWG Triplex	\$447.11	70%	\$312.98
install	1Ø - 2/0 AWG Triplex	\$555.30	20%	\$111.06
install	1Ø - 4/0 AWG Triplex	\$606.95	50%	\$303.48
install	35' wood pole, cable spacer	\$606.95	50%	\$303.48
install	Haul pole to job site	\$194.41	100%	\$194.41
System Average cost to install average long 1Ø service with service pole				\$959.65
Book Value for average long 1Ø service with service pole				\$430.12

1Ø Conversion Cost from OH to UG service

1Ø Average Service - 100 ft or less(Svc without pole) = (book value + removal)

1Ø Average Long Service- Greater than 100 ft (svc with one pole) = (book value + removal)

Remove	Book value	Conversion
Cost	Cost	Cost
\$87.60	\$117.48	\$205.08
\$455.79	\$430.12	\$885.91

Tariff Sheet No. 5.516 (3.7.2)

Density Class		Current Deposit 2018	CPI -U			Proposed Deposit 2021
			2018	2019	2020	
Urban commercial or residential (\$/mile)	\$	9,896	2.40%	1.80%	0.80%	\$ 10,391
Rural commercial or residential (\$/mile)	\$	5,657	2.40%	1.80%	0.80%	\$ 5,940
Per Lot Subdivisions (\$/lot)	\$	47	2.40%	1.80%	0.80%	\$ 49

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**TAMPA ELECTRIC COMPANY
DOCKET NO. 20210064-EI
STAFF'S THIRD DATA REQUEST
REQUEST NO. 3b**

**Table I
OPERATING COSTS**

	2016 Actual \$	2017 Actual \$	2018 Actual \$	2019 Actual \$	2020 Actual \$	5-Yr Average \$	OH Ratio	UG Ratio	5-Yr Average Allocated Overhead \$	5-Yr Average Allocated Underground \$
Overhead - Blanket Account										
D-CRR-Voltage-OH (NEW)										
PRE - Dist Line - Fault Indicators										
Distr - Maint - Corrective - OH Line										
Distribution - Maint - Maint & Coordination										
Distr - Maint - Preventative - OH Line										
Distr - Maint - Trouble - OH Storm										
Distr - Maint - Pole Inspect & Change-Outs										
Distr - Maint - Damage Replacement - OH Line										
CRR - Dist Line - Reclosers / Trip-savers										
Distr - Maint - Capacitors										
Distr - Maint - Trouble - Non-Storm										
Distr - Maint - Tree Trimming - Planned										
Distr - Env - Train/Permit/Inspect/Audit/Protect										
Distr - Maint - Tree Trimming - Unplanned										
Distr - Maint - Pole Reinforcements										
Distr - Maint - Pole CLAs & Change-Outs										
Distr - Maint - Infrared Thermography										
Distr - Maint - Services - OH Line										
Subtotal										
Underground - Blanket Account										
D-CRR-Voltage-UG										
D-PRE-Transformers-UG										
Distr - Maint - Corrective - UG Line										
Distribution - Maint - UG System Improvements										
Distribution - Maint - Mgmt & Coordination										
Distr - Maint - Preventative - UG Line										
Distr - Maint - Network Corrective										
Distr - Maint - Network Preventative										
Distr - Maint - Capacitors - UG										
Distr - Maint - UG Cable Rplcmnt - Planned										
Distr - Maint - Trouble - UG Storm										
Distr - Maint - Damage Replacement - UG Line										
Distr - Maint - UG Cable Rplcmnt - Unplanned										
Distr - Maint - Services - UG Line										
Subtotal										
Overhead - O&M Account										
D-CRR-Voltage-OH (NEW)										
Distr - Maint - Corrective - OH Line										
Distribution - Maint - OH System Improvements										
Distribution - Maint - Mgmt & Coordination										
Distr - Maint - Preventative - OH Line										
Distr - Maint - Trouble - OH Storm										
Distr - Maint - Pole Inspect & Change-Outs										
Distr - Maint - Damage Replacement - OH Line										
Distr - Maint - Capacitors										
Distr - Maint - Trouble - Non-Storm										
CRR - Dist Line - Storms - OH - Restoration										
CRR - Dist Line - Reclosers / Trip-savers										
Distr - Maint - Tree Trimming - Planned										
Distr - Env - Train/Permit/Inspect/Audit/Protect										
Distr - Maint - Tree Trimming - Unplanned										
Distr - Maint - Pole Reinforcements										
Distr - Maint - Pole CLAs & Change-Outs										
Distr - Maint - Infrared Thermography										
Distr - Maint - Services - OH Line										
Subtotal										
Underground - O&M Account										
D-PRE-Transformers-UG										
Distr - Maint - Corrective - UG Line										
Distribution - Maint - UG System Improvements										
Distribution - Maint - Mgmt & Coordination										
Distr - Maint - Preventative - UG Line										
Distr - Maint - Network Corrective										
Distr - Maint - Network Preventative										
Distr - Locate Facilities										
Distr - Maint - UG Cable Rplcmnt - Planned										
Distr - Maint - Trouble - UG Storm										
D-CRR-Capacitors-UG										
D-CRR-Storms-UG										
Distr - Maint - Damage Replacement - UG Line										
Distr - Maint - UG Cable Rplcmnt - Unplanned										
Distr - Maint - Services - UG Line										
Subtotal										

