



**IMU BOARD OF TRUSTEES OF THE ELECTRIC,
WATER AND COMMUNICATIONS UTILITIES**

November 12, 2024

5:30 PM

IMU Boardroom

Agenda

- 1. Call to Order**
- 2. Roll Call**
- 3. Public Comment**
- 4. Consent Agenda**
 - A. Approval of Claims
 - B. Approval of Minutes of the prior meetings
 - C. Resolution Approving the Contract, Bond and Insurance for the 69kV Line Relay Replacement Project
 - D. Approval of September Financial Report
- 5. Electric Utility Action Items**
 - A. Resolution to Approve Change Order No. 5 for Turbine 8 Control Replacement Project
- 6. Electric Utility Informational Items**
- 7. Water Utility Action Items**
 - A. Resolution Approving Agreement for engineering design and construction services for the East 3rd Water Main Improvements project
- 8. Water Utility Informational Items**
- 9. Communications Utility Action Items**
 - A. Resolution Approving the Purchase of an Eaton UPS system for the Fiber Department
- 10. Communications Utility Informational Items**
- 11. Combined Electric, Water and Communications Informational Items**
- 12. Other Business**
 - A. Enter into closed session in accordance with Iowa Code Section 21.5 (1)(i) to evaluate the professional competency of an individual whose appointment, hiring, performance, or discharge is being considered when necessary to prevent needless and irreparable injury to that individual's reputation and that individual requests a closed session.

13. Adjourn

MEMORANDUM

To: IMU Board of Trustees of the Electric, Water and Communications Utilities
From:
Date: November 12, 2024
Subject: Approval of Claims

Recommendation:

Attachments: 1. 111224 AP Check Preview

AP Check Preview

Date Range: All Dates

Indianola Municipal Utilities

Wednesday, November 6, 2024
3:13:55 PM

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
Account To Be Paid From 0000-10120-999											
ACCO UNLIMITED CORP. - VEND-2810 - Check											
10/23/2024	ACCO Liquid Chlorinating Solution	Open Terms	2,687.84	0.00	0.00	2,687.84	2,687.84	0247409-IN	BL-14653	Check	
						2,687.84	2,687.84				
Border States Industries Inc - VEND-1070 - EFT File											
12/1/2024	Meter Hubs	Net 30	53.16	0.00	15.00	53.16	53.16	929344388	BL-14727	EFT File	
						53.16	53.16				
BRAND, JUSTIN - VEND-100310 - EFT File											
11/2/2024	1124 Mobile Device Allowance	Open Terms	75.00	0.00	0.00	75.00	75.00	Nov 24	BL-14690	EFT File	
						75.00	75.00				
Brenan Baker - VEND-1411 - EFT File											
12/1/2024	1124 Mobile Device Allowance	Net 30	25.00	0.00	15.00	25.00	25.00	Nov 24	BL-14684	EFT File	
						25.00	25.00				
Calix Inc - VEND-1028 - EFT File											
10/31/2024	1024 Calix Operations Cloud	Net 30	2,640.82	0.00	15.00	2,640.82	2,640.82	7028921	BL-14728	EFT File	
10/31/2024	1024 Calix Service Cloud	Net 30	3,000.55	0.00	15.00	3,000.55	3,000.55	7028922	BL-14730	EFT File	
12/2/2024	1124 Calix Operations Cloud	Net 30	2,660.41	0.00	15.00	2,660.41	2,660.41	7031033	BL-14729	EFT File	
12/2/2024	1124 Calix Service Cloud	Net 30	3,023.82	0.00	15.00	3,023.82	3,023.82	7031034	BL-14731	EFT File	
						11,325.60	11,325.60				
Cedar Falls Utilities - VEND-1045 - Check											
12/4/2024	1024 Labor & Rack Space 28E Agreement (IP	Net 30	5,302.98	0.00	15.00	5,302.98	5,302.98	93766	BL-14732	Check	
						5,302.98	5,302.98				
Cintas Corporation - VEND-1007 - EFT File											
11/27/2024	First Aid Supplies - Fiber	Net 30	153.14	0.00	15.00	153.14	153.14	5236788903	BL-14733	EFT File	
12/1/2024	First Aid Supplies - EL	Net 30	154.63	0.00	15.00	154.63	154.63	8407100545	BL-14734	EFT File	
						307.77	307.77				
City Of Indianola - VEND-1008 - BL-14654											
10/30/2024	Q32024 Franchise Fee	Net 30	15,545.49	0.00	15.00	15,545.49	15,545.49	Q32024	BL-14654	EFT File	
						15,545.49	15,545.49				
City Of Indianola - VEND-1008 - BL-14735											

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
	12/1/2024	1124 Professional Services	Net 30	9,407.91	0.00	15.00	9,407.91	9,407.91	3406	BL-14735	EFT File
							9,407.91	9,407.91			
Daniel OpCo, LLC - VEND-1433 - EFT File											
	11/10/2024	Turbine 8 Water Flow Meter and Calibration	Net 30	11,836.54	0.00	15.00	11,836.54	11,836.54	72	BL-14692	EFT File
	11/20/2024	Turbine 8 Water Flow Meter Gaskets	Net 30	171.55	0.00	15.00	171.55	171.55	I00000002988	BL-14691	EFT File
							12,008.09	12,008.09			
DES PLANQUES, CHRIS - VEND-101766 - EFT File											
	11/2/2024	1124 Mobile Device Allowance	Open Terms	75.00	0.00	0.00	75.00	75.00	Nov 24	BL-14688	EFT File
							75.00	75.00			
DNR - VEND-1167 - Check											
	12/5/2024	Annual Water Use Fee for 2025	Net 30	115.00	0.00	15.00	115.00	115.00	FY 2025	BL-14755	Check
							115.00	115.00			
Doug Pagel - VEND-1283 - EFT File											
	12/1/2024	1124 Mobile Device Allowance	Net 30	75.00	0.00	15.00	75.00	75.00	Nov 24	BL-14689	EFT File
							75.00	75.00			
Doug Shull - VEND-1105 - Check											
	12/1/2024	1124 Treasurer Contract	Net 30	83.34	0.00	15.00	83.34	83.34	Nov 24	BL-14694	Check
							83.34	83.34			
Dylan Michelsen - VEND-1180 - EFT File											
	12/1/2024	1124 Mobile Device Allowance	Net 30	75.00	0.00	15.00	75.00	75.00	Nov 24	BL-14683	EFT File
							75.00	75.00			
Elisha Brown - VEND-1209 - EFT File											
	12/1/2024	1124 Mobile Device Allowance	Net 30	75.00	0.00	15.00	75.00	75.00	Nov 24	BL-14687	EFT File
							75.00	75.00			
Fuse Technic LLC - VEND-1012 - EFT File											
	12/1/2024	Troubleshooting	Net 30	350.00	0.00	15.00	350.00	350.00	FT20241101007	BL-14736	EFT File
							350.00	350.00			
Gregg Young Buick GMC - VEND-1227 - Check											
	11/9/2024	Unit 32 Seat Belt Replacement	Net 30	277.41	0.00	15.00	277.41	277.41	79671	BL-14695	Check

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
							277.41	277.41			
ImOn Communications LLC - VEND-1072 - Check											
11/30/2024	1024 Regulatory & Billing	Net 30	7,668.92	0.00	15.00	7,668.92	7,668.92	INV0033932	BL-14737	Check	
							7,668.92	7,668.92			
IMU - VEND-8629 - Check											
11/2/2024	Utilities - Util Svcs	Open Terms	241.71	0.00	0.00	241.71	241.71	10420004	BL-14738	Check	
11/2/2024	Utilities - EL	Open Terms	2,082.66	0.00	0.00	2,082.66	2,082.66	10418913	BL-14739	Check	
11/2/2024	Utilities - WA	Open Terms	16,179.24	0.00	0.00	16,179.24	16,179.24	10419049	BL-14747	Check	
11/2/2024	Utilities - Fiber	Open Terms	1,422.43	0.00	0.00	1,422.43	1,422.43	10419641	BL-14748	Check	
							19,926.04	19,926.04			
IMWCA - VEND-1130 - Check											
12/1/2024	Premiums - Installment 5	Net 30	2,078.00	0.00	15.00	2,078.00	2,078.00	INV92001	BL-14749	Check	
							2,078.00	2,078.00			
Independent Advocate - VEND-1136 - EFT File											
11/22/2024	BOT Meeting/Publication Report 10.14.24	Net 30	374.65	0.00	15.00	374.65	374.65	5716	BL-14655	EFT File	
11/29/2024	Print & Digital Ad - Oct24	Net 30	500.00	0.00	15.00	500.00	500.00	5772	BL-14750	EFT File	
							874.65	874.65			
Innovative Systems - VEND-1048 - EFT File											
12/1/2024	Nov24 Elation Maint Fee	Net 30	12,761.71	0.00	15.00	12,761.71	12,761.71	INV-21184	BL-14752	EFT File	
12/5/2024	1124 Utility Bills	Net 30	6,941.59	0.00	15.00	6,941.59	6,941.59	INV-21302	BL-14751	EFT File	
							19,703.30	19,703.30			
Internal Revenue Service - VEND-1307 - Online Payments											
11/24/2024	941 Income Tax Payable - 102524 Payroll	Net 30	30,938.85	0.00	15.00	30,938.85	30,938.85	102524 Payroll	BL-14656	Online Payments	
							30,938.85	30,938.85			
Iowa Department Of Human Services - VEND-1310 - Online Payments											
11/24/2024	Garnishment Payable - 102524 Payroll	Net 30	723.23	0.00	15.00	723.23	723.23	102524 Payroll	BL-14658	Online Payments	
							723.23	723.23			
Iowa Department Of Revenue - VEND-1117 - Online Payments											
11/24/2024	IA Income Tax Payable - 102524 Payroll	Net 30	4,861.79	0.00	15.00	4,861.79	4,861.79	102524 Payroll	BL-14662	Online Payments	
11/30/2024	October 24 Use Tax	Net 30	284.20	0.00	15.00	284.20	284.20	Use Tax - 1024	BL-14754	Online Payments	
12/1/2024	Sales Tax Billed 11.1.24	Net 30	53,032.88	0.00	15.00	53,032.88	53,032.88	Sales Tax 11.1.24	BL-14753	Online Payments	

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
							58,178.87	58,178.87			
IOWA RURAL WATER ASSOC - VEND-90245 - Check											
11/3/2024	2024 Community Membership Dues	Open Terms	455.00	0.00	0.00	455.00	455.00	72364	BL-14756	Check	
							455.00	455.00			
Iowa Utilities Commission - VEND-1016 - EFT File											
12/1/2024	IUC/OCA FY24 Assessment - Fiber	Net 30	488.00	0.00	15.00	488.00	488.00	63990	BL-14757	EFT File	
12/1/2024	IUC/OCA FY24 Assessment - EL	Net 30	7,249.00	0.00	15.00	7,249.00	7,249.00	63709	BL-14758	EFT File	
							7,737.00	7,737.00			
IPERS - VEND-1309 - Online Payments											
11/27/2024	IPERS Payable - October 24	Net 30	40,962.56	0.00	15.00	40,962.56	40,962.56	1024 IPERS	BL-14664	Online Payments	
							40,962.56	40,962.56			
Irby - VEND-1259 - EFT File											
11/22/2024	Primary Insulated Caps	Net 30	746.33	0.00	15.00	746.33	746.33	S014038577.002	BL-14760	EFT File	
11/27/2024	Red Locate Paint	Net 30	269.64	0.00	15.00	269.64	269.64	S014096038.001	BL-14759	EFT File	
							1,015.97	1,015.97			
Jet Surge - VEND-1361 - Check											
10/18/2024	Main Line Lime Drain Cleaned	Net 30	2,132.50	0.00	15.00	2,132.50	2,132.50	WO-02473	BL-14761	Check	
							2,132.50	2,132.50			
KNIA/KRLS - VEND-1090 - EFT File											
11/26/2024	1024 :30 Spot Hometown Values	Net 30	691.20	0.00	15.00	691.20	691.20	24100566	BL-14762	EFT File	
11/26/2024	1024 Sports Stream Spot	Net 30	60.72	0.00	15.00	60.72	60.72	24100567	BL-14763	EFT File	
							751.92	751.92			
Kurt Gocken - VEND-1023 - EFT File											
12/1/2024	1124 Mobile Device Allowance	Net 30	75.00	0.00	15.00	75.00	75.00	Nov 24	BL-14680	EFT File	
							75.00	75.00			
Kurt Ripperger - VEND-1025 - EFT File											
12/1/2024	1124 Mobile Device Allowance	Net 30	75.00	0.00	15.00	75.00	75.00	Nov 24	BL-14681	EFT File	
							75.00	75.00			
LONGER, CHRIS - VEND-34025 - EFT File											
11/2/2024	1124 Mobile Device Allowance	Open Terms	75.00	0.00	0.00	75.00	75.00	Nov 24	BL-14685	EFT File	

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
							75.00	75.00			
METCALF, MIKE - VEND-34230 - EFT File											
11/2/2024	1124 Mobile Device Allowance	Open Terms	75.00	0.00	0.00	75.00	75.00	Nov 24	BL-14686	EFT File	
							75.00	75.00			
Microbac Laboratories Inc - VEND-1421 - EFT File											
12/1/2024	Nitrogen	Net 30	39.50	0.00	15.00	39.50	39.50	NT2410879	BL-14764	EFT File	
							39.50	39.50			
Midwest Alarm Services - VEND-1116 - EFT File											
11/17/2024	Turbine 8 Fire System Repairs	Net 30	690.00	0.00	15.00	690.00	690.00	473454	BL-14696	EFT File	
							690.00	690.00			
Mission Square - VEND-1303 - Online Payments											
11/24/2024	457 Payable - 102524 Payroll	Net 30	6,585.67	0.00	15.00	6,585.67	6,585.67	102524 Payroll	BL-14668	Online Payments	
							6,585.67	6,585.67			
MSC - VEND-1250 - Check											
11/29/2024	Gloves, Safety Glasses, Duct Tape	Net 30	475.22	0.00	15.00	475.22	475.22	41694069	BL-14697	Check	
							475.22	475.22			
MUNICIPAL SUPPLY INC - VEND-35810 - Check											
11/1/2024	6' bury hydrant, and 2 - 4" hymax	Open Terms	3,938.60	0.00	0.00	3,938.60	3,938.60	0926028-IN	BL-14765	Check	
							3,938.60	3,938.60			
National Cable Television Cooperative, Inc. - VEND-1095 - EFT File											
11/29/2024	1024 Cable Programming	Net 30	59,260.90	0.00	15.00	59,260.90	59,260.90	24100600	BL-14766	EFT File	
							59,260.90	59,260.90			
NewCom Technologies, Inc - VEND-1091 - EFT File											
11/22/2024	Consulting Services Southern NOFA	Net 30	12,725.00	0.00	15.00	12,725.00	12,725.00	51012	BL-14767	EFT File	
							12,725.00	12,725.00			
Norwalk Ready Mix Concrete, Inc. - VEND-1119 - Check											
11/16/2024	901 E Franklin Pour #2	Net 30	701.50	0.00	15.00	701.50	701.50	357893	BL-14669	Check	
11/17/2024	Square Project Concrete Pourbacks	Net 30	2,291.38	0.00	15.00	2,291.38	2,291.38	357998	BL-14698	Check	
							2,992.88	2,992.88			
Pella Printing Co, Inc - VEND-1062 - Check											

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
	12/1/2024	IMU Payment Envelopes	Net 30	393.07	0.00	15.00	393.07	393.07	68668	BL-14768	Check
	12/1/2024	Door Hangers	Net 30	190.00	0.00	15.00	190.00	190.00	68667	BL-14769	Check
	12/1/2024	Water Meter Change Pads	Net 30	175.00	0.00	15.00	175.00	175.00	68704	BL-14770	Check
							758.07	758.07			
Power & Tel - VEND-1037 - EFT File											
	11/15/2024	FIBER DROP - 500'	Net 30	3,221.75	0.00	15.00	3,221.75	3,221.75	7992262-02	BL-14771	EFT File
	11/15/2024	7 TO 8 PIN UPS POWER CORD	Net 30	190.81	0.00	15.00	190.81	190.81	7995711-00	BL-14772	EFT File
	11/16/2024	7 TO 8 PIN UPS POWER CORD	Net 30	121.36	0.00	15.00	121.36	121.36	7980002-01	BL-14774	EFT File
	11/20/2024	7 TO 8 PIN UPS POWER CORD	Net 30	61.48	0.00	15.00	61.48	61.48	8011034-01	BL-14773	EFT File
							3,595.40	3,595.40			
RESCO - VEND-47234 - Check											
	10/23/2024	Single Phase Transformers	Open Terms	40,352.00	0.00	0.00	40,352.00	40,352.00	3051864	BL-14699	Check
							40,352.00	40,352.00			
Skye McBroom - VEND-1026 - EFT File											
	12/1/2024	1124 Mobile Device Allowance	Net 30	75.00	0.00	15.00	75.00	75.00	Nov 24	BL-14682	EFT File
							75.00	75.00			
STERNQUIST CONST. INC. - VEND-50360 - Check											
	10/29/2024	Square Project - Crushed Concrete	Open Terms	275.82	0.00	0.00	275.82	275.82	3597	BL-14700	Check
							275.82	275.82			
Sunbelt Solomon - VEND-1367 - EFT File											
	11/27/2024	3 Phase Padmount Transformer	Net 30	23,695.15	0.00	15.00	23,695.15	23,695.15	397001	BL-14701	EFT File
							23,695.15	23,695.15			
Terry-Durin Co - VEND-1038 - EFT File											
	11/22/2024	2" and 3" Innerduct	Net 30	9,191.30	0.00	15.00	9,191.30	9,191.30	172330-00	BL-14702	EFT File
							9,191.30	9,191.30			
The Extinguisher Company - VEND-1071 - EFT File											
	11/27/2024	Annual Fire Extinguisher Inspection - Fiber	Net 30	335.71	0.00	15.00	335.71	335.71	001365	BL-14776	EFT File
	11/29/2024	Annual Fire Extinguisher Testing	Net 30	735.89	0.00	15.00	735.89	735.89	001369	BL-14704	EFT File
							1,071.60	1,071.60			
Tifco Industries - VEND-1296 - EFT File											

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
	11/22/2024	Shop Hardware	Net 30	67.25	0.00	15.00	67.25	67.25	72028480	BL-14705	EFT File
							67.25	67.25			
TRINITY CONSULTANTS INC - VEND-102443 - Check											
	10/25/2024	Turbine 8 Emissions	Open Terms	1,923.75	0.00	0.00	1,923.75	1,923.75	1465907	BL-14775	Check
							1,923.75	1,923.75			
TRM DISPOSAL LLC - VEND-101016 - EFT File											
	10/25/2024	1024 Trash	Open Terms	49.00	0.00	0.00	49.00	49.00	33363	BL-14670	EFT File
							49.00	49.00			
TrueNorth Companies LC - VEND-1100 - EFT File											
	11/28/2024	October Safety Meeting	Net 30	686.55	0.00	15.00	686.55	686.55	169397	BL-14706	EFT File
							686.55	686.55			
Unite Private Networks - VEND-1054 - EFT File											
	12/1/2024	Dark Fiber	Net 30	3,706.00	0.00	15.00	3,706.00	3,706.00	SI-24-039259	BL-14777	EFT File
							3,706.00	3,706.00			
United States Treasury - VEND-1138 - Online Payments											
	10/30/2024	Q3-2024 Federal Excise Tax	Net 30	1,491.37	0.00	15.00	1,491.37	1,491.37	Q3-2024	BL-14671	Online Payments
							1,491.37	1,491.37			
UPHDM Occupational Medicine - VEND-1101 - Check											
	11/20/2024	Employee Testing	Net 30	42.00	0.00	15.00	42.00	42.00	244512	BL-14672	Check
	11/27/2024	Employee Testing	Net 30	66.00	0.00	15.00	66.00	66.00	246230	BL-14778	Check
							108.00	108.00			
VAN WERT INC - VEND-101069 - EFT File											
	10/22/2024	2" Water meter	Open Terms	1,434.66	0.00	0.00	1,434.66	1,434.66	81965	BL-14673	EFT File
	10/31/2024	3" water meter	Open Terms	4,109.07	0.00	0.00	4,109.07	4,109.07	81975	BL-14779	EFT File
							5,543.73	5,543.73			
VEENSTRA & KIMM - VEND-57600 - Check											
	10/26/2024	SE Streetscape Water Main Extension	Open Terms	5,300.00	0.00	0.00	5,300.00	5,300.00	285110-4	BL-14781	Check
							5,300.00	5,300.00			
VERMEER SALES & SERVICE - VEND-57608 - Check											
	10/23/2024	Square Project Directional Drill Materials	Open Terms	797.27	0.00	0.00	797.27	797.27	P0822305	BL-14707	Check

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
	11/2/2024	Square Project Directional Drill Materials	Open Terms	1,907.03	0.00	0.00	1,907.03	1,907.03	P0841105	BL-14782	Check
							2,704.30	2,704.30			
VESSCO INC - VEND-57620 - EFT File											
	10/29/2024	Spray Nozzles for Lime Machine	Open Terms	115.00	0.00	0.00	115.00	115.00	095693	BL-14783	EFT File
							115.00	115.00			
Warren County 911 - VEND-1132 - Check											
	11/27/2024	Q32024 E911 Fees	Net 30	2,450.25	0.00	15.00	2,450.25	2,450.25	Q3-2024	BL-14674	Check
							2,450.25	2,450.25			
WASHER SYSTEMS OF IOWA INC - VEND-103291 - Check											
	11/2/2024	Power Washer Repair	Open Terms	112.35	0.00	0.00	112.35	112.35	1018377545	BL-14780	Check
							112.35	112.35			
WESCO - VEND-60220 - EFT File											
	10/23/2024	Arc Flash - Shock Absorbing Lanyard	Open Terms	529.18	0.00	0.00	529.18	529.18	245863	BL-14708	EFT File
	10/23/2024	Vise Type Connectors	Open Terms	392.69	0.00	0.00	392.69	392.69	245865	BL-14709	EFT File
	10/23/2024	High Voltage Tape	Open Terms	147.40	0.00	0.00	147.40	147.40	245866	BL-14710	EFT File
	10/23/2024	FIBER LOCATE PAINT	Open Terms	139.19	0.00	0.00	139.19	139.19	245864	BL-14784	EFT File
	10/25/2024	Button Style Photo Control	Open Terms	116.46	0.00	0.00	116.46	116.46	248922	BL-14712	EFT File
	10/29/2024	Locate Flags	Open Terms	388.73	0.00	0.00	388.73	388.73	252310	BL-14711	EFT File
	10/31/2024	Silicone	Open Terms	89.62	0.00	0.00	89.62	89.62	255501	BL-14713	EFT File
	11/5/2024	1/0 Terminators	Open Terms	1,346.92	0.00	0.00	1,346.92	1,346.92	261923	BL-14785	EFT File
							3,150.19	3,150.19			
Wiegert Disposal Inc - VEND-1081 - EFT File											
	12/1/2024	1024 2-4yd Dumpster - Trash Pickup	Net 30	110.00	0.00	15.00	110.00	110.00	Oct24	BL-14786	EFT File
							110.00	110.00			
Wisconsin Independent Network, LLC - VEND-1067 - EFT File											
	12/1/2024	20 Gb Ethernet Circuit	Net 30	7,383.00	0.00	15.00	7,383.00	7,383.00	WIN028610	BL-14787	EFT File
							7,383.00	7,383.00			

AP Check Preview

Date Range: All Dates

Indianola Municipal Utilities

Wednesday, November 6, 2024
3:13:55 PM

Vendor	Due Date	Notes	Terms	Bill Total	Discount	Interest	Amount Due	Pavment	Invoice Number	Bill Number	Payment Type
Total Payment Count: 68				Totals:			\$451,934.25	\$451,934.25			
Total Check Count: 22				Check Totals:			\$102,118.27	\$102,118.27			
Total EFT File Count: 40				EFT File Totals:			\$210,935.43	\$210,935.43			
Total Online Payments Count: 6				Online Payments Totals:			\$138,880.55	\$138,880.55			
Total Bank Draft Count: 0				Bank Draft Totals:			\$0.00	\$0.00			
Total No Check Count: 0				No Check Totals:			\$0.00	\$0.00			

MEMORANDUM

To: IMU Board of Trustees of the Electric, Water and Communications Utilities
From:
Date: November 12, 2024
Subject: Approval of Minutes of the prior meetings

Recommendation:

Attachments: 1. 10.28.24 Minutes (2)

**IMU BOARD OF TRUSTEES OF THE ELECTRIC,
WATER AND COMMUNICATIONS UTILITIES
October 28, 2024 Minutes**

The Indianola Municipal Utilities Board of Trustees met in regular session at 5:30 PM on October 28, 2024 in the IMU Conference Room. Chairperson Deb White called the meeting to order and on roll call the following members were present: Dom Selgrade, Adam Voigts, Mike Rozga and Deb White. There was no public comment.

Rozga moved to approve the Consent Agenda Voigts seconded it. On roll call, the vote was AYES: White, Rozga, Selgrade and Voigts. NAYS: None. Whereas the Chair declared the motion carried unanimously. The Consent Agenda was as follows:

Approval of Claims

Approval of Minutes of the prior meetings

Resolution 2024-069 Approving Pay App 5 to Miler Electric for the Downtown Underground Conversion Project, South Alley Premise Wiring Project

Resolution 2024-070 Approving Pay App 11 for Turbine 8 Control Replacement Project

Rozga moved to Enter into Public Hearing for the 69kV Line Relay Replacement Project and Selgrade seconded it. On roll call, the vote was AYES: White, Rozga, Voigts and Selgrade. NAYS: None. There was no public comment. Whereas the Chair declared the motion carried unanimously. Rozga moved to Exit Public hearing and Voigts seconded. On Roll, the Vote was AYES: Selgrade, Voigts, White, and Rozga. NAYS: None. Whereas the Chair declared the motion carried unanimously.

Rozga moved to Approve Resolution 2024-071 approving the Plans, Specifications, Form of Contract and Estimate of Cost for the 69kV Line Relay Replacement Project and Selgrade seconded it. On roll call, the vote was AYES: White, Voigts, Rozga and Selgrade. NAYS: None. Whereas the Chair declared the motion carried unanimously.

Rozga moved to Resolution 2024-072 Awarding Contract for 69kV Line Relay Replacement Project and Voigts seconded it. On roll call, the vote was AYES: White, Voigts, Selgrade and Rozga NAYS: None. Whereas the Chair declared the motion carried unanimously.

Selgrade moved to Approve Resolution 2024-073 Approving Change Order #4 Turbine 8 Control Project Rozga seconded it. Rozga inquired about the liability for the costs related to the troubleshooting of the vibration monitoring equipment, and suggested removing that portion of the resolution, and updating the change order. Rozga moved to Approve the Amended Resolution and Selgrade Seconded. On roll call, the vote was AYES: White, Rozga, Voigts and Selgrade. NAYS: None. Whereas the Chair declared the motion carried unanimously.

Electric Superintendent Mike Metcalf shared that there was a primary underground cable failure on Scott Felton last week. Crews have since made a permanent repair and everything is operational at this time. Electric meter testing is being completed and customers are being notified via door hangers. Crews are working on The Square and High School projects. The Electric Transmission and Distribution Inspection and Maintenance Plan will be brought to the November 25th meeting for consideration,

Rozga moved to Approve Resolution 2024-074 Approving Lime Tower Recoating, Filter Media Replacements, and Standby Generator Addition Projects: Engineering Services Selgrade seconded it. It was noted there was a clerical error in the title of the resolution on the agenda, and in the body of the resolution, and that the resolution would be corrected. Water Superintendent Justin Brand offers that this is the original lime tower from 1997. Filter Media Replacements was on next year's budget, however recent failures

require quicker intervention. Discussed the timeline for completion. Engineer Vince Driscoll with Veenstra and Kim discussed the costs, size and performance expectations for the new Standby Generator. On roll call, the vote was AYES: Rozga, Selgrade, Voigts and White. NAYS: None. Whereas the Chair declared the motion carried unanimously.

Rozga moved to Approve Resolution 2024-075 Approving The Final Plans, Specifications, Form of Contract, and Estimated cost for Filter Media Replacement Project Selgrade seconded it. On roll call, the vote was AYES: White, Voigts, Rozga and Selgrade. NAYS: None. Whereas the Chair declared the motion carried unanimously.

Water Superintendent Justin Brand discussed a letter sent last week regarding 9 possible lead/galvanized service lines that will need updated by 2037 per the DNR and 261 unknown lines that will need verified. Letters will be sent to those customers, and IMU staff will be prepared for the incoming questions. When verifying line materials, the Water Dept will also do meter swaps to save time. He shared that Hydrants are being replaced. A group of 7th graders was given a tour of the Water plant this afternoon

Voigts moved to Approve Resolution 2024-076 Authorizing the Purchase of a Server for the Fiber Department, Rozga seconded it. On roll call, the vote was AYES: White, Selgrade, Voigts. Rozga. NAYS: None. Whereas the Chair declared the motion carried unanimously.

Fiber Superintendent Kurt Ripperger shared that their office remodel is done, and they are just moving things back in. Pre-Construction meeting was held with TelCom for the NOFA 7 South and they are still hopeful to finish before cold weather settles in.

Rozga moved to Approve Resolution 2024-077 Approving Policy related to E-Bill Only credit Selgrade seconded it. On roll call, the vote was AYES: White, Voigts, Rozga and Selgrade. NAYS: None. Whereas the Chair declared the motion carried unanimously.

Voigts moved to Approve Resolution 2024-078 Approving IMU Project Share Committee Members Selgrade seconded it. On roll call, the vote was AYES: White, Rozga, Voigts, Selgrade. NAYS: None. Whereas the Chair declared the motion carried unanimously.

Rozga moved to approve Resolution 2024-079 Approving special council to represent Indianola Municipal Utilities ("IMU" or the "Client") in connection with a denial of insurance coverage Selgrade seconded it. On roll call, the vote was AYES: Voigts, White, Rozga and Selgrade. NAYS: None. Whereas the Chair declared the motion carried unanimously.

General Manager Chris DesPlanques presented and IMU Strategic Plan with Board members and staff. Discussion of fiber expansion and marketing with rural addresses.

DesPlanques shares that Sandhills Energy is scheduling delivery of supplies for the solar field. The property purchase continues. IMU is waiting for the landowner's review of the contract and expect to hear back from them mid-November. Possible bad weather may require changes for Trunk or Treat.

Kurt Ripperger shared information gained from the Calix conference that he and Kurt Gocken attended.

The meeting was adjourned at 6:34PM on a motion by Voigts and seconded by Selgrade. Question was called for and on voice vote the Chair declared the motion carried unanimously.

MEMORANDUM

To: IMU Board of Trustees of the Electric, Water and Communications Utilities

From:

Date: November 12, 2024

Subject: Resolution Approving the Contract, Bond and Insurance for the 69kV Line Relay Replacement Project

Recommendation:

Attachments:

1. Res 2024-Approving Contract and Bond and Insurance for the 69kV Line Relay Replacement Project
2. Indianola Municipal Utilities 69kV Line Relay Replacement Contract 2024-11-06

Board Member _____ introduced the following Resolution entitled "RESOLUTION 2024- APPROVING THE CONTRACT, BOND, AND INSURANCE FOR 69KV LINE RELAY REPLACEMENT PROJECT" and moved its adoption. Board Member _____ seconded the motion to adopt. The roll was called, and the vote was:

AYES:

NAYS:

Whereupon, the Chairperson declared the following Resolution duly adopted:

RESOLUTION 2024- APPROVING THE CONTRACT, BOND, AND INSURANCE FOR 69KV LINE RELAY REPLACEMENT PROJECT

BE IT RESOLVED BY THE IMU BOARD OF TRUSTEES
OF THE CITY OF INDIANOLA, STATE OF IOWA:

The IMU General Manager is hereby Authorized to execute a contract with the contractor for the construction of the public improvement, the contract not to be binding on the Board of Trustees until approved by the Board and; that the construction contract and bond executed for the 69kV Line Relay Replacement Project as described in the plans and specifications and which have been signed by the Board Chairperson and Board Secretary on behalf of IMU and proof of insurance coverage be and the same are hereby approved as follows:

Contractor:	Steinmetz Corporation	of	Appleton, WI
	\$ 178,500.00		
Amount of bid:			
	5%		
Bond surety:			
	October 22, 2024		
Date of bond:			
Portion of project:	All labor and materials		

PASSED AND APPROVED this 12th day of November 2024.

Deb White, Chairperson

Monica Thompson, Board Secretary

INDIANOLA MUNICIPAL UTILITIES

EAST IOWA SUBSTATION AND WESTSIDE SUBSTATION 69KV LINE RELAY REPLACEMENT PROJECT

CONTRACT AND SPECIFICATIONS

THIS DOCUMENT
ORIGINALLY ISSUED AND
SEALED BY RICHARD D.
KLINE, PROFESSIONAL
ENGINEER, 10601, ON
11/04/24. THIS MEDIA
SHOULD NOT BE
CONSIDERED A CERTIFIED
DOCUMENT.

INDIANOLA MUNICIPAL UTILITIES



Electric • Network Services • Water

ISSUED FOR SIGNATURES
NOVEMBER 4, 2024

P & E ENGINEERING CO.
POWER SYSTEM ANALYSIS AND DESIGN

NOTICE OF HEARING AND LETTING 69kV LINE RELAY REPLACEMENT PROJECT

Sealed proposals will be received by the Board of Trustees of Indianola Municipal Utilities (IMU), Indianola, Iowa, (Buyer) at the IMU Customer Service Center, 210 W. 2nd Ave., Indianola, Iowa until 2:00 P.M. local time on October 22, 2024 for a project identified as the 69kV LINE RELAY REPLACEMENT PROJECT, and as described in detail in the specifications for the project now on file in the office of the Board Secretary. Proposals will be opened in public session at that time. Proposals will be acted upon by the Board of Trustees at a meeting to be held at the IMU Customer Service Center, 210 W. 2nd Ave., Indianola, Iowa at 5:30 P.M. local time on October 28, 2024, or at such later time and place as may then be fixed. At that time and place a hearing will be held on the proposed plans, specifications, form of contract and estimate of cost for the improvements, and at the hearing any interested person may appear and file objections to the project or to the cost of the improvements.