**TAMPA ELECTRIC COMPANY
DOCKET NO. 20210064-EI
STAFF'S THIRD DATA REQUEST
REQUEST NO. 3b**

**Table II
PRIMARY VOLTAGE SYSTEM**

	2016 Actual \$	2017 Actual \$	2018 Actual \$	2019 Actual \$	2020 Actual \$	5-Yr Average \$	OH Ratio	UG Ratio	Allocated Overhead \$	Allocated Underground \$	
Distribution - Maint - Trouble Calls - Non-storm Blanket	\$0	\$0	\$0	\$0	\$0	\$0	77.7%	22.3%	\$0	\$0	
O&M	\$1,971,141	\$2,299,168	\$2,387,796	\$2,807,237	\$2,814,800	\$2,456,028	77.7%	22.3%	\$1,908,334	\$547,694	
Operating Cost Total from Table I									\$54,684,741	\$26,084,112	
									(A) 5 Yr Avg Annual Operational Cost	\$56,573,076	\$26,631,806

	2016 Actual \$	2017 Actual \$	2018 Actual \$	2019 Actual \$	2020 Actual \$	5-Yr Average \$	OH Ratio	UG Ratio	Allocated Overhead \$	Allocated Underground \$	
Distr - Maint - Tree Trimming - Planned Blanket	\$0	\$0	\$0	\$0	\$0	\$0	96.1%	3.9%	\$0	\$0	
O&M	\$10,947,625	\$6,994,398	\$10,316,539	\$13,767,350	\$16,990,720	\$11,803,326	96.1%	3.9%	\$11,343,279	\$460,047	
Distr - Maint - Tree Trimming - Unplanned Blanket	\$0	\$0	\$0	\$0	\$0	\$0	96.1%	3.9%	\$0	\$0	
O&M	\$1,415,113	\$1,443,955	\$1,562,584	\$2,222,800	\$2,026,699	\$1,734,230	96.1%	3.9%	\$1,686,637	\$87,593	
									(B) 5 Yr Avg Annual Line Clearance Cost	\$13,009,916	\$527,640

Annual Estimated Storm Costs											
Storm Damage Annual Accrual											
Percent for Distribution Lines & Substations											
Percent for Substations											
Percent for Distribution Lines											
Overall Distribution Percent											
Storm Cost Distribution Lines	\$ 8,948,000.0	\$ 92,818,327.0	\$43,133	\$7,219,800	\$794,787	\$ 21,964,810	96.0%	4.0%	\$21,086,217	\$107,436	
									(C) Estimated Annual Storm Cost	\$21,086,217	\$107,436

Pole Attachment Revenue	\$4,315,418	\$4,375,284	\$4,429,688	\$4,495,861	\$4,591,960	\$4,441,642	100.0%	0.0%	\$4,441,642	\$0	
									(D) 5 Yr Avg Annual Pole Attachment Revenue	\$4,441,642	\$0

**Table III
SERVICE CONDUCTOR**

Distr - Maint - Services - OH Line Blanket	\$833,061	\$825,826	\$774,551	\$892,002	\$966,573	\$858,403	100.0%	0.0%	\$858,403	\$0	
O&M	\$746,690	\$771,285	\$786,519	\$808,204	\$839,741	\$790,488	100.0%	0.0%	\$790,488	\$0	
Distr - Maint - Services - UG Line Blanket	\$911,653	\$1,054,181	\$1,089,934	\$895,524	\$812,991	\$952,857	0.0%	100.0%	\$0	\$952,857	
O&M	\$543,869	\$340,185	\$423,145	\$654,095	\$712,258	\$534,710	0.0%	100.0%	\$0	\$534,710	
									(A) 5 Yr Avg Annual Operational Cost	\$1,648,890	\$1,487,567

**Table IV
ALLOCATION FACTORS**

Line Clearance			
2020 No. of company owned distribution poles	418,770	96.1%	
2020 No. of Terminal Poles on System	16,322	3.9%	
Distribution - Maint - Trouble Calls - Non-storm			
No Outage Events (N)	2020 Entire System	2020 Overhead System	2020 Underground System
Outage Sys Avg Duration (L-Bar)	9,810	8,018	1,792
Trouble Calls Weighted Avg Proportion (N) X (L-Bar) Allocation Percentage	166.49	158.36	202.88
	1,633,267	1,269,730	363,561
		77.7%	22.3%
Service Count (Based on Metered Accounts)			
Overhead Single & Three Phase (Excluding Multi-Family)	No of Services (Based on Metered Accounts)	246,960	
Underground Single Phase (Excluding Multi-Family)		284,735	

Table V (A)
NET PRESENT VALUE LIFECYCLE COST CALCULATION
(Primary Voltage System - Installation of Facilities In Subdivisions)

Assumptions:

Inflation Rate	0.80 %
Discount Rate	6.70 %
Book Life	35 Yrs
Pole Attach Revenue Increase	2.1 %

Overhead System									
Yr	(A) 3 Yr Avg Annual Operational Cost (\$)	(D) 3 Yr Avg Annual Pole Attachment Revenue (\$)	(A)+(D) 3 Yr Avg Annual Operational Cost Incl Lost Attachment Revenue(\$)		(B) 3 Yr Avg Annual Line Clearance Cost (\$)	(C) Estimated Annual Storm Cost (\$)	(A)+(B)+(C)+ (D) NPV Incl Storm (\$)	(A)+(B)+(D) NPV Excl Storm (\$)	(C) NPV Storm Only (\$)
			Cost	Revenue					
1	\$ 56,573,076	\$ (4,441,642)	\$ 52,131,433	\$ -	\$ 21,086,217	\$ 73,217,650	\$52,131,433	\$21,086,217	
2	57,025,660	(4,536,582)	52,489,078	-	21,254,907	69,113,388	\$49,193,138	\$19,920,250	
3	57,481,865	(4,633,552)	52,848,314	-	21,424,946	65,238,452	\$46,419,696	\$18,818,755	
4	57,941,720	(4,732,594)	53,209,126	-	21,596,346	61,580,060	\$43,801,892	\$17,778,168	
5	58,405,254	(4,833,753)	53,571,501	-	21,769,116	58,126,142	\$41,331,021	\$16,795,121	
6	58,872,496	(4,937,075)	53,935,421	-	21,943,269	54,865,297	\$38,998,866	\$15,866,431	
7	59,343,476	(5,042,605)	54,300,871	-	22,118,816	51,786,760	\$36,797,667	\$14,989,093	
8	59,818,224	(5,150,390)	54,667,834	-	22,295,766	48,880,364	\$34,720,097	\$14,160,268	
9	60,296,770	(5,260,480)	55,036,290	-	22,474,132	46,136,511	\$32,759,238	\$13,377,273	
10	60,779,144	(5,372,923)	55,406,221	-	22,653,925	43,546,132	\$30,908,559	\$12,637,573	
11	61,265,377	(5,487,769)	55,777,608	-	22,835,157	41,100,668	\$29,161,892	\$11,938,776	
12	61,755,500	(5,605,070)	56,150,430	-	23,017,838	38,792,032	\$27,513,413	\$11,278,619	
13	62,249,544	(5,724,878)	56,524,666	-	23,201,981	36,612,591	\$25,957,626	\$10,654,965	
14	62,747,540	(5,847,248)	56,900,293	-	23,387,596	34,555,134	\$24,489,338	\$10,065,796	
15	63,249,521	(5,972,233)	57,277,288	14,545,275	23,574,697	38,479,909	\$28,970,703	\$9,509,206	
16	63,755,517	(6,099,889)	57,655,628	14,661,638	23,763,295	36,321,957	\$27,338,564	\$8,983,392	
17	64,265,561	(6,230,274)	58,035,287	14,778,931	23,953,401	34,284,620	\$25,797,967	\$8,486,654	
18	64,779,685	(6,363,446)	58,416,239	14,897,162	24,145,028	32,361,175	\$24,343,793	\$8,017,382	
19	65,297,923	(6,499,465)	58,798,458	15,016,339	24,338,189	30,545,270	\$22,971,211	\$7,574,059	
20	65,820,306	(6,638,391)	59,181,915	15,136,470	24,532,894	28,830,908	\$21,675,658	\$7,155,250	
21	66,346,869	(6,780,287)	59,566,582	15,257,562	24,729,157	27,212,427	\$20,452,828	\$6,759,599	
22	66,877,644	(6,925,215)	59,952,428	15,379,622	24,926,991	25,684,478	\$19,298,652	\$6,385,825	
23	67,412,665	(7,073,242)	60,339,423	15,502,659	25,126,406	24,242,010	\$18,209,290	\$6,032,720	
24	67,951,966	(7,224,432)	60,727,534	15,626,681	25,327,418	22,880,255	\$17,181,116	\$5,699,139	
25	68,495,582	(7,378,855)	61,116,727	15,751,694	25,530,037	21,594,709	\$16,210,705	\$5,384,004	
26	69,043,547	(7,536,578)	61,506,969	15,877,708	25,734,277	20,381,118	\$15,294,824	\$5,086,294	
27	69,595,895	(7,697,672)	61,898,223	16,004,729	25,940,152	19,235,468	\$14,430,421	\$4,805,047	
28	70,152,662	(7,862,210)	62,290,452	16,132,767	26,147,673	18,153,965	\$13,614,614	\$4,539,350	
29	70,713,883	(8,030,265)	62,683,619	16,261,829	26,356,854	17,133,028	\$12,844,682	\$4,288,346	
30	71,279,595	(8,201,912)	63,077,683	16,391,924	26,567,709	16,169,276	\$12,118,054	\$4,051,221	
31	71,849,831	(8,377,227)	63,472,604	16,523,059	26,780,251	15,259,514	\$11,432,307	\$3,827,208	
32	72,424,630	(8,556,291)	63,868,339	16,655,244	26,994,493	14,400,729	\$10,785,148	\$3,615,582	
33	73,004,027	(8,739,181)	64,264,846	16,788,486	27,210,449	13,590,072	\$10,174,415	\$3,415,657	
34	73,588,059	(8,925,981)	64,662,078	16,922,794	27,428,132	12,824,855	\$9,598,067	\$3,226,788	
35	74,176,764	(9,116,774)	65,059,989	17,058,176	27,647,557	12,102,539	\$9,054,177	\$3,048,362	
					SUM	\$ 1,205,239,461	\$ 875,981,071	\$ 329,258,390	