The contract includes providing materials and performing work necessary to replace, test, and commission relaying on three 69kV line terminals, two at the East Iowa Substation, 1300 E. Iowa Avenue, Indianola, IA and one at the Westside Substation, 11634 R63 Hwy, Indianola, IA.

Each proposal shall be sealed in an envelope marked "69kV LINE RELAY REPLACEMENT PROJECT". Each bid must be accompanied in a separate envelope by a bid bond, certified check or cashier's check drawn on a State of Iowa or federally chartered bank, or a certified share draft on a State of Iowa or federally chartered credit union, in an amount not less than five per cent (5%) of the total value of the Proposal, and made payable to the Buyer as a security that the bidder will enter into a contract for the Work within ten (10) days after the award of the contract to such bidder.

Bidders shall not be permitted to withdraw their bids for a period of sixty (60) days after they are opened.

100% of the amount due the successful bidder will be paid not earlier than 31 days from the final acceptance of the improvements by IMU, subject to the conditions and in accordance with the provisions of Chapter 384 and 573 of the Code of Iowa

Payment to the Contractor for completion of the improvements will be made in cash derived from available cash on hand from revenue and such other sources as may be available to IMU. The City of Indianola shall not incur any general obligation for the Improvements. The contract for the furnishing of the improvements shall not constitute a general obligation of the City of Indianola nor be payable in any manner by taxation.

If the successful bidder fails to execute a contract with IMU for the Improvements, the certified check or cashier's check deposited by the Supplier shall be cashed, or the bid bond declared forfeited, and proceeds retained by IMU as agreed liquidated damages.

Bidders will be required to complete a Bidder Status Form from the Iowa Department of Labor regarding Bidder's resident status within the State of Iowa and to submit that form with the bid. Failure to submit a fully completed Bidder Status Form with the bid may result in the bid being deemed nonresponsive and rejected.

Work is to commence on or about November 14, 2024 and shall be substantially complete not later than March 31, 2025. Work shall be completed and ready for final payment not later than 30 days after substantial completion.

Plans and specifications governing the furnishing of materials have been prepared by P&E Engineering Co., 500 SW 7th Street, Suite 100, Des Moines, Iowa 50309. The plans and specifications, prior proceedings of IMU referring to and defining the improvements and a proposed contract are hereby made a part of this notice by reference. The proposed contracts shall be executed in accordance with them. Copies of the specifications may be obtained from P & E Engineering Co.

By virtue of statutory authority, preference will be given to products and provisions grown and produced within the State of Iowa and Iowa domestic labor.

IMU reserves the right to reject any or all proposals and to waive informalities. Published upon order of the Board of Trustees Indianola Municipal Utilities, Indianola, Iowa.

MONICA THOMPSON
Board Secretary

**INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 00200 – Instructions to Bidders**

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ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office*—The office from which the Bidding Documents are to be issued, and which registers plan holders. The Issuing Office for this project will be P & E Engineering Co., 500 SW 7th St., Suite 100, Des Moines, IA 50309.

ARTICLE 2—BIDDING DOCUMENTS

- 2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Contract for Construction of a Small Project for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.
- 2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.
- 2.03 Bidder may register as a plan holder and obtain complete sets of Bidding Documents in printed or electronic (digital) format (compact disk, USB, or direct transmittal) from the Issuing Office. Bidders may rely that sets of Bidding Documents obtained from the Issuing Office are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.04 Plan rooms (including construction information subscription services, and electronic and virtual plan rooms) may distribute the Bidding Documents, or make them available for examination. Those prospective bidders that obtain an electronic (digital) copy of the Bidding Documents from a plan room are encouraged to register as plan holders from the Issuing Office. Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms, or for a Bidder's failure to obtain Addenda from a plan room.
- 2.05 *Electronic Documents*
- A. Bidding Documents will be made available as Electronic Documents. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf). It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.

- B. The Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.05.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.
- C. After the Contract is awarded, the Owner will provide or direct the Engineer to provide for the use of the Contractor documents that were developed by Engineer as part of the Project design process, as Electronic Documents in native file formats.
 - 1. Electronic Documents that are available in native file format include:
 - a. None
 - 2. Release of such documents will be solely for the convenience of the Contractor. No such document is a Contract Document.
 - 3. The Contractor shall take appropriate measures to verify that any electronic/digital information provided in Electronic Documents is appropriate and adequate for the Contractor's specific purposes.
 - 4. In no case will the Contractor be entitled to additional compensation or time for completion due to any differences between the actual Contract Documents and any related document in native file format.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

- 3.01 Bidders must complete a Bidder Status Form from the Iowa Department of Labor regarding the Contractor's resident status within the State of Iowa and submit that form with the bid. Failure to submit a fully completed Bidder Status Form with the bid may result in the bid being deemed nonresponsive and rejected.
- 3.02 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within five (5) days of Owner's request, Bidder must submit the following information:
 - A. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.
 - B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
 - C. Bidder's state or other contractor license number, if applicable.
 - D. Subcontractor and Supplier qualification information.
 - E. Other required information regarding qualifications.

- 3.03 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.04 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

ARTICLE 4—PRE-BID CONFERENCE

- 4.01 A pre-bid conference will not be held for this project.

ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

5.01 *Site Visit and Testing by Bidders*

- A. Bidder may visit the Site and conduct a thorough visual examination of the Site and adjacent areas.
- B. Bidders visiting the Site are required to arrange their own transportation to the Site.
- C. All access to the Site other than during a regularly scheduled Site Visit must be coordinated through the following Owner contact. Bidder must conduct the required Site visit during normal working hours.

Mr. Nate Edwards
Lead Generation
Indianola Municipal Utilities
515-961-9444 (office)
nedwards@indianolaiowa.gov

- D. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- E. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.

5.02 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions.

5.03 *Other Work at the Site*

- A. Reference is made to Article 4 of the General Requirements for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

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ARTICLE 6—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder’s examination of Project documentation and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.
- B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

ARTICLE 7—INTERPRETATIONS AND ADDENDA

- 7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents via email to Rich Kline at rdkline@peengr.com. Email message must include “Question regarding IMU Line Relay Replacement Project” in the subject line. Confirm the email has been received by calling Rich Kline at 515-989-3083.
- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than seven days prior to the date for opening of Bids may not be answered.
- 7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

ARTICLE 8—BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of **5** percent of Bidder’s maximum Bid price (determined by adding the base bid and all alternates) and in the form prescribed in the NOTICE OF HEARING AND LETTING.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 10 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture will be Owner’s exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the

Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

ARTICLE 9—CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Contract for Construction of a Small Project.

ARTICLE 10—SUBSTITUTE AND “OR EQUAL” ITEMS

- 10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or “or-equal” items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or “or-equal” item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.
- 10.02 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder’s sole risk.

ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.01 The apparent Successful Bidder, and any other Bidder so requested, must submit to Owner a list of the Subcontractors or Suppliers proposed for any portion of the Work within five days after Bid opening:
- 11.02 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute.
- 11.03 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to another Bidder who submits the Bid in the best interests of the project that proposes to use acceptable Subcontractors and Suppliers. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.04 of the Contract for Construction of a Small Project.

ARTICLE 12—PREPARATION OF BID

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
 - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words “No Bid” or “Not Applicable.”
- 12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.
- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Bidder’s name and official address.
- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.
- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.
- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of Bidder’s authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.
- 12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder’s licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such

certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

ARTICLE 13—BASIS OF BID

13.01 *Lump Sum*

- A. Bidders must submit a Bid on a lump sum basis for each item listed in the lump sum section of the Bid Form.

ARTICLE 14—SUBMITTAL OF BID

14.01 The Bidding Documents include one separate unbound copy of the Bid Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security, Bidder Status Form, and the other documents required to be submitted under the terms of Article 2 of the Bid Form. See Paragraph 12.02 for submittal of a Bid from Bid Documents that are received as Electronic Documents

14.02 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid and must be enclosed in a plainly marked package with the Project title, and, if applicable, the designated portion of the Project for which the Bid is submitted, and the name and address of Bidder. This package shall be plainly labeled "BID ENCLOSED."

14.03 The sealed envelope containing the Bid and all required documents must be plainly marked with the notation "BID ENCLOSED".

14.04 The sealed envelope containing the bid security must be plainly marked with the notation "BID SECURITY ENCLOSED".

14.05 A Bid sent by mail shall be addressed to:

Indianola Municipal Utilities
Attn: Ms. Chris Longer
210 West 2nd Avenue
Indianola, IA 50125
515-961-9444

14.06 A bid sent by delivery service or hand delivered shall be delivered to:

Indianola Municipal Utilities
Attn: Ms. Chris Longer
210 West 2nd Avenue
Indianola, IA 50125
515-961-9444

14.07 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

- 15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

ARTICLE 16—OPENING OF BIDS

- 16.01 Bids will be opened at the time and place indicated in the Notice of Hearing and Letting and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

- 18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.
- 18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.
- 18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder whose bid is considered to be in the best interest of the Owner.
- 18.05 *Evaluation of Bids*
 - A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

- B. For the determination of the apparent successful Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
- 18.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 18.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 19—BONDS AND INSURANCE

- 19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.

ARTICLE 20—SIGNING OF CONTRACT FOR CONSTRUCTION OF A SMALL PROJECT

- 20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Contract for Construction of a Small Project along with the other Contract Documents as identified in the Contract for Construction of a Small Project. Within 10 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Contract for Construction of a Small Project and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Contract for Construction of a Small Project to Successful Bidder, together with printed and/or electronic copies of the Contract Documents as stated in Paragraph 2.02 of the Contract for Construction of a Small Project.

ARTICLE 21—SALES AND USE TAXES

- 21.01 Owner is subject to state and local sales and use taxes on materials and equipment to be incorporated in the Work. **SAID TAXES SHALL BE INCLUDED IN THE BID.**

**INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 00410 – Bid Form for Construction Contract**

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders and the Contract for Construction of a Small Project.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

Indianola Municipal Utilities
210 West 2nd Avenue
Indianola, IA 50125

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;
- B. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- C. A completed Bidder Status Form regarding the Contractor's resident status within the State of Iowa. A blank Bidder Status Form follows this Bid Form.

ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

3.01 *Lump Sum Bids*

- A. Bidder (Steinmetz Corporation) will complete the Work in accordance with the Contract Documents for the following lump sum (stipulated) price(s):

1. Lump Sum Price (Single Lump Sum)

Lump Sum Bid Price	\$ 178,500
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ARTICLE 4—TIME OF COMPLETION

4.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Article 4 of the Contract for Construction of a Small Project (Section 00522) on or before the dates or within the number of calendar days indicated in the Contract.

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**INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 00410 – Bid Form for Construction Contract**

ARTICLE 5—BIDDER’S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 *Bid Acceptance Period*

- A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 6—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Bidder’s Representations*

- A. In submitting this Bid, Bidder represents the following:
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
 2. If necessary, Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder’s (Contractor’s) safety precautions and programs.
 5. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 00410 – Bid Form for Construction Contract

6. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
7. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
8. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
9. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 Bidder's Certifications

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 6.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 - c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
 - d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 00410 – Bid Form for Construction Contract

BIDDER hereby submits this Bid as set forth above:

Bidder:

Steinmetz Corporation

(typed or printed name of organization)

By:

Scott Steinmetz

(individual's signature)

Name:

Scott Steinmetz

(typed or printed)

Title:

President

(typed or printed)

Date:

10/18/24

(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

Address for giving notices:

2224 W. Pershing St.
Appleton, WI 54914

Bidder's Contact:

Name:

Scott Steinmetz

(typed or printed)

Title:

President

(typed or printed)

Phone:

(920) 734-9699

Email:

scott@steinmetzcorp.com

Address:

Steinmetz Corporation

2224 W. Pershing St.

Appleton, WI 54914

Bidder's Contractor License No.: (if applicable)

Bidder Status Form

To be completed by all bidders

Part A

Please answer "Yes" or "No" for each of the following:

- ☒ Yes ☐ No My company is authorized to transact business in Iowa.
(To help you determine if your company is authorized, please review the worksheet on the next page).
- ☐ Yes ☒ No My company has an office to transact business in Iowa.
- ☐ Yes ☒ No My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.
- ☒ Yes ☐ No My company has been conducting business in Iowa for at least 3 years prior to the first request for bids on this project.
- ☒ Yes ☐ No My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.

If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.

If you answered "No" to one or more questions above, your company is a nonresident bidder. Please complete Parts C and D of this form.

To be completed by resident bidders

Part B

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: ____/____/____ to ____/____/____ Address: _____

City, State, Zip: _____

Dates: ____/____/____ to ____/____/____ Address: _____

City, State, Zip: _____

Dates: ____/____/____ to ____/____/____ Address: _____

You may attach additional sheet(s) if needed.

City, State, Zip: _____

To be completed by non-resident bidders

Part C

1. Name of home state or foreign country reported to the Iowa Secretary of State:

Wisconsin

2. Does your company's home state or foreign country offer preferences to resident bidders, resident labor force preferences or any other type of preference to bidders or laborers?

☐ Yes ☒ No

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

You may attach additional sheet(s) if needed.

To be completed by all bidders

Part D

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm Name: Steinmetz Corporation

Signature: Scott Steinmetz Date: 10/18/24

You must submit the completed form to the governmental body requesting bids per 875 Iowa Administrative Code Chapter 156. This form has been approved by the Iowa Labor Commissioner.

Worksheet: Authorization to Transact Business

This worksheet may be used to help complete Part A of the Resident Bidder Status form. If at least one of the following describes your business, you are authorized to transact business in Iowa.

- ☐ Yes ☒ No My business is currently registered as a contractor with the Iowa Division of Labor.
- ☐ Yes ☒ No My business is a sole proprietorship and I am an Iowa resident for Iowa income tax purposes.
- ☐ Yes ☒ No My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.
- ☐ Yes ☒ No My business is an active corporation with the Iowa Secretary of State and has paid all fees required by the Secretary of State, has filed its most recent biennial report, and has not filed articles of dissolution.
- ☒ Yes ☐ No My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa secretary of state, has filed its most recent biennial report with the secretary of state, and has neither received a certificate of withdrawal from the secretary of state nor had its authority revoked.
- ☐ Yes ☒ No My business is a limited liability partnership which has filed a statement of qualification in this state and the statement has not been canceled.
- ☐ Yes ☒ No My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed.
- ☐ Yes ☒ No My business is a limited partnership or limited liability limited partnership which has filed a certificate of limited partnership in this state, and has not filed a statement of termination.
- ☐ Yes ☒ No My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.
- ☐ Yes ☒ No My business is a limited liability company whose certificate of organization is filed in Iowa and has not filed a statement of termination.
- ☐ Yes ☒ No My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa and the certificate has not been revoked or canceled.

CONTRACT FOR CONSTRUCTION OF A SMALL PROJECT

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This Contract is by and between INDIANOLA MUNICIPAL UTILITIES (Owner) and
STEINMETZ CORPORATION (Contractor).

Owner and Contractor hereby agree as follows:

ARTICLE 1 - THE WORK

1.01 Work

- A. Work includes all labor, materials, equipment, services, and documentation necessary to construct the Project defined herein. The Work may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
- B. The Contractor shall complete all Work as specified or indicated in the Contract Documents. The Project is generally described as follows:
 - 1. **69KV LINE RELAY REPLACEMENT PROJECT** which includes providing materials and labor to replace relays and devices at the East Iowa Substation and the Westside Substation, including device installation, wiring, relay and SCADA system testing, making incidental changes to relay, meter, and RTAC data concentrator settings, providing serial extender settings, and testing and commissioning of the protection and SCADA systems.
 - 2. The Site of the Work includes property, easements, and designated work areas described in greater detail in the Contract Documents but generally located at the Indianola Municipal Utilities East Iowa Substation and Westside Substation.

ARTICLE 2 - CONTRACT DOCUMENTS

2.01 Intent of Contract Documents

- A. It is the intent of the Contract Documents to describe a functionally complete project. The Contract Documents do not indicate or describe all the Work required to complete the Project. Additional details required for the correct installation of selected products are to be provided by the Contractor and coordinated with the Owner and Engineer. This Contract supersedes prior negotiations, representations, and agreements, whether written or oral. The Contract Documents are complementary; what is required by one part of the Contract Documents is as binding as if required by other parts of the Contract Documents.
- B. During the performance of the Work and until final payment, Contractor and Owner shall submit all matters in question concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents to the Engineer.

Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

- C. Engineer will render a written clarification, interpretation, or decision on the issue submitted, or initiate a modification to the Contract Documents.
- D. Contractor, and its subcontractors and suppliers, shall not have or acquire any title to or ownership rights to any of the Drawings, Specifications, or other documents (including copies or electronic media editions) prepared by Engineer or its consultants.

2.02 Contract Documents Defined

A. The Contract Documents consist of the following documents:

- 1. This Contract.
- 2. Performance bond.
- 3. Payment bond.
- 4. Specifications listed in the Table of Contents.
- 5. Appendices listed in the Table of Contents.
- 6. Drawings as listed on the Drawing Sheet Indexes.
- 7. Addenda.
- 8. Exhibits to this Contract (enumerated as follows):
 - a. Contractor Bid.
 - b. Bidder Status Form.
- 9. The following which may be delivered or issued on or after the Effective Date of the Contract:
 - a. Work Change Directives (EJCDC C-940).
 - b. Change Orders (EJCDC C-941).
 - c. Field Orders.

ARTICLE 3 - ENGINEER

3.01 Engineer

- A. The Engineer for this Project is P&E Engineering Co. with offices at 500 SW 7th Street Suite 100, Des Moines, IA 50309.

ARTICLE 4 - CONTRACT TIMES

4.01 Contract Times

- A. The Work will be substantially completed on or before March 31, 2025 and completed and ready for final payment on or before April 30, 2025.

4.02 Liquidated Damages

- A. Liquidated damages will not be assessed.

4.03 Delays in Contractor's Progress

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor or their subcontractors or suppliers.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times.
- D. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor or Contractor's subcontractors or suppliers.

4.04 Progress Schedules

- A. Contractor shall develop a progress schedule and submit to the Engineer for review and comment before starting Work on the Site. The Contractor shall modify the schedule in accordance with the comments provided by the Engineer.
- B. The Contractor shall update and submit the progress schedule to the Engineer each month. The Owner may withhold payment if the Contractor fails to submit the schedule.

ARTICLE 5 - CONTRACT PRICE

5.01 Payment

- A. Owner shall pay Contractor in accordance with the Contract Documents, the lump sum amount of \$178,500.00 for all Work.

ARTICLE 6 - BONDS AND INSURANCE

6.01 Bonds

- A. Before starting Work, Contractor shall furnish a performance bond and a payment bond from surety companies that are duly licensed or authorized to issue bonds in the required amounts in the jurisdiction in which the Project is located. Each bond shall be in an amount equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until the completion of the correction period specified in Paragraph 7.12 but, in any case, not less than one year after the date when final payment becomes due.

6.02 Insurance

- A. Before starting Work, Contractor shall furnish evidence of insurance from companies that are duly licensed or authorized in the jurisdiction in which the Project is located with a

minimum AM Best rating of A-VII or better. Contractor shall provide insurance in accordance with the following:

1. Contractor shall provide coverage for not less than the following amounts, or greater where required by Laws and Regulations:

- a. Workers' Compensation:

State:	<u>Statutory</u>
Employer's Liability:	
Bodily Injury, each Accident	\$ <u>1,000,000</u>
Bodily Injury By Disease, each Employee	\$ <u>1,000,000</u>
Bodily Injury/Disease Aggregate	\$ <u>1,000,000</u>

- b. Commercial General Liability:

General Aggregate	\$ <u>2,000,000</u>
Products - Completed Operations Aggregate	\$ <u>2,000,000</u>
Personal and Advertising Injury	\$ <u>1,000,000</u>
Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000</u>

- c. Automobile Liability herein:

Bodily Injury:	
Each Person	\$ <u>500,000</u>
Each Accident	\$ <u>1,000,000</u>
Property Damage:	
Each Accident	\$ <u>500,000</u>
Combined Single Limit of:	\$ <u>1,000,000</u>

- d. Excess or Umbrella Liability:

Per Occurrence	\$ <u>3,000,000</u>
General Aggregate	\$ <u>3,000,000</u>

- e. Contractor's Pollution Liability:

Each Occurrence	\$ <u>1,000,000</u>
General Aggregate	\$ <u>1,000,000</u>

- B. All insurance policies required to be purchased and maintained will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the insured and additional insured.
 - C. Automobile liability insurance provided by Contractor shall provide coverage against claims for damages because of bodily injury or death of any person or property damage arising out

of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

- D. Contractor's commercial general liability policy shall be written on a 1996 or later ISO commercial general liability occurrence form and include the following coverages and endorsements:
 - 1. Products and completed operations coverage maintained for three years after final payment;
 - 2. Blanket contractual liability coverage to the extent permitted by law;
 - 3. Broad form property damage coverage; and
 - 4. Severability of interest; underground, explosion, and collapse coverage; personal injury coverage.
- E. The Contractor's commercial general liability and automobile liability, umbrella or excess, and pollution liability policies shall include and list Owner and Engineer and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each as additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis.
 - 1. Additional insured endorsements will include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
 - 2. Contractor shall provide ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent for design professional additional insureds.
- F. Umbrella or excess liability insurance shall be written over the underlying employer's liability, commercial general liability, and automobile liability insurance. Subject to industry-standard exclusions, the coverage afforded shall be procured on a "follow the form" basis as to each of the underlying policies. Contractor may demonstrate to Owner that Contractor has met the combined limits of insurance (underlying policy plus applicable umbrella) specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policies and an umbrella or excess liability policy.
- G. The Contractor shall provide property insurance covering physical loss or damage during construction to structures, materials, fixtures, and equipment, including those materials, fixtures, or equipment in storage or transit.
- H. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 15.

ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

7.01 Supervision and Superintendence

- A. Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, safety, and procedures of construction.
- B. Contractor shall assign a competent resident superintendent who is to be present at all times during the execution of the Work. This resident superintendent shall not be replaced without written notice to and approval by the Owner and Engineer except under extraordinary circumstances.
- C. Contractor shall at all times maintain good discipline and order at the Site.
- D. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday.

7.02 Other Work at the Site

- A. In addition to and apart from the Work of the Contractor, other work may occur at or adjacent to the Site. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

7.03 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be new, of good quality and shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable supplier, except as otherwise may be provided in the Contract Documents.

7.04 Subcontractors and Suppliers

- A. Contractor may retain subcontractors and suppliers for the performance of parts of the Work. Such subcontractors and suppliers must be acceptable to Owner.

7.05 Quality Management

- A. Contractor is fully responsible for managing quality to ensure Work is completed in accordance with the Contract Documents.

7.06 Licenses, Fees and Permits

- A. Contractor shall pay all license fees and royalties and assume all costs incident to performing the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others.

- B. Contractor shall obtain and pay for all construction permits and licenses unless otherwise provided in the Contract Documents.

7.07 Laws and Regulations; Taxes

- A. Contractor shall give all notices required by and shall comply with all local, state, and federal Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages if Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations.
- C. Contractor shall pay all applicable sales, consumer, use, and other similar taxes Contractor is required to pay in accordance with Laws and Regulations.

7.08 Record Documents

- A. Contractor shall maintain one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved shop drawings in a safe place at the Site. Contractor shall annotate them to show changes made during construction. Contractor shall deliver these record documents to Engineer upon completion of the Work.

7.09 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work.
- B. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. All persons on the Site or who may be affected by the Work;
 - 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.
- C. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, or anyone for whose acts the Contractor may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Contract Documents or to the acts or omissions of Owner or Engineer and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor).
- D. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

- E. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor shall act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.10 Shop Drawings, Samples, and Other Submittals

- A. Contractor shall review and coordinate the shop drawing and samples with the requirements of the Work and the Contract Documents and shall verify all related field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information.
- B. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
- C. With each submittal, Contractor shall give Engineer specific written notice, in a communication separate from the submittal, of any variations that the shop drawing or sample may have from the requirements of the Contract Documents.
- D. Engineer will provide timely review of shop drawings and samples.
- E. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs.
- F. Engineer's review and approval of a separate item does not indicate approval of the assembly in which the item functions.
- G. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of shop drawings and submit, as required, new samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
- H. Shop drawings are not Contract Documents.

7.11 Warranties and Guarantees

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

7.12 Correction Period

- A. If within one year after the date of substantial completion, any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly and without cost to Owner, correct such defective Work.

7.13 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any subcontractor, any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts they may be liable.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 Owner's Responsibilities

- A. Except as otherwise provided in the Contract Documents, Owner shall issue all communications directly to Contractor. Engineer will be responsive to questions from Owner and Contractor.
- B. Owner shall make payments to Contractor as provided in this Contract.
- C. Owner shall provide Site and easements required to construct the Project.
- D. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, unless stated elsewhere in the Contract Documents, Owner shall have sole authority and responsibility for such coordination.
- E. The Owner shall be responsible for performing inspections and tests required by applicable codes.
- F. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- G. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- H. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 Engineer's Status

- A. Engineer will be Owner's representative during construction. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in this Contract.

- B. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any subcontractor, any supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- C. Engineer will make visits to the Site at intervals appropriate to the various stages of construction. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work.
- D. Engineer has the authority to reject Work if Contractor fails to perform Work in accordance with the Contract Documents.
- E. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work.
- F. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

ARTICLE 10 - CHANGES IN THE WORK

10.01 Authority to Change the Work

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work.

10.02 Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in the Work which are: (a) ordered by Owner or (b) agreed to by the parties or (c) resulting from the Engineer's decision, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 - 3. Changes in the Contract Price or Contract Times or other changes which embody the substance of any final binding results under Article 12.
- B. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 11 - DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

11.01 Differing Conditions Process

- A. If Contractor believes that any subsurface or physical condition including but not limited to utilities or other underground facilities that are uncovered or revealed at the Site either differs materially from that shown or indicated in the Contract Documents or is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.
- B. After receipt of written notice, Engineer will promptly:
 - 1. Review the subsurface or physical condition in question;
 - 2. Determine necessity for Owner obtaining additional exploration or tests with respect to the condition;
 - 3. Determine whether the condition falls within the differing site condition as stated herein;
 - 4. Obtain any pertinent cost or schedule information from Contractor;
 - 5. Prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and
 - 6. Advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

ARTICLE 12 - CLAIMS AND DISPUTE RESOLUTION

12.01 Claims Process

- A. The party submitting a claim shall deliver it directly to the other party to the Contract and the Engineer promptly (but in no event later than 10 days) after the start of the event giving rise thereto.
- B. The party receiving a claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the claim through the exchange of information and direct negotiations. All actions taken on a claim shall be stated in writing and submitted to the other party.

- C. If efforts to resolve a claim are not successful, the party receiving the claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the claim within 45 days, the claim is deemed denied.
- D. If the dispute is not resolved to the satisfaction of the parties, Owner or Contractor shall give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction unless the Owner and Contractor both agree to an alternative dispute resolution process.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION OF DEFECTIVE WORK

13.01 Tests and Inspections

- A. Owner and Engineer will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access.
- B. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests. Testing and commissioning services will be provided by Contractor as part of the Work.
- C. If any Work that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense.

13.02 Defective Work

- A. Contractor shall ensure that the Work is not defective.
- B. Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. The Contractor shall promptly correct all such defective Work.
- E. When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. If the Work is defective or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

ARTICLE 14 - PAYMENTS TO CONTRACTOR

14.01 Progress Payments

- A. The Contractor shall prepare a schedule of values that will serve as the basis for progress payments. The schedule of values will be in a form of application for payment acceptable to Engineer. The unit price breakdown submitted with the bid will be used for unit price work. Break lump sum items into units that will allow for measurement of Work in progress.

14.02 Applications for Payments:

- A. Contractor shall submit an application for payment in a form acceptable to the Engineer, no more frequently than monthly, to Engineer. Applications for payment will be prepared and signed by Contractor. Contractor shall provide supporting documentation required by the Contract Documents. Payment will be paid for Work completed and materials stored on Owner premises as of the date of the application for payment.
- B. Beginning with the second application for payment, each application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior applications for payment.

14.03 Retainage

- A. The Owner shall retain 5% of each progress payment until the Work is substantially complete.

14.04 Review of Applications

- A. Within 10 days after receipt of each application for payment, the Engineer will either indicate in writing a recommendation for payment and present the application for payment to Owner or return the application for payment to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. The Contractor will make the necessary corrections and resubmit the application for payment.
- B. Engineer will recommend reductions in payment (set-offs) which, in the opinion of the Engineer, are necessary to protect Owner from loss because the Work is defective and requires correction or replacement.
- C. The Owner is entitled to impose set-offs against payment based on any claims that have been made against Owner on account of Contractor's conduct in the performance of the Work, incurred costs, losses, or damages on account of Contractor's conduct in the performance of the Work, or liquidated damages that have accrued as a result of Contractor's failure to complete the Work.

14.05 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

14.06 Substantial Completion

- A. The Contractor shall notify Owner and Engineer in writing that the Work is substantially complete and request the Engineer issue a certificate of substantial completion when Contractor considers the Work ready for its intended use. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Engineer will make an inspection of the Work with the Owner and Contractor to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor and Owner in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete or upon resolution of all reasons for non-issuance of a certificate identified in 14.06.B, Engineer will deliver to Owner a certificate

of substantial completion which shall fix the date of substantial completion and include a punch list of items to be completed or corrected before final payment.

14.07 Final Inspection

- A. Upon written notice from Contractor that the entire Work is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.08 Final Payment

- A. Contractor may make application for final payment after Contractor has satisfactorily completed all Work defined in the Contract, including providing all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents and other documents.
- B. The final application for payment shall be accompanied (except as previously delivered) by:
 - 1. All documentation called for in the Contract Documents;
 - 2. Consent of the surety to final payment;
 - 3. Satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any liens or other title defects, or will so pass upon final payment;
 - 4. A list of all disputes that Contractor believes are unsettled; and
 - 5. Complete and legally effective releases or waivers (satisfactory to Owner) of all lien rights arising out of the Work, and of liens filed in connection with the Work.
- C. The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

14.09 Waiver of Claims

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 60 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension.

15.02 Owner May Terminate for Cause

- A. Contractor's failure to perform the Work in accordance with the Contract Documents or other failure to comply with a material term of the Contract Documents will constitute a default by Contractor and justify termination for cause.
- B. If Contractor defaults in its obligations, then after giving Contractor and any surety ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. Declare Contractor to be in default, and give Contractor and any surety notice that the Contract is terminated; and
 - 2. Enforce the rights available to Owner under any applicable performance bond.
- C. Owner may not proceed with termination of the Contract under Paragraph 15.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- D. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- E. In the case of a termination for cause, if the cost to complete the Work, including related claims, costs, losses, and damages, exceeds the unpaid contract balance, Contractor shall pay the difference to Owner.

15.03 Owner May Terminate for Convenience

- A. Upon seven days written notice to Contractor, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for, without duplication of any items:
 - 1. Completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. Other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner, and provided Owner does not remedy such

suspension or failure within that time, either stop the Work until payment is received, or terminate the Contract and recover payment from the Owner.

ARTICLE 16 - CONTRACTOR'S REPRESENTATIONS

16.01 Contractor Representations

A. Contractor makes the following representations when entering into this Contract:

1. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on:
 - a. The cost, progress, and performance of the Work;
 - b. The means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and
 - c. Contractor's safety precautions and programs.
5. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
6. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
7. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
8. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
9. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that, without exception, all prices in the Contract are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 17 - MISCELLANEOUS

17.01 Cumulative Remedies

- A. The duties and obligations imposed by this Contract and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.02 Limitation of Damages

- A. Neither Owner, Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

17.03 No Waiver

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

17.04 Survival of Obligations

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract.

17.06 Controlling Law

- A. This Contract is to be governed by the law of the state in which the Project is located.

IN WITNESS WHEREOF, Owner and Contractor have signed this Contract.

This Contract will be effective on _____ (which is the Effective Date of the Contract).

OWNER: INDIANOLA MUNICIPAL UTILITIES

CONTRACTOR: THE STEINMETZ CORPORATION

By: _____

Title: _____

Attest: _____

Title: _____

Address for giving notices:

210 WEST 2ND AVE

INDIANOLA, IA 50125

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Contract.)

By: Scott Steinhilber

Title: President

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: Cheryl Kugler

Title: Office Manager

Address for giving notices:

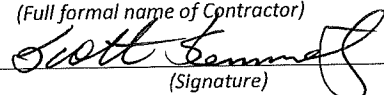
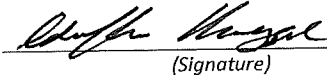
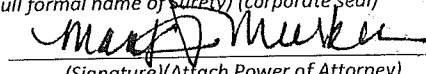
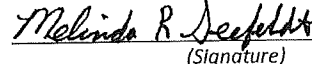
2224 W PERSHING ST

APPLETON, WI 54914-6070

License No.: _____
(where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

PERFORMANCE BOND

Contractor Name: Steinmetz Corporation Address (principal place of business): 2224 W Pershing St, Appleton, WI 54914-6070	Surety Name: West Bend Mutual Insurance Company Address (principal place of business): 1900 South 18th Avenue West Bend, WI 53095
Owner Name: Indianola Municipal Utilities Mailing address (principal place of business): 210 W 2nd Ave Indianola, IA 50125-2442	Contract Description (name and location): EAST IOWA SUBSTATION AND WESTSIDE SUBSTATION 69KV LINE RELAY REPLACEMENT PROJECT Contract Price: \$ 178,500.00 Effective Date of Contract: 11/12/2024
Bond Bond Amount: \$ 178,500.00 Date of Bond: 11/05/2024 <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: ☒ None ☐ See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal Steinmetz Corporation <i>(Full formal name of Contractor)</i> By: <u></u> <i>(Signature)</i> Name: <u>Scott Steinmetz</u> <i>(Printed or typed)</i> Title: <u>President</u> Attest: <u></u> <i>(Signature)</i> Name: <u>Griffin Knigge</u> <i>(Printed or typed)</i> Title: _____	Surety West Bend Mutual Insurance Company <i>(Full formal name of Surety) (corporate seal)</i> By: <u></u> <i>(Signature) (Attach Power of Attorney)</i> Name: <u>MARY MURKEN</u> <i>(Printed or typed)</i> Title: <u>Attorney-In-Fact</u> Attest: <u></u> <i>(Signature)</i> Name: <u>Melinda R Seefeldt</u> <i>(Printed or typed)</i> Title: _____
Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.	