NPV = (Annual Cost)/(1+(Discount Rate/100))^(Year -1)

Table V (B)
NET PRESENT VALUE LIFECYCLE COST CALCULATION
(Prietary Voltage System - Installation of Facilities In Subdivisions)

Assumptions:
Inflation Rate 0.80 %
Discount Rate 6.70 %
Book Life 35 Yrs
Pole Attach Revenue Increase 2.1 %

Underground System						
Yr	(A) 3 Yr Avg Annual Operational Cost (\$)	(B) 3 Yr Avg Annual Line Clearance Cost (\$)	(C) Estimated Annual Storm Cost (\$)	(A)+(B)+(C) NPV Incl Storm (\$)	(A)+(B) NPV Excl Storm (\$)	(C) NPV Storm Only (\$)
1	\$ 26,631,806	\$ -	\$ 107,436	\$ 26,739,242	\$ 26,631,806	\$107,436
2	26,844,861	-	108,296	25,260,690	25,159,195	\$101,496
3	27,059,620	-	109,162	23,863,895	23,768,011	\$95,883
4	27,276,097	-	110,035	22,544,335	22,453,754	\$90,581
5	27,494,305	-	110,916	21,297,741	21,212,169	\$85,573
6	27,714,260	-	111,803	20,120,078	20,039,237	\$80,841
7	27,935,974	-	112,697	19,007,534	18,931,163	\$76,371
8	28,159,462	-	113,599	17,956,508	17,884,360	\$72,148
9	28,384,737	-	114,508	16,963,599	16,895,441	\$68,158
10	28,611,815	-	115,424	16,025,593	15,961,204	\$64,390
11	28,840,710	-	116,347	15,139,454	15,078,625	\$60,829
12	29,071,435	-	117,278	14,302,315	14,244,849	\$57,466
13	29,304,007	-	118,216	13,511,465	13,457,177	\$54,288
14	29,538,439	-	119,162	12,764,346	12,713,060	\$51,286
15	29,774,746	589,910	120,115	12,296,487	12,248,037	\$48,450
16	30,012,944	594,629	121,076	11,616,550	11,570,779	\$45,771
17	30,253,048	599,386	122,045	10,974,211	10,930,970	\$43,240
18	30,495,072	604,181	123,021	10,367,389	10,326,540	\$40,849
19	30,739,033	609,015	124,005	9,794,122	9,755,532	\$38,591
20	30,984,945	613,887	124,997	9,252,554	9,216,097	\$36,457
21	31,232,825	618,798	125,997	8,740,932	8,706,491	\$34,441
22	31,482,687	623,748	127,005	8,257,600	8,225,064	\$32,536
23	31,734,549	628,738	128,021	7,800,995	7,770,257	\$30,737
24	31,988,425	633,768	129,046	7,369,637	7,340,599	\$29,038
25	32,244,333	638,838	130,078	6,962,131	6,934,699	\$27,432
26	32,502,287	643,949	131,119	6,577,159	6,551,243	\$25,915
27	32,762,306	649,100	132,168	6,213,473	6,188,991	\$24,482
28	33,024,404	654,293	133,225	5,869,898	5,846,769	\$23,128
29	33,288,599	659,528	134,291	5,545,320	5,523,471	\$21,850
30	33,554,908	664,804	135,365	5,238,691	5,218,049	\$20,641
31	33,823,347	670,122	136,448	4,949,016	4,929,516	\$19,500
32	34,093,934	675,483	137,539	4,675,359	4,656,938	\$18,422
33	34,366,686	680,887	138,640	4,416,834	4,399,431	\$17,403
34	34,641,619	686,334	139,749	4,172,604	4,156,164	\$16,441
35	34,918,752	691,825	140,867	3,941,879	3,926,348	\$15,532
			SUM	\$ 420,529,641	\$ 418,852,039	\$ 1,677,603

Table VI (A)
NET PRESENT VALUE LIFECYCLE COST CALCULATION
(Services)

Assumptions:

Inflation Rate	0.80 %
Discount Rate	6.70 %
Book Life	35 Yrs
Pole Attach Revenue Increase	2.1 %