EJCDC® C-610, Performance Bond.

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1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
 - 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

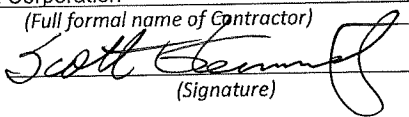
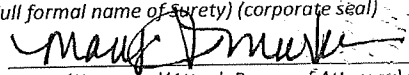
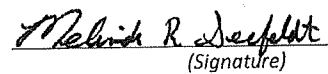
- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
 - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
- 6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
- 7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
 - 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
 - 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
- 9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
- 10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
- 12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
- 13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

- 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
 - 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
 - 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
 - 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows: **[Describe modification or enter “None”]**

PAYMENT BOND

Contractor Name: Steinmetz Corporation Address (principal place of business): 2224 W Pershing St, Appleton, WI 54914-6070	Surety Name: West Bend Mutual Insurance Company Address (principal place of business): 1900 South 18th Avenue West Bend, WI 53095
Owner Name: Indianola Municipal Utilities Mailing address (principal place of business): 210 W 2nd Ave Indianola, IA 50125-2442	Contract Description (name and location): EAST IOWA SUBSTATION AND WESTSIDE SUBSTATION 69KV LINE RELAY REPLACEMENT PROJECT Contract Price: \$ 178,500.00 Effective Date of Contract: 11/12/2024
Bond Bond Amount: \$ 178,500.00 Date of Bond: 11/05/2024 <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: ☒ None ☐ See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal Steinmetz Corporation <i>(Full formal name of Contractor)</i> By:  <i>(Signature)</i> Name: <u>Scott Steinmetz</u> <i>(Printed or typed)</i> Title: <u>President</u> Attest: _____ <i>(Signature)</i> Name: _____ <i>(Printed or typed)</i> Title: _____	Surety West Bend Mutual Insurance Company <i>(Full formal name of Surety) (corporate seal)</i> By:  <i>(Signature) (Attach Power of Attorney)</i> Name: <u>MARY MURKEN</u> <i>(Printed or typed)</i> Title: <u>Attorney-In-Fact</u> Attest:  <i>(Signature)</i> Name: <u>Melinda R Seefeldt</u> <i>(Printed or typed)</i> Title: _____
Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.	

EJCDC® C-615, Payment Bond.

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1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
 - 5.1. Claimants who do not have a direct contract with the Contractor
 - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2. Pay or arrange for payment of any undisputed amounts.
 - 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. Definitions
 - 16.1. *Claim*—A written statement by the Claimant including at a minimum:
 - 16.1.1. The name of the Claimant;
 - 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
 - 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 - 16.1.4. A brief description of the labor, materials, or equipment furnished;

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 - 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 - 16.1.7. The total amount of previous payments received by the Claimant; and
 - 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic’s lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of “labor, materials, or equipment” that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor’s subcontractors, and all other items for which a mechanic’s lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
18. Modifications to this Bond are as follows: **NONE**

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 01000 – General Requirements

1.0 PROJECT DESCRIPTION

- 1.1 The Project includes replacing existing 69kV line relays and panel meters, installation of a serial port extender, addition of a digital output card and terminal blocks to an RTU, including panel wiring additions and removals at two substations within the City of Indianola, Iowa, including furnishing materials, labor, tools, equipment, supervision, and other items necessary to complete the entire project defined in these bid documents.
- 1.2 In addition to replacing relays and meters, the Project includes testing necessary to assure correct operation of the new relays, protection schemes, and new meters, verifying that that scanned points are correctly provided to the SCADA system data concentrator, that control points operate correctly, that analog outputs from meters are received correctly by the MidAmerican Energy RTU at East Iowa, and making minor changes to SEL relay and digital panel meter settings.

2.0 SCOPE OF WORK

- 2.1 The drawings, bill of materials, and specifications listed in the Index in Section 00000 are intended to cover all materials, equipment, and work necessary to complete this project as described, except for those items that are specifically listed as being supplied or completed by Owner or by others, and except for certain locations where wiring diagrams are not complete. These locations are explained in more detail below.
- 2.2 Work generally consists of the following major items of work but is not limited to the items listed below. Refer to drawings for each substation for plans and details and definition of the work to the extent possible.
- a. Contractor shall schedule preconstruction meeting within two weeks after receiving Notice to Proceed. Meeting will be held at Indianola Municipal Utilities. A virtual preconstruction meeting will not be acceptable.
 - b. Furnish labor and materials as required.
 - c. At East Iowa Substation:
 - 1) Retap three sets of CTs in each circuit breaker CKX611 and CKX612
 - 2) Reconnect control circuit cabling in circuit breakers CKX611 and CKX612
 - 3) Preschedule outage of the 69kV Bus
 - 4) Revise secondary connections and add jumpers in three 69kV bus PTs
 - 5) Provide and install a fuseblock and rewire bus PT connections in existing PT junction box
 - 6) Extend buried 2-inch conduit from grade level into existing PT junction box and from grade level through the building wall and into the cable trench in the East Iowa control building, including installing rigid conduit from ground level to PT junction box and PVC LBs and PVC conduit to pass through building wall above grade. Buried conduit will be installed by Owner.

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 01000 – General Requirements

- 7) Provide and install a control cable to carry Y-winding potentials from the PT junction box to Relay Panel 1 in the control enclosure.
- 8) In relay panel 2, relocate existing red and green CKX213 breaker status indicating lamps 2-1/2" to the right (in front view) to provide room for new equipment mounting panel
- 9) Remove one existing SEL-121G relay and one existing SEL-DTA from each relay panel
- 10) Remove one existing SEL-501 relay from Relay Panel 1
- 11) Remove existing electromechanical line relays from each relay panel as shown in the drawings
- 12) Provide and install two equipment mounting panels on each relay panel
- 13) Provide and install four SEL-411L relays in new equipment mounting panels in existing relay panels
- 14) Replace three existing AB40 panel meters with a Bitronics M650 panel meters in each existing relay panel
- 15) Provide and install shielded, twisted pair cables to connect analog outputs from new M650 panel meters to terminal blocks in relay panels
- 16) Remove one SB-1 ammeter switch from each relay panel
- 17) Provide and install eight blank covers over panel openings left after removal of four meters, two ammeter switches, and two FT-1 test switches.
- 18) Provide and install three sets of FT-19R test switches in new equipment mounting panels in each relay panel.
- 19) Provide and install SEL-3620 serial port expander in new equipment mounting panel in Relay Panel 1.
- 20) Provide and install Cat5e cable between SEL-3620 and RTAC module in RTU cabinet
- 21) Provide and install serial communication cables between SEL-3620 and each of the four new SEL-411L relays
- 22) Provide and install fuseblocks and fuses in each relay panel as shown in the drawings
- 23) Provide and install control wiring as shown in the drawings
- 24) Investigate drawing and wiring discrepancies and missing details marked in the drawings and found during the wiring process
- 25) Provide and install terminal blocks and one SEL-2244-5 digital output module in existing Axion RTU in RTU cabinet
- 26) Provide and install new wiring to connect new SEL-2244-5 module to new terminal blocks in RTU cabinet.
- 27) Add wiring between RTU and relay panels and between relay panels 1 and 2 as shown in the drawings.
- 28) Provide and install engraved nameplates as shown in the drawings
- 29) Provide and install two 2-pole 20 amp branch circuit breakers in 125VDC Panelboard No. 2.
- 30) Provide and install DC supply cables between 125VDC Panelboard No. 2 and Relay Panel Nos. 1 and 2
- 31) Install settings provided by Engineer in AcSELeRator format in new SEL-411L relays

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 01000 – General Requirements

- 32) Determine SEL-3620.Settings and install in device.
- 33) Install revised settings in RTAC. Settings file will be provided by Engineer. Contractor to revise settings as needed to provide necessary analog, binary, and control points and to fit final panel wiring.
- 34) Install M650 meter display, CT ratio, PT ratio, analog output, and other settings as required. Settings will be provided by Engineer in pdf format.
- 35) Test and commission new equipment
- 36) Cooperate as needed during testing to verify SCADA system additions and deletions

d. At Westside Substation:

- 1) Retap two sets of CTs in circuit breaker CM602
- 2) Remove two existing SEL-311B relays from existing relay panel 6
- 3) Provide and install two SEL-411LA relays in existing relay panel 6
- 4) Remove and reuse three blank fill panels. Cut one fill panel to fit space remaining after installation of SEL-411LA relays
- 5) Reinstall or replace eight engraved nameplates
- 6) Reconnect two existing serial communications cables to each new relay
- 7) Provide and install control wiring as shown in the drawings
- 8) Install settings provided by Engineer in SEL-411L relays. SEL-411L settings will be provided in AcSELeRator format.
- 9) Test and commission new equipment.
- 10) Cooperate as needed during testing to verify SCADA system additions and deletions

2.3 Contractor will furnish all equipment and materials required to complete the Work.

2.4 Contractor shall provide as-built data for the system as installed as described in Section 17839. This shall include red-line notations on drawings to show all field changes that affect the schematic or wiring diagrams.

3.0 DRAWINGS

3.1 Drawings showing device and wiring removals and additions are listed on the coversheet for the drawing volume. Panel layout and schematic diagrams are provided with bid drawings and point to point wiring diagrams, where available, will be provided with final construction drawings.

3.2 Drawings are as complete and accurate as possible, however, neither Owner nor Engineer guarantees complete accuracy. Contractor shall investigate discrepancies that affect the Work and show corrections on red-line drawings. Contractor shall investigate missing schematic and wiring diagram information marked in the East Iowa relay panel wiring diagrams and mark up record drawings to show correct schematic configuration and wiring.

3.3 Point to point wiring diagrams are listed on the drawing coversheets.

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 01000 – General Requirements

- 3.4 Schematic and wiring diagrams do not exist for internal wiring and cable connections to the RTU at East Iowa. Contractor will be required to remove and install connections to existing terminal blocks in the RTU, add terminal blocks and a digital output card to the existing RTU, add internal wiring between the new card and the new terminal blocks, and connect the new terminal blocks to new control points in the existing relay panel without benefit of any wiring diagrams. All time required to investigate and formulate these connections must be included in the Contractor bid and no scope changes will be made to cover this work.

4.0 WORK BY OWNER OR BY OTHERS

- 4.1 The following work is not a part of this Contract and will be performed by the Owner or others.
- a. Owner will install the buried portion of the 2 inch PVC conduit at East Iowa Substation and will leave new conduit stubbed up out of the ground at both ends. Contractor will extend the new conduit into the existing 69kV PT Junction box and into the cable tray in the floor of the East Iowa control building as shown in the drawings.
 - b. Owner will Install fiber optic cables to SEL-411L relays at both ends of the East Iowa to Westside 69kV line.
 - c. Owner will provide and install SCADA master station programming for both substations.

5.0 SCHEDULE

- 5.1 Contractor may begin work at any time after receiving a Notice to Proceed. The Notice to Proceed is expected to be issued on or about November 14, 2025. Work must be substantially completed by March 31, 2025; with Final Completion by April 30, 2025.
- 5.2 Contractor will cooperate with Owner in scheduling equipment outages. Outages must be agreed upon by Owner, MidAmerican Energy, ITC, and CIPCO, so early scheduling will improve chances that outages will be available at the desired time.
- 5.3 For purposes of preparing their bid, Contractor shall assume work will be permitted normal business days, Monday through Friday, between 7:00 AM and 5:00 PM at East Iowa Substation and any day other than holidays, Monday through Sunday, between 7:00 AM and 5:00 PM at Westside Substation. Requests by Contractor for Owner to permit Contractor personnel that are qualified to work in an energized substation to work outside of these stated hours will be considered by Owner. Owner retains the sole right to grant or deny permission to work outside of the stated hours.

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 01000 – General Requirements

- 5.4 Contractor shall manage and schedule the Work to permit returning the breakers and lines to service as soon as possible and to minimize the length of time needed to complete the project.

6.0 SEQUENCE OF WORK

- 6.1 A suggested sequence is shown in Section 01001. Final Work sequence is subject to adjustment with agreement of the Contractor and Owner. The Contractor must provide a general work plan for approval by the Owner prior to starting work on the Project.

7.0 NEW MATERIALS

- 7.1 Contractor is to furnish and pay for all materials necessary for the completion of the Work. All materials supplied by Contractor shall be new and unused and shall be as specified in the Bill of Materials.
- 7.2 Contractor may arrange with Owner to store materials to be provided by Contractor at the work locations.

8.0 REMOVED MATERIALS

- 8.1 Contractor to return the following removed devices to Owner:
One SEL-501 relay from East Iowa Substation
Two SEL-311B relays from Westside Substation

The contractor will be responsible for disposing of all other materials.

9.0 SITE AND OTHER AREAS

- 9.1 Contractor shall confine his operations to the substation and control room sites described in the drawings.

10.0 ENERGIZED EQUIPMENT

- 10.1 Contractor acknowledges that Contractor and Contractor's employees are aware of the potentially dangerous nature of electricity and are qualified to work on and in the vicinity of secondary (600 volt class), medium voltage (15kV class), and high voltage (69kV class) electric facilities that have not been de-energized. The existing facilities shall remain in operation and energized at all times except when outages are scheduled. Contractor shall take whatever steps are necessary to protect the existing facilities and maintain them so that they do not interfere with or pose a danger to either the new construction, Contractor activities, Owner's workers, or the general public. The cost of such actions shall be included in Contractor's prices as no separate payment will be made.

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 01000 – General Requirements

- 10.2 In the event the work cannot be performed safely, Contractor shall notify Owner and Engineer, and shall cease work until arrangements are made to proceed safely.
- 10.3 Contractor shall ensure that only qualified persons are permitted to work on or near energized facilities, and that all applicable standards and regulations are followed, including observance of approach boundaries as specified in NFPA 70E-2021.
- 10.4 As much as possible, bus differential and breaker failure relaying at both substations shall remain in service during the project. Contractor shall provide prior notice to Owner and Engineer when these protection systems will need to be removed from service.

11.0 OUTAGES

- 11.1 All equipment outages required for the execution of the Work shall be kept to the shortest time duration possible.
- 11.2 Any and all required equipment outages shall be scheduled and coordinated with Owner in advance of the expected date of the outage.
- 11.3 The outages listed below are anticipated to be necessary for the work. The contractor is encouraged to suggest revisions to this list with the overall goals of reducing the quantity of outages needed or reducing outage durations while maintaining personnel safety and security of electrical service to Owner's customers.
- 11.4 Contractor shall understand that the schedule for the 69kV bus outage and outages of all three line terminals must be approved by Owner, MidAmerican Energy, ITC, and CIPCO. Contractor shall submit the requested outage schedule to Owner as early as possible to improve the chances that desired outage dates will be acceptable to all parties.

11.5 East Iowa Substation

- a. An outage of the 69kV bus at East Iowa Substation will be provided to revise connections and add wiring in the low voltage connection boxes of the three 69kV bus PTs. An acceptable weather forecast for the day of the outage will be required. The outage will be limited to one working day. Contractor shall provide any equipment necessary to reach the PTs, since they are mounted high on the 69kV box structure.
- b. Breaker CKX611 will be opened to permit work necessary to replace DPS line relays.
- c. Breaker CKX612 will be opened to permit work necessary to replace Westside line relays. This outage will be simultaneous with the outage on breaker CM602 at Westside Substation.

11.6 Westside Substation

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- a. Breaker CM602 will be opened to permit work necessary to replace East Iowa line relays. This outage will be simultaneous with the outage on breaker CKX612 at East Iowa.

12.0 SWITCHING

- 12.1 All switching required for the prosecution of the Work will be done by Owner.

END OF SECTION 01000

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1.0 SCHEDULE

- 1.1 Contractor may begin work at any time after receiving a Notice to Proceed and receipt of materials. The start date will be mutually agreed to by the Owner and Contractor.
- 1.2 The Notice to Proceed is expected to be issued on or about November 14, 2024. All Work must be substantially completed by March 31, 2025, with Final Completion by April 30, 2025.
- 1.3 Contractor shall order materials to provide for delivery of all materials before the start date.

2.0 SEQUENCE OF WORK

- 2.1 Contractor shall schedule a preconstruction meeting within two weeks of receipt of Notice to Proceed. Meeting shall be held at Indianola Municipal Utilities. Virtual participation is not acceptable.
- 2.2 Contractor shall perform as much prework and preparatory work as possible before beginning of outages to minimize the duration of each equipment outage. Following is a list of recommended work that should be completed before equipment outages.
 - A. Prewire PT junction cabinet.
 - B. Set and test all new relays.
 - C. Set panel meters.
 - D. Set SEL-3620.
 - E. Install conduit risers and new PT cable from existing PT junction box to relay panel 1 in East Iowa control building.
 - F. Add digital output module, terminal blocks, and wiring to existing East Iowa RTU.
 - G. Premount relays and test switches in equipment mounting panels for East Iowa Substation and, where possible, install wiring between relays and test switches mounted in the same equipment panel.
- 2.2 A preliminary suggested sequence is provided below. The actual Work sequence is subject to change depending upon needs of the Contractor and the Owner. The Contractor must submit a general work plan for approval by the Owner prior to starting work on the Project. Revisions to the sequence suggested by Contractor will be considered by Owner. Owner retains the sole right to approve the work sequence.
 - A. Contractor receive Notice to Proceed.
 - B. Contractor schedule preconstruction meeting within two weeks of receipt of Notice to Proceed. Meeting shall be held at Indianola Municipal Utilities. Virtual participation is not acceptable.

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- C. Contractor verify dimensions of equipment mounting panels for installation in relay panels at East Iowa Substation.
- D. Contractor schedule bus and line outages as soon as reasonably practical after receipt of Notice to Proceed. Outages must be agreed upon by Owner, MidAmerican Energy, ITC, and CIPCO, so early scheduling will improve chances that outages will be available at the desired time.
- E. Contractor order and receive materials.
- F. Contractor prewire PT junction box, install conduit risers and PT cable from PT junction box to relay panel 1 at East Iowa Substation.
- G. Contractor install settings and test all new SEL-411L relays, panel meters, and SEL-3620 serial port expander.
- H. Owner switch customer load normally served from East Iowa Substation to Westside Substation.
- I. Owner deenergize 69kV bus at East Iowa. During bus outage,
- J. Contractor make changes to secondary connections in PT LV connection boxes and complete wiring in PT junction box.
- K. Contractor complete work necessary to replace DPS line relaying in relay panel 1 at East Iowa Substation and function test new DPS line protection schemes and associated SCADA points.
- L. Contractor complete work necessary to replace Westside line relaying in relay panel 2 at East Iowa Substation and function test new Westside protection schemes and associated SCADA points.
- M. Owner return 69kV bus to service, leaving CKX612 open.
- N. Contractor perform load checks to verify current and voltage magnitudes and phase angles on new DPS line relays and meters.
- O. Owner switch East Iowa load temporarily served from Westside Substation back to East Iowa.
- P. Contractor complete work necessary to replace East Iowa line relaying in panel 6 at Westside Substation and function test new East Iowa protection schemes and associated SCADA points.
- Q. Contractor perform end-to-end testing on East Iowa – Westside line relaying.
- R. Owner return CKX612 and CM602 to service.

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- S. Contractor perform load checks to verify current and voltage magnitudes and phase angles on new line relays at both ends of the line.

END OF SECTION 01001

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Section 16910 – Materials

1.0 **PROJECT MATERIAL**

- 1.1 Project Materials quantities and catalog numbers are called out in the construction drawings. This section provides a guide to help Contractor find all material items included in the construction drawings.
- 1.2 This section is provided solely as a reference and guide for Contractor. All material required to complete the Work as described by the Contract Documents is to be provided by Contractor, regardless of whether or not any specific items are included in the drawings or this specification section.
- 1.3 Contractor shall submit shop drawings for fabricated equipment mounting plates and cover plates needed at East Iowa Substation to Engineer for review prior to ordering. Contractor shall verify dimensions of equipment mounting plates prior to preparation of shop drawings and placing of order. Such verification must be done at the East Iowa Substation. When reviewing mounting plate dimensions, Contractor shall pay special attention to locations of wiring looms on backs of relay panel doors to make sure all conflicts can be managed.
- 1.4 Materials required at East Iowa Substation are summarized below.

Drawing	Item	Comments
CKR-301A	Blank covers Equipment mounting panels FT-19R test switches SEL-411L-1 relays SEL-3620 gateway Bitronics M650 meter 3-pole fuse blocks 2-pole fuse blocks 1-pole fuse blocks 3A fuses Communications cables Shielded, twisted pair cable Nameplates	See details for equipment mounting panels and nameplates on Dwg. CKR-301D.
CKR-302A	Blank covers Equipment mounting panels FT-19R test switches SEL-411LA relays Bitronics M650 meter 3-pole fuse blocks 2-pole fuse blocks 1-pole fuse blocks 3A fuses Shielded, twisted pair cable Nameplates	See details for equipment mounting panels and nameplates on Dwg. CKR-302D.
CKR-310A	SEL-2244-5 output module Terminal blocks	
CKR-410	3-pole fuse block 4-pole terminal block 6A fuses	

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CKR-472	2-pole branch circuit breakers	
E-15	PVC conduit and PVC LBs for building conduit entrance RGC conduit for riser at PT junction box	

1.5 Materials required at Westside Substation are summarized below.

Drawing	Item	Comments
CMR-300B	SEL-411A relays Nameplates	See nameplate details on Dwg. CMR-300C

END OF SECTION 16910

INDIANOLA MUNICIPAL UTILITIES
69kV Line Relay Replacement Project
Section 01000 – General Requirements

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Product Data.
 - 3. Miscellaneous record submittals.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Locations and depths of underground utilities.
 - d. Revisions to routing of conduits.
 - e. Revisions to electrical circuitry.
 - f. Actual equipment locations.

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- g. Changes made by Change Order or Work Change Directive.
 - h. Changes made following Engineer's written orders.
 - i. Details not on the original Contract Drawings.
 - j. Discrepancies in the original Contract Drawings.
 - k. Field records for variable and concealed conditions.
 - l. Record information on the Work that is shown only schematically.
- 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 - 4. Mark record sets with red-colored pencil or pen. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 6. Note Construction Change Directive numbers, Change Order numbers, and similar identification, where applicable.

2.2 TESTING DOCUMENTATION

- A. Testing Documentation: Provide test logs, test reports, event records, AcSEerator database, and test reports as described in Section 337233.19.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents: Store record documents in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Engineer's reference during normal working hours.

END OF SECTION 017839

INDIANOLA MUNICIPAL UTILITIES REPLACE 69KV LINE RELAYS

SECTION 337233.13 – SUBSTATION RELAYS & CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Section 33 Substation Control Wiring.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Relays and control devices
 - 2. Communication devices.
 - 3. Special cables.
 - 4. Accessories.

1.3 DEFINITIONS

- A.

ANSI	American National Standards Institute
ASTM	American Society for the Testing of Materials
IEEE	Institute of Electrical and Electronics Engineers
NEMA	National Electric Manufacturers Association
NFPA	National Fire Protection Association
UL	Underwriters Laboratories

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 RELAYS AND DEVICES

- A. Digital Relays: Furnish relays with the manufacturer and model number as indicated on the drawings. Furnish special cables with the relays as indicated.
- B. Auxiliary Relays: Furnish auxiliary relays, timers, and other accessory devices with the manufacturer and model number as indicated on the drawings.

- C. Meters: Furnish meters with the manufacturer and model number as indicated on the drawings. Furnish special cables with the relays as indicated.
- D. Communications equipment: Furnish communications equipment with the manufacturer and model number as indicated on the drawings. Furnish special cables with the relays as indicated.

2.2 ACCESSORIES

- A. Fuses Holder & Fuses: Fuse manufacturer, model number, and fuse ratings shall be as indicated on the drawings. Provide spare fuses as indicated.
- B. Branch Circuit Breakers: Circuit breaker manufacturer, model number, and ratings shall be as indicated on the drawings.
- C. Terminal Blocks: Terminal block manufacturer and model number shall be as indicated on the drawings.
- D. Device Nameplates: Nameplates shall consist of professionally engraved plastic. Engraving shall be as indicated on the drawings. Device nameplate materials shall match as closely as possible those presently in service at each substation. Nameplates shall be attached using 3M-brand 4032 foam tape. No other tape is acceptable.
- E. Device Labels: Device labels shall be adhesive labels and have 3/8" (minimum) black lettering on a white background.
- F. Wiring Ducts: Furnish Panduit or approved equivalent, plastic snaps-slot wiring ducts.
- G. Required wiring accessories: Furnish accessories such as cleats, mounting straps, and mounting hardware.
- H. Blank Covers: Blank cover plates shall be 11-gauge steel and painted to match the panel.
- I. Equipment Mounting Plates: Equipment mounting plates for new relays, test switches, or other devices shall be 11-gauge steel and be sufficiently braced to properly support the weight of the equipment. Plates and bracing shall be painted to match the panel.

2.3 INSTRUCTION MANUALS

- A. All equipment instruction literature shall be bound in a heavy duty "D" ring binder. Additional binders, numbered consecutively, may be used if required. The front of each binder shall be labeled with the Owner, Contractor, and Project name. Each binder shall include a Table of Contents.

PART 3 - EXECUTION

3.1 GENERAL

- A. All work performed on the relay panels shall be performed by personnel experienced in working with energized utility style relay and control panels.
- B. The existing relay panels shall remain energized as much as possible subject to Contractor work procedures. When modifying the existing relay panels, Contractor shall take all necessary precautions to prevent inadvertent operation of relays or controls.
- C. All work performed on the relay panels shall be performed by personnel experienced in working with energized utility-style relay and control panels. Experience in utility transmission and distribution substations is required. Personnel must be fully capable of reading, interpreting, and completing wiring in accordance with prepared wiring diagrams.

3.2 NEW PANELS

- A. Mount panels as indicated on the drawings.
- B. Properly secure each panel to the building structure and to adjacent panels.
- C. Ground all panels.

3.3 EXISTING PANELS

- A. The existing relay panels shall remain energized as much as possible subject to Contractor work procedures. When modifying the existing relay panels, Contractor shall take all necessary precautions to prevent inadvertent operation of relays or controls
- B. All panel cuts and scratches shall be touched up with paint to match the existing panel finish.
- C. Blank Covers: Install blank cover plates over openings for future devices or removed.
- D. New devices shall be mounted parallel and perpendicular to existing devices
- E. All panel cuts and scratches shall be touched up with paint to match the existing panel finish.
- F. Contractor shall be responsible for maintaining an as-constructed set of drawings which will be provided to the Engineer at the completion of the project.
- G. At locations described on the drawings, Contractor shall install blank cover plates over openings that result from removal of some devices. Coverplates shall be constructed from 11-gauge steel and painted to match the existing panels.
- H. Adapter plates for new relays and test switches shall be furnished and installed by the Contractor where indicated in the drawings. The adapter plates shall be constructed from 11-gauge steel and sufficiently braced to support the equipment. Contractor shall attach the adapter plates to the relay panels with sufficient hardware to properly support the weight of the new

equipment. If necessary, Contractor shall be responsible for additional panel bracing if the new equipment adversely affects the relay panel. Adapter plates and bracing shall be painted to match the existing panels.

3.4 WIRING

- A. All wiring shall be 600 volt, crosslink polyethylene insulated, Type SIS, No. 12 (65 strand) switchboard wire.
- B. All wiring to Electroswitch rotary switches and lockout relays shall be spirally bundled around the switch to allow the switch to be “rolled” out of the panel for future wiring changes.
- C. All wires shall be kept as short as practical with no excess wire coiled up or looped in the wire ducts. All wiring shall be neatly and carefully installed by workmen skilled in such installation.
- D. Cables and wires shall be installed and terminated in accordance with Substation Control Wiring Requirements as noted on the drawings.
- E. All wires shall be kept as short as practical with no excess wire coiled up or looped in the wire ducts. All wiring shall be neatly and carefully installed by workmen skilled in such installation.
- F. Wires shall be terminated with insulated ring type insulated lugs, securely crimped. Ring lug terminals shall be Thomas & Betts or Burndy. NOTE: No slotted terminal connectors shall be used. Use of non-approved lugs may result in rejection of work and complete retermination of all wiring
- G. Sufficient care shall be exercised in the use of crimp-on terminal connectors to insure that each wire is firmly attached to the connector and that proper wire strip length, as determined by the lug manufacturer, is followed. Conductor insulation shall be squarely and evenly cut and shall be continuous with the connector barrel.
- H. Only controlled-cycle compression tools supplied by the manufacturer of the ring lug being used are acceptable. Use of compression tools not supplied by the ring lug manufacturer may result in rejection of work and complete retermination of all wiring
- I. Install special cables as required.
- J. All wiring or cables that are disconnected shall be completely removed from wireways and wire looms. Disconnected wiring shall not be left in the relay panels.

3.5 ACCESSORIES

- A. Device Nameplates: Assure a clean surface exists prior to adhering nameplates. Nameplates to be installed level.
- B. Device Labels: A device location label used to locate each device with respect to the point-to-point wiring diagrams shall be installed next to each device inside the panel. These adhesive labels shall have 3/8” black letters on a 3/4” x 1” white background.

- C. Wiring ducts shall be used as much as possible for all wire bundles. These plastic ducts shall be securely fastened to the panel and shall be completely independent of the relay cases and other equipment mounted on the panel.
- D. Required wiring accessories such as cleats, mounting straps, terminal connectors, fuse blocks, terminal boards, cartridge fuses of the ratings shown and the like, shall be provided by the Contractor.

END OF SECTION 337233.13

INDIANOLA MUNICIPAL UTILITIES REPLACE 69KV LINE RELAYS

SECTION 337233.19 – SUBSTATION TESTING & COMMISSIONING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Section 337243 Substation Control Wiring.

1.2 SUMMARY

- A. This Section includes the following: Testing and commissioning of substation equipment, auxiliary equipment, relays, circuits, and controls, etc.
- B. Equipment and systems to be tested include the following:
 - 1. All relays, meters, communications devices, SCADA Axion cards, cables, and wiring provided and installed by the Contractor. RTU testing shall prove proper operation, scaling, and statuses of all points added or revised as part of this project. Settings for relays, RTUs, and digital meters will be provided by the Engineer. SEL-3620 settings will be determined and installed by Contractor.
 - 2. Current circuits revised for this project shall be tested by pushing currents from terminal blocks in the relay panels or in the 69kV circuit breakers through the relays and meters and verifying correct phase angles and magnitudes in all devices.
 - 3. Potential circuits revised for this project shall be tested by determining that voltage phasors have correct amplitudes and phase angles in the new devices. Magnitude and phase angles of Y-winding potentials shall be verified by comparison with the X-winding potentials.
 - 4. Contractor shall verify proper operation of all relay and control circuits and schemes that were modified for this project. Contractor shall verify proper tripping of the circuit breakers.
 - 5. The Owner will switch all load normally fed from the East Iowa Substation to the Westside Substation during work at East Iowa to reduce the risk of inadvertent loss of load during the relay replacement, testing, and commissioning work. However, problems with existing circuit switcher CK601 on the high side of East Iowa Transformer No. 1 require that the circuit switcher not be tripped during this project. Circuit Switcher CK601 is presently closed, but the main breaker on the low side of East Iowa Transformer No. 1 is open, leaving the transformer energized but not carrying load.
 - 6. Contractor shall verify that contacts in the new SEL-411L relays at East Iowa will trip the bus lockout. Test switches are not installed on the lockout trip contacts. The problems with the existing circuit switcher CK601 require that it not be tripped during the relay replacement, testing, or commissioning work, so Contractor must take all precautions necessary to prevent tripping of the circuit switcher. Contractor shall provide Owner with details of the method to be employed to prevent outages for review and acceptance prior to the testing.

7. Contractor shall perform satellite-controlled end to end testing on the primary and secondary SEL-411L relaying on the East Iowa to Westside 69kV line.
8. Contractor shall cooperate with MidAmerican Energy in testing and verifying analog quantities provided to the MidAmerican Energy RTU at East Iowa Substation.
9. Testing contractor shall cooperate with testing of the Owner's RTUs at East Iowa and at Westside by providing analog quantities, alarms, and status point changes as necessary to verify new or revised points shown in the points lists for each substation. Testing contractor will be responsible for installing revised settings (provided by Engineer) in existing RTACs and testing of new substation devices that interface with the Owner's SCADA system. Contractor will determine settings and install them in the new SEL-3620 at East Iowa Substation.

C. The following tests will be performed by Others:

1. Fiber testing will be provided by others.
2. Owner's SCADA Master Station will be programmed by others.

1.3 STANDARDS

A. Testing shall adhere to the requirements and recommendations contained in the following standards:

1. American National Standards Institute (ANSI):
 - C12.1 Code for Electricity Metering
 - C12.11 Instrument Transformers for Revenue Metering, 10 kV BIL through 350 kV BIL.
 - C12.13 Electronic Time-of-Use Registers for Electricity Meters.
 - C12.15 Electricity Metering - Solid-State Demand Registers for Electromechanical Watthour Meters
 - C12.16 Solid-State Electricity Meters.
 - C63.2 Electromagnetic Noise and Field-Strength Instrumentation, 10kHz to 40GHz.
2. American Society for Testing and Materials (ASTM):
 - D877 Test Method for Dielectric Breakdown Voltage of Insulating Liquids Using Disk Electrodes.
 - D1816 Test Method for Dielectric Breakdown Voltage of Insulating Oils of Petroleum Origin Using VDE Electrodes.
3. Institute of Electrical and Electronics Engineers (IEEE):
 - C2 National Electrical Safety Code.
 - C37.20.1 Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear.
 - C37.20.2 Metal-Clad and Station-Type Cubicle Switchgear.
 - C37.20.3 Metal-Enclosed Interrupter Switchgear.
 - C57.13 Requirements for Instrument Transformers.
 - C57.13.1 Guide for Field Testing of Relaying Current Transformers.
 - C57.13.2 Conformance Test Procedures for Instrument Transformers.
 - C57.13.3 Guide for Grounding of Instrument Transformer Secondary Circuits and Cases.
 - 450 Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations
4. National Fire Protection Association (NFPA)

- 70 National Electrical Code.
5. National Electrical Manufacturers Association (NEMA) and Insulated Cable Engineers Association (ICEA):
- | | |
|--------------------|--|
| WC 3/ICEA S-19-81 | Rubber-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy. |
| WC 5/ICEA S-61-402 | Thermoplastic-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy. |
| WC 7/ICEA S-66-524 | Cross-Linked-Thermosetting-Polyethylene-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy. |
| WC 8/ICEA S-68-516 | Ethylene-Propylene-Rubber-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy. |
7. InterNational Electrical Testing Association (NETA)
ATS-2017 Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems
8. North American Electric Reliability Council (NERC)
- | | |
|---------|---|
| PRC-005 | Transmission and Generation Protection System Maintenance and Testing |
| PRC-008 | Underfrequency Load Shedding Equipment Maintenance Programs |
| PRC-011 | UVLS System Maintenance and Testing |
| PRC-017 | Special Protection System Maintenance and Testing |

1.4 TESTING CONTRACTOR

- A. Testing shall be performed by a contractor routinely engaged in the setting and testing of utility grade power system equipment, relays, protection schemes, and associated devices.
- B. Detailed information concerning the proposed testing contractor's experience shall be provided if requested. Documentation of contractor's experience shall include, at minimum, a list of substation relay and control projects completed during the last year; detailed description of experience with transmission line distance relaying, transmission system breaker failure relaying, and Schweitzer Engineering Laboratories devices; a listing of the contractor's testing equipment; names and resumes of personnel who will be assigned to the project; and utility references including names and phone numbers for the specific personnel and the contractor in general.