Overhead System									
Yr	(A) 3 Yr Avg Annual Operational Cost (\$)	(D) 3 Yr Avg Annual Pole Attachment Revenue (\$)	(A)+(D) 3 Yr Avg Annual Operational Cost Incl Lost Attachment Revenue(\$)		(B) 3 Yr Avg Annual Line Clearance Cost (\$)	(C) Estimated Annual Storm Cost (\$)	(A)+(B)+(C)+ (D) NPV Incl Storm (\$)	(A)+(B)+(D) NPV Excl Storm (\$)	(C) NPV Storm Only (\$)
1	\$ 1,648,890	\$ -	\$ 1,648,890	\$ -	\$ -	\$ 1,648,890	\$1,648,890	\$0	
2	1,662,081	-	1,662,081	-	-	1,557,715	\$1,557,715	\$0	
3	1,675,378	-	1,675,378	-	-	1,471,580	\$1,471,580	\$0	
4	1,688,781	-	1,688,781	-	-	1,390,209	\$1,390,209	\$0	
5	1,702,291	-	1,702,291	-	-	1,313,337	\$1,313,337	\$0	
6	1,715,910	-	1,715,910	-	-	1,240,716	\$1,240,716	\$0	
7	1,729,637	-	1,729,637	-	-	1,172,110	\$1,172,110	\$0	
8	1,743,474	-	1,743,474	-	-	1,107,298	\$1,107,298	\$0	
9	1,757,422	-	1,757,422	-	-	1,046,070	\$1,046,070	\$0	
10	1,771,481	-	1,771,481	-	-	988,227	\$988,227	\$0	
11	1,785,653	-	1,785,653	-	-	933,583	\$933,583	\$0	
12	1,799,938	-	1,799,938	-	-	881,960	\$881,960	\$0	
13	1,814,338	-	1,814,338	-	-	833,192	\$833,192	\$0	
14	1,828,853	-	1,828,853	-	-	787,121	\$787,121	\$0	
15	1,843,483	-	1,843,483	-	-	743,597	\$743,597	\$0	
16	1,858,231	-	1,858,231	-	-	702,479	\$702,479	\$0	
17	1,873,097	-	1,873,097	-	-	663,635	\$663,635	\$0	
18	1,888,082	-	1,888,082	-	-	626,940	\$626,940	\$0	
19	1,903,186	-	1,903,186	-	-	592,273	\$592,273	\$0	
20	1,918,412	-	1,918,412	-	-	559,523	\$559,523	\$0	
21	1,933,759	-	1,933,759	-	-	528,584	\$528,584	\$0	
22	1,949,229	-	1,949,229	-	-	499,356	\$499,356	\$0	
23	1,964,823	-	1,964,823	-	-	471,744	\$471,744	\$0	
24	1,980,542	-	1,980,542	-	-	445,659	\$445,659	\$0	
25	1,996,386	-	1,996,386	-	-	421,016	\$421,016	\$0	
26	2,012,357	-	2,012,357	-	-	397,736	\$397,736	\$0	
27	2,028,456	-	2,028,456	-	-	375,743	\$375,743	\$0	
28	2,044,684	-	2,044,684	-	-	354,966	\$354,966	\$0	
29	2,061,041	-	2,061,041	-	-	335,338	\$335,338	\$0	
30	2,077,529	-	2,077,529	-	-	316,796	\$316,796	\$0	
31	2,094,150	-	2,094,150	-	-	299,278	\$299,278	\$0	
32	2,110,903	-	2,110,903	-	-	282,730	\$282,730	\$0	
33	2,127,790	-	2,127,790	-	-	267,096	\$267,096	\$0	
34	2,144,812	-	2,144,812	-	-	252,327	\$252,327	\$0	
35	2,161,971	-	2,161,971	-	-	238,374	\$238,374	\$0	
						SUM \$ 25,747,196	\$ 25,747,196	\$ -	

NPV = (Annual Cost)/(1+(Discount Rate/100))^(Year -1)

Table VI (B)
NET PRESENT VALUE LIFECYCLE COST CALCULATION
(Services)

Assumptions:

Inflation Rate	0.80 %
Discount Rate	6.70 %
Book Life	35 Yrs
Pole Attach Revenue Increase	2.1 %

Underground System						
Yr	(A)	(B)	(C)	(A)+(B)+(C)	(A)+(B)	(C)
	3 Yr Avg Annual Operational Cost (\$)	3 Yr Avg Annual Line Clearance Cost (\$)	Estimated Annual Storm Cost (\$)	NPV Incl Storm (\$)	NPV Excl Storm (\$)	NPV Storm Only (\$)
1	\$ 1,487,567	\$ -	\$ -	\$ 1,487,567	\$ 1,487,567	\$0
2	1,499,468	-	-	1,405,312	1,405,312	\$0
3	1,511,463	-	-	1,327,605	1,327,605	\$0
4	1,523,555	-	-	1,254,194	1,254,194	\$0
5	1,535,743	-	-	1,184,844	1,184,844	\$0
6	1,548,029	-	-	1,119,327	1,119,327	\$0
7	1,560,414	-	-	1,057,434	1,057,434	\$0
8	1,572,897	-	-	998,963	998,963	\$0
9	1,585,480	-	-	943,725	943,725	\$0
10	1,598,164	-	-	891,542	891,542	\$0
11	1,610,949	-	-	842,244	842,244	\$0
12	1,623,837	-	-	795,671	795,671	\$0
13	1,636,828	-	-	751,675	751,675	\$0
14	1,649,922	-	-	710,111	710,111	\$0
15	1,663,122	-	-	670,845	670,845	\$0
16	1,676,427	-	-	633,750	633,750	\$0
17	1,689,838	-	-	598,707	598,707	\$0
18	1,703,357	-	-	565,601	565,601	\$0
19	1,716,984	-	-	534,326	534,326	\$0
20	1,730,719	-	-	504,781	504,781	\$0
21	1,744,565	-	-	476,869	476,869	\$0
22	1,758,522	-	-	450,500	450,500	\$0
23	1,772,590	-	-	425,590	425,590	\$0
24	1,786,771	-	-	402,057	402,057	\$0
25	1,801,065	-	-	379,825	379,825	\$0
26	1,815,473	-	-	358,822	358,822	\$0
27	1,829,997	-	-	338,981	338,981	\$0
28	1,844,637	-	-	320,237	320,237	\$0
29	1,859,394	-	-	302,529	302,529	\$0
30	1,874,269	-	-	285,801	285,801	\$0
31	1,889,263	-	-	269,998	269,998	\$0
32	1,904,378	-	-	255,068	255,068	\$0
33	1,919,613	-	-	240,964	240,964	\$0
34	1,934,969	-	-	227,640	227,640	\$0
35	1,950,449	-	-	215,052	215,052	\$0
			SUM	\$ 23,228,156	\$ 23,228,156	\$ -

Table VII
Net Present Value of Operational Costs
Per Mile & Per Service Calculations

<u>Overhead</u>			
Primary Voltage System	Incl Storm	Excl Storm	Storm Only
NPV Life Cycle Cost	\$1,205,239,461	\$875,981,071	\$329,258,390
System Miles OH	6,246	6,246	6,246
NPV Life Cycle Cost / Mile	\$192,961.81	\$140,246.73	\$52,715.08
Services	Incl Storm	Excl Storm	Storm Only
NPV Life Cycle Cost	\$25,747,196	\$25,747,196	\$0
Number of Services	246,960	246,960	246,960
NPV Life Cycle Cost / Service	\$104.26	\$104.26	\$0.00
<u>Underground</u>			
Primary Voltage System	Incl Storm	Excl Storm	Storm Only
NPV Life Cycle Cost	\$420,529,641	\$418,852,039	\$1,677,603
System Miles OH	5,715	5,715	5,715
NPV Life Cycle Cost / Mile	\$73,583.49	\$73,289.95	\$293.54
Services	Incl Storm	Excl Storm	Storm Only
NPV Life Cycle Cost	\$23,228,156	\$23,228,156	\$0
Number of Services	284,735	284,735	284,735
NPV Life Cycle Cost / Service	\$81.58	\$81.58	\$0.00
<u>Differential</u>			
Primary Voltage System	Incl Storm	Excl Storm	Storm Only
NPV Life Cycle Cost / Mile	-\$119,378.32	-\$66,956.78	-\$52,421.54
Services	Incl Storm	Excl Storm	Storm Only
NPV Life Cycle Cost / Service	-\$22.68	-\$22.68	\$0.00

Table VIII
Net Present Value of Operational Costs
Per Lot Calculations

<u>Low Density Subdivision</u>						
<u>Overhead</u>						
	Number of Lots	Miles of Line	Incl Storm \$ / Lot	Excl Storm \$ / Lot	Storm Only \$ / Lot	
Primary Voltage System ¹	210	1.92	\$1,764.22	\$1,282.26	\$481.97	
Services	NA	NA	\$104.26	\$104.26	\$0.00	
Primary & Service			\$1,868.48	\$1,386.52	\$481.97	
<u>Underground</u>						
Primary Voltage System ¹	210	2.99	\$1,047.69	\$1,043.51	\$4.18	
Services	NA	NA	\$81.58	\$81.58	\$0.00	
Primary & Service			\$1,129.27	\$1,125.09	\$4.18	
Primary & Service			<u>Differential</u>	<u>-\$739.21</u>	<u>-\$261.43</u>	<u>-\$477.79</u>
<u>High Density Subdivision</u>						
<u>Overhead</u>						
	Number of Lots	Miles of Line	Incl Storm \$ / Lot	Excl Storm \$ / Lot	Storm Only \$ / Lot	
Primary Voltage System ¹	176	1.17	\$1,282.76	\$932.32	\$350.44	
Services	NA	NA	\$104.26	\$104.26	\$0.00	
Primary & Service			\$1,387.02	\$1,036.58	\$350.44	
<u>Underground</u>						
Primary Voltage System ¹	176	1.07	\$447.35	\$445.57	\$1.78	
Services	NA	NA	\$81.58	\$81.58	\$0.00	
Primary & Service			\$528.93	\$527.15	\$1.78	
Primary & Service			<u>Differential</u>	<u>-\$858.09</u>	<u>-\$509.43</u>	<u>-\$348.66</u>