1.5 PERSONNEL

- A. The lead testing technician shall have a minimum of 10 years experience testing utility protection and control equipment. Experience shall include a minimum of 5 years being in responsible charge of testing programs for substations of similar size and nature as this project and shall include the testing and commissioning of substations with similar types of relays and control schemes. Experience shall include a complete scope of testing such as is specified in these specifications. Lead testing technicians shall be certified in accordance with ANSI/NETA ETT-2000 and shall have a current Level III or higher certification.
- B. Additional testing technicians shall have a minimum of 5 years testing experience in utility testing. Experience shall include the testing and commissioning of substations with similar types of relays and control schemes and shall include a complete scope of testing such as is

specified in these specifications. Testing technicians shall be certified in accordance with ANSI/NETA ETT-2000.

- C. Resumes of lead testing technician and all additional testing technicians that will be assigned to the project shall be provided to Owner at least 30 days prior to commencement of testing. Testing contractor shall replace any testing personnel that Owner does not deem qualified at any time before or during the testing process. Owner reserves absolute right to determine the necessity of such replacement.

1.6 TEST EQUIPMENT

- A. Test equipment listed below is the minimum required to perform the testing and checkout of the relay and control systems. Test technicians must be familiar with the use of this equipment and have a thorough understanding of the devices that are being tested.
- B. All test equipment shall have been tested, calibrated, and certified by the equipment manufacturer within 12 months prior to performing the tests. Copies of all certificates shall be provided to Owner prior to testing.
- C. Relay Test Set
 - 1. Voltage Source: Device(s) capable of supplying three independent voltage sources (1-250V) that are accurately variable both in magnitude and phase angle.
 - 2. Current Source: Device(s) capable of supplying three independent current sources (0-25A) that are accurately variable both in magnitude and phase angle.
 - 3. Frequency source: Device that is capable of supplying two voltage sources (0-150V) with one of the sources capable of supplying accurately variable frequency. Frequency shall be variable from 55-65 Hz minimum with at least 0.1 degree resolution.
 - 4. Digital Timer: Device capable of timing contact or DC voltage transitions integral with the operation of the voltage and current sources. Timer resolution must be 0.0001 second or better.
 - 5. The accuracy of all sources shall be equal to or better than the following:
 - a. Magnitude: $\pm 0.5\%$
 - b. Phase Angle: ± 0.5 degrees
 - c. Frequency: $\pm 0.01\%$
 - d. Time Measurement: ± 0.0001 sec
 - e. The distortion of the sine wave sources must be less than 2 percent.
- D. Voltmeter and Ammeter; Multimeters used during the calibration of meters, transducers and relays must be high accuracy digital meters that meet the following specifications:
 - 1. 4 ½ digit or better resolution
 - 2. True RMS AC measurement
 - 3. Basic DC Accuracy: 0.05% of scale used
 - 4. Basic AC Accuracy: 0.2% of scale used
- E. Phase Angle Meter
 - 1. An analog or digital phase angle meter shall be utilized during testing of the auto synchronizing system or sync check functions.
 - 2. Digital or analog phase angle meters are acceptable for recording voltage and current load and phase angle values. Clamp-on phase angle meters are not acceptable.

- F. Test Jack Devices: ABB FT-1 and FT-19R test switches are used extensively throughout the protective relay, control, and metering systems to facilitate testing. Disconnection of internal wiring is discouraged and is to be performed only when absolutely necessary. To this end, it will be necessary to have sufficient quantities of the appropriate ABB test jacks to enable use of the test switches.

1.7 SCHEDULE

- A. Lead testing technician shall provide a testing program and schedule to indicate the sequence of the work and the time period during which it will be completed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 GENERAL

- A. See Section 01001 Sequence of Work for schedule details.
- B. Existing relay panels shall remain energized at all times. When testing relay panels, Contractor shall take all necessary precautions to prevent inadvertent operation of relays or controls.
- C. Furnish qualified test personnel to initiate and manage the test program for this project. Provide qualified test technicians as necessary to perform all testing required under these specifications.
- D. Furnish all test equipment as specified or required to properly perform each specified or required test to completely verify the proper operation of all equipment and systems.

3.2 REQUIRED TESTING AND COMMISSIONING SERVICES

- A. Testing is to be as complete and as extensive as necessary to assure the proper operation of all equipment and protective systems for all equipment within the substation and for all equipment extending from the substation.
- B. Contractor shall provide a written test plan for the testing to be completed for this project. The plan shall be inclusive, indicating the tests that are to be completed, the equipment that will be tested, and the schemes that will be tested. The test plan shall incorporate a schedule that indicates when item-specific testing will be performed. Owner may assign representatives to witness testing based upon this schedule. Contractor may be required to repeat testing in the presence of Owner's representative should performance of testing vary from the schedule without advance notice to Owner.
- C. Test and set all of the relays according to settings provided by Engineer. Revisions to relay settings must be pre-approved by Engineer.

- D. Function test all circuits installed for this project using primary or secondary current and voltage injection. Current and voltage values used to activate relays shall be based on values necessary to confirm the differing modes of operation for each relay, such as zone 1, zone 2, zone 3, overcurrent conditions, overvoltage conditions, undervoltage conditions, underfrequency conditions, and etc. This will include all AC potential and current circuits and all control circuits. This testing will be done in conjunction with the testing and checkout by Owner on the SCADA system. These values will be used to confirm the data connections to the communications processors, ethernet switch, SCADA RTU, and Control Center.
- E. Provide contact status change and signal inputs to devices providing data to RTU equipment to confirm proper operation of the equipment.
- F. Coordinate testing of transmission line protection equipment with Contractor personnel or outside parties at remote terminals and with utility to confirm proper operation of the control schemes.
- G. Simulate in-service fault operation using current and voltage injection tests to trip protective equipment for all protective schemes.
- H. Perform all initial pre-energization tests or checks to confirm the readiness of equipment to be energized.
- I. Perform all load tests, checks or verification procedures to confirm the proper connection and operation of circuits, relays, protection schemes, etc. being placed in service. This includes satellite-controlled synchronous end-to-end tests on all transmission lines that utilize piloted protection schemes.
- J. Confirm the proper operation of all circuits installed for the substation. This will include using a set of substation control drawings and checking the proper operation of each contact opening/closure, switch opening/closure, operation of each coil, relay, etc. that is connected into the circuits. Each device confirmed for proper operation shall be "yellow lined" to indicate the device has been checked and found operating properly. If necessary, incidental corrections shall be coordinated with the Engineer, implemented, placed into service, and functionally tested. For the purpose of the Contract, the testing contractor shall include a minimum of 50 conductor termination relocations and the addition of 50 wire jumpers, complete with terminations.
- K. Provide thermal infrared scans of power equipment, bus, control equipment, auxiliary equipment, etc under the maximum load conditions possible.

3.3 REQUIRED RELAY AND RELATED DEVICES TESTS

- A. Tests covered by this specification shall include but not be limited to the following:
- B. Current Transformer Tests
 - 1. Verify grounding.
 - 2. Verify correct connections with system requirements.
 - 3. Verify that all CT secondary circuits are grounded at one and only one point as shown on drawings.

- C. Voltage Transformer Tests:
 - 1. Verify grounding.
 - 2. Verify correct connections with system requirements.

- D. Microprocessor-based Relays:
 - 1. Verify nameplate data.
 - 2. Verify grounding.
 - 3. Record model, style, and serial numbers.
 - 4. Verify and record connected CT ratios and rated control voltage.
 - 5. Record firmware and software revision numbers.
 - 6. Verify operation of target LEDs and displays.
 - 7. Check tightness of connections.
 - 8. Perform acceptance tests per manufacturer's instruction.
 - 9. Install settings provided by others.
 - 10. Apply voltages and currents and test for proper element pickups and logic operation.
 - 11. Check functional operation of each element used in the protection scheme.
 - 12. Perform satellite-synchronized end-to-end tests for piloted schemes.
 - 13. Verify DTT operation for pilot schemes with DTT enabled.
 - 14. Reset all demand, statistical, SOE, and event records after completion of testing.
 - 15. Download a complete set of as-left settings and provide to Engineer with testing documentation. Include protection and logic settings for all settings groups, global settings, port settings, and passwords.

- E. Relay Switchboards:
 - 1. Visually inspect all equipment, wiring, etc.
 - 2. Verify grounding.
 - 3. Instrument transformer tests.
 - 4. Relay testing.
 - 5. Verify correctness/completeness of engraved nameplates.

- F. Communications Processors:
 - 1. Verify cabling between communications processors, SEL relays, and other devices.
 - 2. Install settings and functionally test communications processors.
 - 3. Adjust analog point scaling as required to provide correct analog quantities to SCADA systems.
 - 4. Verify grounding.

- G. Meter and transducer tests
 - 1. Verify nameplate data.
 - 2. Verify grounding.
 - 3. Inspect physical and mechanical condition.
 - 4. Check mechanical electrical connections.
 - 5. Record model number, serial number, firmware revision, software revision, and rated control voltage.
 - 6. Verify operation of display and indicating devices.
 - 7. Record passwords.
 - 8. Install settings file provided by others or set required parameters, including IT ratios, system type, frequency, power demand methods and intervals, and communications requirements.
 - 9. Verify grounding per manufacturer's instructions.

10. Apply voltages and currents to analog inputs and verify correct measurement and indication.
 11. Verify correct operation of all auxiliary digital or analog input or output, including scaling.
- H. Protection and control scheme wire checks:
1. Testing shall include a thorough review of the schematic diagrams and checking each element to verify that it is functioning properly within the scheme. The drawing elements are to be yellow-lined when it is determined that part of the circuit is operating correctly. The circuits to be included for the review include:
 2. Current transformer circuits
 3. Potential transformer circuits
 4. Control circuits
 5. Auxiliary power circuits
 6. Include all circuits to the yard equipment
- I. Functional Tests:
1. Functional tests shall include a complete simulation of operation of the protection and control schemes by injecting current and voltage signals into the secondary or primary circuits to confirm proper operation of the circuits and controlled equipment. This testing is to be concluded prior to energization of any equipment associated with the protection and control scheme. This testing shall include the following:
 - a. Inject current and voltages into the secondary circuits to the relays, meters, and monitoring devices. Primary current injection may be used in lieu of secondary current injection.
 - b. Measure voltage, current, and phase angles into or out of all equipment on the circuit.
 - c. Increase values to actuate pickup of the relays for the different relay settings to demonstrate proper operation of the relays and the control circuits.
 2. Perform the trip tests for the differing substation configurations that the station may experience during switching or operating conditions. All functions, including, but not limited to, pilot trip, non-pilot trip, reclosing, and breaker failure schemes with direct transfer trip shall be demonstrated.
 3. Record all tests on forms provided by the tester.

3.4 EQUIPMENT TESTS

- A. Supervisory Remote Terminal:
1. Contractor will test all cables and wires and check terminations to the supervisory remote terminal.
 2. Verify grounding.
 3. Contractor will assist the owner or manufacturer's field representative in functional and operational tests of the supervisory remote terminal unit to assure correctness of control, status point, and analog metering operation.
 4. Verify grounding.
 5. Visually inspect all equipment for drainage.
 6. Assist manufacturer's representative in the calibration and testing of the carrier system to assure correctness of operation of equipment within the substation.

3.5 LINE TERMINAL REENERGIZATION

A. Planning

1. A meeting will be held between responsible parties approximately two (2) weeks ahead of line outages and scheduled equipment energizations to review the work to be accomplished.
2. The schedule for the work, including the tasks to be accomplished, the time periods for the tasks, intermediate testing and check points, etc. will be reviewed.
3. During any scheduled outage, a weekly meeting, or more often as site conditions dictate, will be held to review progress, status, and site conditions that may affect the progress of the work.

B. Line Outages

1. Line outages will not take place until all equipment, circuits, and schemes for the line have been installed, tested and made ready.
2. The scheduling and release of a line outage will be completely at the discretion of the Owner and interconnecting utilities.
3. The installation and testing of the equipment, circuits, and schemes shall be planned and sequenced to minimize the amount of outage time required, and as much as is practicable, allow the line to be re-energized when not required for construction or testing.
4. Work to be accomplished during the line outage:
 - a. Perform final circuit and control scheme testing on the line or equipment terminals.
 - b. Perform end-to-end trip tests of piloted line relaying using synchronized input to relays via satellite controlled tests.
 - c. Physically connect the transmission line into the substation, if required.
 - d. For new or rebuilt lines, perform phasing checks to confirm the phasing of the conductors into the substation.

C. Equipment energization:

1. A coordination meeting shall be held approximately 1 week in advance of the scheduled energization.
2. Responsibilities of Contractor during the pre-energization and energization tasks.
 - a. Witness initial energization of equipment.
 - b. Assure that the initial energization sequence is followed as determined in the initial coordination meeting.
 - c. Perform all testing and checks necessary to confirm the equipment, relays, etc. are operating properly, seeing the proper voltage, currents, phase angles, or other properties as required for proper operation.
 - d. Record all tests and checks on forms provided by the testing technician.
 - e. Coordinate with test technicians (including test technicians with other company affiliations) at other locations remote from the substation to assure proper operation of the facilities being placed in service.
 - f. Provide notification to other responsible personnel when tests have proven the equipment is operating satisfactorily and he is ready to proceed with additional energization of equipment.
3. Energization
 - a. Perform the energization of equipment in accordance with the energization schedule previously established.
 - b. Perform the necessary tests and checks.

- c. Continue with the next step of the energization procedure when and only when responsible parties agree the tests and checks are complete and the equipment is operating properly.

3.6 POST ENERGIZATION TESTS AND FOLLOWUP

- A. Immediately after the initial energization of new equipment, the testing technician shall complete load tests and checks to include the following:
 1. Measure currents, voltages, and phase angles at the inputs or outputs of all relays, meters, monitoring equipment, etc. Confirm the proper inputs to all equipment due to external equipment measurements.
 2. Using "Meter" command on SEL relays, verify current polarity, and substation throughput in line and breaker protection relays.
 3. Plug into all relays, meters, and monitoring equipment, etc. with a computer and read and save all internal registers to confirm the inputs to the equipment according to the equipment's internal data. Compare to the external readings to verify proper readings.
 4. Conduct "live end-to-end" tests using fault simulation hardware/software or equivalent on all lines with piloted relaying.
 5. Record all measurements on forms provided by the testing technician.
 6. Confirm with responsible parties when all post-energizing testing is completed and the equipment or sub-sections thereof are ready for commercial operation.
- B. Complete marks, comments to record drawings and submit to Engineer for revision of drawings.
- C. Test technician shall submit final copies of all test reports to Engineer.
- D. Contractor shall provide an event record, in electronic format, from each microprocessor-based relay set or reset under this project to Engineer. Event shall be generated by a trigger command to the relay. The trigger shall be initiated after final settings have been placed on the relay. Events shall be emailed to Engineer no later than 24 hours after the line terminal is commissioned and placed into service.

3.7 DOCUMENTATION

- A. A written log shall be maintained of the testing performed noting the date, time and personnel performing the tests. Contractor shall develop and maintain test forms for each device or system tested. The form shall include all pertinent nameplate data including model and serial numbers, the date and time of the test and the person performing the tests.
- B. The testing logs and test forms shall be available on-site for viewing by Owner or his representatives at all times. At the completion of the project, two copies of the testing log and the testing forms shall be delivered to Owner for his records.
- C. Contractor shall provide an event record, in electronic format, from each microprocessor-based relay set or reset under this project to Engineer. Event shall be generated by a trigger command to the relay. The trigger shall be initiated after final settings have been placed on the relay. Events shall be emailed to Engineer no later than 24 hours after the line terminal is commissioned and placed into service.