Note

1. Formula = (NPV Life Cycle Cost / Mile) x (Miles of Line) / (Number of Lots)

TAMPA ELECTRIC COMPANY
DOCKET NO. 20210064-EI
STAFF'S THIRD DATA REQUEST
REQUEST NO. 3b

Table IX
2020 O&M - FORM 13

	2020 Actual \$	OH Ratio	UG Ratio	2020 Allocated Overhead \$	2020 Allocated Underground \$
Overhead - Blanket Account					
D-CRR-Voltage-OH (NEW)	\$263,090	100.0%	0.0%	\$263,090	\$0
PRE - Dist Line - Fault Indicators	\$13,005	100.0%	0.0%	\$13,005	\$0
Distr - Maint - Corrective - OH Line	\$10,246,537	100.0%	0.0%	\$10,246,537	\$0
Distribution - Maint - OH System Improvements	\$0	100.0%	0.0%	\$0	\$0
Distribution - Maint - Mgmt & Coordination	\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Preventative - OH Line	\$6,448,231	100.0%	0.0%	\$6,448,231	\$0
Distr - Maint - Trouble - OH Storm	\$687,761	100.0%	0.0%	\$687,761	\$0
Distr - Maint - Pole Inspect & Change-Outs	\$11,097,693	100.0%	0.0%	\$11,097,693	\$0
Distr - Maint - Damage Replacement - OH Line	\$2,655,044	100.0%	0.0%	\$2,655,044	\$0
Distr - Maint - Capacitors	\$298,534	100.0%	0.0%	\$298,534	\$0
Distr - Maint - Trouble - Non-Storm	\$0	0.0%	0.0%	\$0	\$0
Distr - Maint - Tree Trimming - Planned	\$0	0.0%	100.0%	\$0	\$0
Distr - Env - Train/Permit/Inspect/Audit/Protect	\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Tree Trimming - Unplanned	\$0	0.0%	0.0%	\$0	\$0
Distr - Maint - Pole Reinforcements	\$434,229	100.0%	0.0%	\$434,229	\$0
Distr - Maint - Pole CLAs & Change-Outs	\$67,705	100.0%	0.0%	\$67,705	\$0
Distr - Maint - Infrared Thermography	\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Services - OH Line	\$966,573	0.0%	0.0%	\$0	\$0
Subtotal	\$33,178,402				
Underground - Blanket Account					
D-CRR-Voltage-UG	\$23,632	0.0%	100.0%	\$0	\$23,632
D-PRE-Transformers-UG	\$2,084,383	0.0%	100.0%	\$0	\$2,084,383
Distr - Maint - Corrective - UG Line	\$10,427,986	0.0%	100.0%	\$0	\$10,427,986
Distribution - Maint - UG System Improvements	\$0	0.0%	100.0%	\$0	\$0
Distribution - Maint - Mgmt & Coordination	\$0	0.0%	100.0%	\$0	\$0
Distr - Maint - Preventative - UG Line	\$9,506,194	0.0%	100.0%	\$0	\$9,506,194
Distr - Maint - Network Corrective	\$33,100	0.0%	100.0%	\$0	\$33,100
Distr - Maint - Network Preventative	\$25,243	0.0%	100.0%	\$0	\$25,243
Distr - Maint - Capacitors - UG	\$53,629	0.0%	100.0%	\$0	\$53,629
Distr - Maint - UG Cable Rplcmnt - Planned	\$2,906,062	0.0%	100.0%	\$0	\$2,906,062
Distr - Maint - Trouble - UG Storm	\$265,878	0.0%	100.0%	\$0	\$265,878
Distr - Maint - Damage Replacement - UG Line	\$1,211,387	0.0%	100.0%	\$0	\$1,211,387
Distr - Maint - UG Cable Rplcmnt - Unplanned	\$0	0.0%	100.0%	\$0	\$0
Distr - Maint - Services - UG Line	\$812,991	0.0%	0.0%	\$0	\$0
Subtotal	\$27,350,485				
Overhead - O&M Account					
D-CRR-Voltage-OH (NEW)	\$45,644	100.0%	0.0%	\$45,644	\$0
Distr - Maint - Corrective - OH Line	\$7,002,950	100.0%	0.0%	\$7,002,950	\$0
Distribution - Maint - OH System Improvements	\$0	100.0%	0.0%	\$0	\$0
Distribution - Maint - Mgmt & Coordination	\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Preventative - OH Line	\$124,407	100.0%	0.0%	\$124,407	\$0
Distr - Maint - Trouble - OH Storm	\$593,755	100.0%	0.0%	\$593,755	\$0
Distr - Maint - Pole Inspect & Change-Outs	\$904,908	100.0%	0.0%	\$904,908	\$0
Distr - Maint - Damage Replacement - OH Line	\$184,081	100.0%	0.0%	\$184,081	\$0
Distr - Maint - Capacitors	\$29,990	100.0%	0.0%	\$29,990	\$0
Distr - Maint - Trouble - Non-Storm	\$2,814,800	0.0%	0.0%	\$0	\$0
CRR - Dist Line - Storms - OH - Restoration	\$0	0.0%	0.0%	\$0	\$0
Distr - Maint - Tree Trimming - Planned	\$16,990,720	0.0%	0.0%	\$0	\$0
Distr - Env - Train/Permit/Inspect/Audit/Protect	\$26,923	100.0%	0.0%	\$26,923	\$0
Distr - Maint - Tree Trimming - Unplanned	\$2,026,699	0.0%	0.0%	\$0	\$0
Distr - Maint - Pole Reinforcements	\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Pole CLAs & Change-Outs	\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Infrared Thermography	\$0	100.0%	0.0%	\$0	\$0
Distr - Maint - Services - OH Line	\$839,741	0.0%	0.0%	\$0	\$0
Subtotal	\$31,584,618				
Underground - O&M Account					
D-PRE-Transformers-UG	\$0	0.0%	100.0%	\$0	\$0
Distr - Maint - Corrective - UG Line	\$1,710,255	0.0%	100.0%	\$0	\$1,710,255
Distribution - Maint - UG System Improvements	\$0	0.0%	100.0%	\$0	\$0
Distribution - Maint - Mgmt & Coordination	\$0	0.0%	100.0%	\$0	\$0
Distr - Maint - Preventative - UG Line	\$220,874	0.0%	100.0%	\$0	\$220,874
Distr - Maint - Network Corrective	\$5,573	0.0%	100.0%	\$0	\$5,573
Distr - Maint - Network Preventative	\$660,604	0.0%	100.0%	\$0	\$660,604
Distr - Locate Facilities	\$948,183	0.0%	100.0%	\$0	\$948,183
Distr - Maint - UG Cable Rplcmnt - Planned	\$23,766	0.0%	100.0%	\$0	\$23,766
Distr - Maint - Trouble - UG Storm	\$19,316	0.0%	100.0%	\$0	\$19,316
D-CRR-Capacitors-UG	\$0	0.0%	100.0%	\$0	\$0
D-CRR-Storms-UG	\$0	0.0%	100.0%	\$0	\$0
Distr - Maint - Damage Replacement - UG Line	\$174,701	0.0%	100.0%	\$0	\$174,701
Distr - Maint - UG Cable Rplcmnt - Unplanned	\$0	0.0%	100.0%	\$0	\$0
Distr - Maint - Services - UG Line	\$712,258	0.0%	0.0%	\$0	\$0
Subtotal	\$4,475,530				
				\$41,124,487	\$30,300,766
Distribution - Maint - Trouble Calls - Non-storm					
Blanket	\$0	77.7%	22.3%	\$0	\$0
O&M	\$2,814,800	77.7%	22.3%	\$2,187,100	\$627,700
Distr - Maint - Tree Trimming - Planned					
Blanket	\$0	96.1%	3.9%	\$0	\$0
O&M	\$16,990,720	96.1%	3.9%	\$16,328,489	\$662,231
Distr - Maint - Tree Trimming - Unplanned					
Blanket	\$0	96.1%	3.9%	\$0	\$0
O&M	\$2,026,699	96.1%	3.9%	\$1,947,706	\$78,993
Distr - Maint - Services - OH Line					
Blanket	\$966,573	100.0%	0.0%	\$966,573	\$0
O&M	\$839,741	100.0%	0.0%	\$839,741	\$0
Distr - Maint - Services - UG Line					
Blanket	\$812,991	0.0%	100.0%	\$0	\$812,991
O&M	\$712,258	0.0%	100.0%	\$0	\$712,258
2020 O&M Cost - Form 13				\$63,394,096	\$33,194,939

ENERGY DELIVERY
"2021" ADDER STUDY
Provided by ED Business Planning

	<u>Toolkit</u>
	Distribution CIAC
Total Corporate Accounting FRINGE Rates per Activity A&G (for PSTEW)	72.62%
Other "Operating Labor" related adders:	
Non-Productive Time*	13.00%
Energy Delivery (Supervisory/Administrative)	15.18%
Energy Delivery Engineering	0.00%
Small Tools *	5.39%
TOTAL Other "Labor" related Adders	33.58%
TOTAL Fully Loaded "Labor" adders	106.20%
Fleet* as a % of Labor (rate of settled labor w/ fringe)	14.81%
Fleet* as a % of Labor (rate excluding 37% fringe)	20.29%
"Material" related adders:	
Stores Carrying Cost (ED Stores Clearing) *	4.30%
Stores Carrying Cost (WH Space, Taxes, Insurance & Obsolete Mat)	4.83%
Stores Carrying Cost (Cost of Money - PDR only)	0.00%
Self Help *	3.09%
TOTAL "Material" related Adders	12.22%
Other "Contractor" related adders:	
Energy Delivery (Supervisory/Administrative/Engineering)	20.06%
TOTAL Fully Loaded "Contractor" adders	20.06%

* When determining final bill true up or calculating pay-after invoice using actual results, exclude these items, which will already be included in actuals