- D. Testing Documentation. Contractor shall provide test data forms and record all tests. Tests shall be recorded on the actual forms. Recording test data on backup data sheets and transposing the data at a later date is not acceptable. Completed test forms shall be signed and dated on the date they are completed. Two copies of completed test forms shall be submitted to OWNER on a weekly basis. Testing technician shall maintain two sets of full size drawings. One set shall be used to yellow line circuits/schemes indicating that the testing has been completed and schemes have been proven correct. The second set shall be used to mark any changes, revisions, etc. to the drawings. Both sets shall be submitted to the Engineer at the completion of the project.
- E. Maintain an as-constructed set of drawings during the construction of the Work. Deliver the as-constructed drawings to Engineer at the completion of the Work.
- F. Test reports shall at minimum include the following:
 - 1. Summary of project.
 - 2. Description of equipment tested.
 - 3. Description of tests.
 - 4. Test data.
 - 5. Analysis and recommendations.
- G. Test data records shall at minimum include the following:
 - 1. Identification of the testing contractor.
 - 2. Equipment identification.
 - 3. Humidity, temperature, and other conditions that may affect test results.
 - 4. Date of inspections, maintenance, tests, or calibrations.
 - 5. Identification of the testing technician.
 - 6. Indication of inspections, tests, maintenance, and/or calibrations to be performed and recorded.
 - 7. Indication of the expected results when calibrations are to be performed.
 - 8. Indication of as-found and as-left results, as applicable.
 - 9. Sufficient spaces to allow all results and comments to be included.
- H. Documentation of test procedures, test results, and test equipment certifications shall be provided for all systems and equipment as required in applicable NERC standards. Documentation shall be in a format acceptable to demonstrate compliance with NERC standards in effect at the time the testing is completed. Contractor shall assist the Owner with the initial NERC compliance audit following commissioning of the project by providing any additional documentation or certification necessary to assure compliance with NERC standards that apply to protection system testing.

END OF SECTION 337233.19

INDIANOLA MUNICIPAL UTILITIES REPLACE 69KV LINE RELAYS

SECTION 337233.33 - RACEWAY FOR SUBSTATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including general and supplementary conditions and Division 01 Specification Sections apply to this section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Conduit, ducts, and duct accessories for direct-buried duct banks and in single duct runs
 - 2. Conduit, ducts, and duct accessories for concrete encased ducts.
 - 3. Raceways, fittings, boxes, enclosures, and cabinets for substation electrical wiring.
 - 4. Cable trench.

1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. ENT: Electrical nonmetallic tubing.
- C. FMC: Flexible metal conduit.
- D. IMC: Intermediate metal conduit.
- E. RGS: Rigid galvanized Steel conduit.
- F. RNC: Rigid nonmetallic conduit.

1.4 QUALITY ASSURANCE

- A. Comply with ANSI C2.
- B. Comply with NFPA 70.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver ducts to Project site with ends capped. Store nonmetallic ducts with supports to prevent bending, warping, and deforming.

1.6 COORDINATION

- A. Coordinate layout and installation of ducts, cable trench, and boxes with final arrangement of other below grade items, site grading, and surface features as determined in the field.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND TUBING

- A. RGS: ANSI C80.1.
- B. IMC: ANSI C80.6.
- C. EMT: ANSI C80.3.
- D. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.

2.2 NONMETALLIC CONDUIT AND TUBING (PVC)

- A. RNC: NEMA TC 2, Type EPC-40-PVC or Type EPC-80-PVC, UL 651, with matching fittings by same manufacturer as the conduit, complying with NEMA TC 3 and UL 514B.
- B. Duct Accessories:
 - 1. Duct Separators: Factory-fabricated rigid PVC interlocking spacers, sized for type and sizes of ducts with which used, and selected to provide minimum duct spacings indicated while supporting ducts during concreting or backfilling.
 - 2. Warning Tape: Underground-line warning tape.

2.3 BOXES, ENCLOSURES, AND CABINETS

- A. Surface Mounted or Exposed Boxes: Cast aluminum or cast iron, with steel or aluminum cover plates. Crouse-Hinds, Russel & Stoll, or similar approved types. Sheet metal boxes are not acceptable.
- B. Junction Boxes:
 - 1. Indoor: NEMA 250, Type 1, galvanized-steel box with removable interior panel and finished inside and out with manufacturer's standard enamel.
 - 2. Outdoor: NEMA 250, Type 3R, stainless steel or aluminum box with removable interior back panel.
 - 3. Hinged door in front cover with latch.
 - 4. Additional accessories as indicated on the drawings.

2.4 CABLE TRENCH

- A. Cable trench shall be precast concrete underground utility trench system for electrical cabling.

- B. Comply with ASTM C857-07 Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures and ASTM C858-07 Specifications for Underground Precast Utility Structures.
- C. Cable trench may be modular or one piece construction.
- D. One piece system shall consist of precast concrete U-shaped bases and removable covers. The U-shaped bases shall have openings in the bottom for conduit entrance. The system shall be design to support a minimum of 200 lbs per square foot live load for pedestrian.
- E. Covers shall be furnished in light weight sections, sized to permit removal by one person. Provide tools for removal of covers.
- F. Trench interior dimensions and layout shall be as indicated in the drawings.
- G. Manufacturers: Trenwa or approved equal.

2.5 CONCRETE

- A. Concrete shall have a twenty-eight (28)-day compressive strength of at least 2000 psi. The aggregate shall be less than three-fourths (3/4) inch in diameter.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below, unless otherwise indicated:
 - 1. Exposed Conduit: Rigid galvanized steel (RGS) conduit.
 - 2. Straight Runs of Underground Conduit: RNC, Type EPC-40-PVC, direct buried.
 - 3. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.
 - 4. Connection to Equipment: RGS or LFMC.
- B. Indoors: Comply with the following applications, unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage: EMT.
 - 2. Exposed and Subject to Severe Physical Damage: RGS. Includes raceways as indicated on the drawings.
 - 3. Boxes and Enclosures: NEMA 250, Type 1.
 - 4. Connection to Equipment: FMC.
- C. Minimum Raceway Size: 1/2-inch trade size for indoor and 1 inch for outdoor installations unless indicated otherwise.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings.

- E. Flexible conduit: Conduit shall be steel reinforced and liquid tight. Maximum runs of metallic flexible conduits shall be 18 inches at equipment connections.

3.2 GENERAL INSTALLATION

- A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Section are stricter.
- B. Conduits shall be installed in a workmanlike manner. Whenever possible, the runs shall be parallel to the centerlines of structures or parallel to each other in the case do multiple runs. Underground runs shall be as direct as possible, using the least number of bends as practical.
- C. Factory or field bends made with a hydraulic bender shall be used for conduit larger than one (1) inch. Minimum bend radius shall be seven (7) times the diameter of the conduit.
- D. All exposed ends of conduit shall be protected during construction to prevent entrance of any foreign material or moisture.
- E. Burrs or sharp projections on shall be removed.
- F. Round, flexible, nylon-covered tapes or nylon ropes shall be used for fishing and wire-pulling in conduit.
- G. Where conduit enters a box, vault, cable trench, or any other fitting or termination, a bushing or bell end shall be installed to protect the cable from abrasions. At all points where the conduit terminates, the bushing shall be of the grounding type to provide an effective connection to ground.
- H. Install no more than the equivalent of four quarter-bends (360 degree total) in any conduit run between outlet and outlet, fitting and fitting, or between outlet and fitting, including bends located immediately at the outlet or fitting. Pull boxes shall be installed, if required, to limit any run of conduit to four (4) quarter-bends (360 degree total).
- I. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- J. Complete raceway installation before starting conductor installation.
- K. Before backfilling operations are begun, the Contractor shall inspect all trenches, conduit, cable placement, risers, and other construction not accessible after backfilling. If corrections are required, a second inspection shall be made after completion of the changes.
- L. Conduits shall be installed clean and free from debris.
- M. Conduit ends shall be sealed with foam or ductseal as indicated on the bill of material.

3.3 SUPPORTS

- A. Outdoor above grade conduits shall be supported at least every six (6) feet horizontally and eight (8) feet vertically. Fittings and outlets that are for conduit feed through shall have the attached conduit supported within three (3) feet. Eighteen (18) inches shall be the distance between conduit support and outlets that contain devices (such as receptacles) or boxes that support fixtures.
- B. Conduit runs in control buildings shall have supports at a maximum of eight (8) feet horizontally and vertically.
- C. Drilling through junction boxes is not acceptable for NEMA ratings equal to three (3) or above. Unitstrut C-channel shall be used for mounting unless otherwise indicated on the drawings.
- D. Conduits shall be bent so that no more than four (4) inches separate the conduit and the adjacent surface.

3.4 INSTALLATION OF DIRECT BURIED CONDUIT

- A. Control and equipment power conduits shall be buried a minimum of eighteen (18) inches below grade. Conduits shall be installed below the ground grid
- B. Excavate trench bottom to provide firm and uniform support for conduit, Trench bottom shall be smooth or filed with two (2) inches of sand to provide a smooth bottom.
- C. First six (6) inches of backfill shall be sand or soil free of materials that would damage or be corrosive to the conduit.
- D. Restore any ground grid conductors to original condition before backfilling trench.
- E. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run. Firmly hand tamp backfill around conduit to provide maximum supporting strength.
- F. Restore substation surfacing to original condition after trench is backfilled.
- G. Install risers at junction boxes and building entrances as shown in the drawings.

3.5 INSTALLATION OF CONCRETE ENCASED CONDUIT

- A. Concrete encased conduits shall be installed at the depth and spacing as indicted on the drawings. Minimum concrete encasement envelope shall also be as indicated on the drawings.
- B. Conduit, conduit fittings, and conduit boxes to be embedded in concrete shall be held securely in place while the concrete is being placed. All concrete shall be cleaned from the inside of conduit boxes after the forms have been removed, and threads for attaching devices an cover shall also be cleaned.
- C. Separator Installation: Space separators close enough to prevent sagging and deforming of ducts, with not less than 4 spacers per 20 feet of duct. Secure separators to earth and to ducts to

prevent floating during concreting. Tie entire assembly together using fabric straps; do not use tie wires or reinforcing steel that may form conductive or magnetic loops around ducts or duct groups.

- D. Concreting Sequence: Pour each run of envelope between manholes or other terminations in one continuous operation. Start at one end and finish at the other, allowing for expansion and contraction of ducts as their temperature changes during and after the pour. If more than one pour is necessary, terminate each pour in a vertical plane and install 3/4-inch reinforcing rod dowels extending 18 inches into concrete on both sides of joint near corners of envelope.
- E. Pouring Concrete: Spade concrete carefully during pours to prevent voids under and between conduits and at exterior surface of envelope. Do not allow a heavy mass of concrete to fall directly onto ducts. Use a plank to direct concrete down sides of bank assembly to trench bottom. Allow concrete to flow to center of bank and rise up in middle, uniformly filling all open spaces. Do not use power-driven agitating equipment unless specifically designed for duct-bank application
- F. Reinforcement: Reinforce concrete-encased duct banks where they cross disturbed earth and where indicated. Arrange reinforcing rods and ties without forming conductive or magnetic loops around ducts or duct groups.
- G. Forms: Use walls of trench to form walls of duct bank where soil is self-supporting, and concrete envelope can be poured without soil inclusions; other wise use forms.
- H. Stub-ups: Use manufactured duct elbows for stub-ups at risers and equipment and at building entrances through the floor, unless otherwise indicated. Extend concrete encasement throughout the length of the elbow.
- I. The ends of conduits shall be protected to prevent the entrance of any foreign materials.
- J. Backfilling: When the backfill above the concrete must be compacted, the concrete shall cure for seven (7) days before backfilling. When compaction of the backfill is not required, he concrete shall cure for twenty-four (24) hours before backfilling.

3.6 CABLE TRENCH INSTALLATION

- A. Unloading and Storage: Care should be taken in unloading and storage of trench materials. All material shall be stored on level ground.
- B. Preparation and Excavation: Excavate trench to a minimum width for the specified size of trench and to a sub-grade elevation of 2-3" below the bottom of the trench, Cut wall as vertical as possible. Place clean backfill material such as sand, level the material, and compact to the bottom trench elevation.
- C. Follow manufacturer's instructions for placing component system or one piece trench units.
- D. Place a 4" bed of sand in the bottom of the trench to form a level bottom just covering the support base.

3.7 PROTECTION

- A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 - 2. Repair damage to paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION 337233.33

INDIANOLA MUNICIPAL UTILITIES REPLACE 69KV LINE RELAYS

SECTION 337243 – SUBSTATION CONTROL CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Control wires and cables.

1.3 DEFINITIONS

- A.
 - ANSI American National Standards Institute.
 - ASTM American Society for the Testing of Materials
 - ICEA Insulated Cable Engineers Association
 - IEEE Institute of Electrical and Electronics Engineers
 - NEMA National Electric Manufacturers Association
 - NFPA National Fire Protection Association
 - UL Underwriters Laboratories

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.

1.5 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Copper Conductor: Stranded, bare (per ASTM B3) or tinned (per ASTM B33) copper. Stranding shall be per ASTM B8 class B (7 strand) or class C (19 strand).
- B. Multi-conductor Control Cable:
1. Service Conditions: Designed for service at a maximum continuous operating temperature of 90 degrees C in dry and damp locations or 75 degrees C in wet locations. All control cables shall be suitable for installation in conduits, ducts, trays, or direct buried. Cables shall be resistant to damage from heat, flame, moisture, oil, sunlight, and mechanical abrasion which can occur in an electrical substation environment.
 2. Multi-conductor Control Cable: Rated 600 volt, Type TC, and meet the requirements of ICEA S-73-532. Individual conductors shall be stranded copper with a minimum of 30 mils of cross-linked polyethylene flame-retardant insulation. The insulated conductors shall have an overall jacket. The jacket shall be black in color and a minimum of 60 mils of a flame retardant material. When required, the cable shall include a 5 mil corrugated copper tape shield, applied longitudinally.
 3. Multi-conductor Color Code: Per ICEA Method 1, Table K-2. Color codes shall be as follows for control circuits and DC supply circuits:

4 and 12 Conductor Cables

<u>Conductor Number</u>	<u>Base Color</u>	<u>Tracer Color</u>
1	Black	
2	Red	
3	Blue	
4	Orange	
5	Yellow	
6	Brown	
7	Red	Black
8	Blue	Black
9	Orange	Black
10	Yellow	Black
11	Brown	Black
12	Black	Red

2 Conductor Cables

<u>Conductor Number</u>	<u>Base Color</u>
1	Black
2	White

- C. Twisted Pair Control Cable (where required): Rated 300 volts, Type PLTC. Individual conductors shall be stranded copper with a polyvinyl chloride or cross-linked polyethylene flame-retardant insulation. The insulated conductor assembly shall be covered with a shield and have an overall jacket. The jacket shall be flame retardant.

- D. Internal Panel or Equipment Wiring For Field Installation: 600 volt, #12 AWG, 65 strand, copper wire with cross-linked polyethylene, type SIS insulation. Color to be gray unless noted otherwise on the drawings.

2.2 ACCESSORIES

- A. Lugs: Non-Insulated ring type insulated lugs. Ring lug terminals shall be Thomas & Betts or Burndy. NOTE: No slotted (spade type) terminal connectors shall be used.
- B. Cable Identification Tags: Panduit part no. SSM2S-C, SSM2S-D or approved equal. Tags shall be hand lettered using an ultrafine point, black ink, permanent marking pen as manufactured by Sharpie or approved equal.
- C. Cable Ties: Black plastic, weather and ultraviolet resistant, Panduit type PLT or approved equal.
- D. Wire Labels: All wires shall be labeled at both ends with heat shrink machine-printed markers. Each marker shall clearly indicate the exact individual wire designation as shown on the cable connection diagrams. Non-heat shrink markers may be permitted on a case-by-case basis upon request. Markers shall face out and will be labeled to be read with minimal effort.
- E. Cable Shield Bond Connections: Tyco Electronics Termi-Foil terminals and splices for aluminum or copper foil or strip, catalog no. 329254, with barrel for #10-#12 AWG wire. Install Termi-Foil connectors with Tyco Electronics Termi-Foil Hand Crimping Tool, catalog no. 68026.
- F. Terminations on Phoenix Terminal Blocks: When required by the manufacturer, use ferrules manufactured by Phoenix Contact, correctly sized for the conductor to be landed on that terminal.

PART 3 - EXECUTION

3.1 INSTALLATION OF CONTROL CABLES

- A. All wiring between the various pieces of equipment shall be installed as shown on the plans. All wiring shall be enclosed in raceway, cable trays, or wireways of the size specified on the plans or as approved by Engineer.
- B. The Cable Schedule, which is included in the drawings, lists power, control, and communications cables necessary for this installation. The Schedule shows the endpoints of each circuit, the number of conductors, size of the conductors, and the approximate lengths. The lengths are not cutting lengths, but are included only as an aid in laying out the circuits.
- C. Cable jackets shall be removed using the appropriate cable tool which has a settable cutter adjusted so as not to damage the conductor insulation. Conductor insulation shall be removed using the appropriate stripping tool adjusted so as not to damage the wire strands. Knives shall not be used on any cables. Any cables or wire damaged during installation shall be replaced at Contractor's expense.

- D. No cable shall be installed until the conduits for the particular cable runs have been completely installed, thoroughly cleaned and mandreled.
- E. Sue pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway. Cable lubricants recommended by the cable manufacturer may be used as an aid to the pulling of cable. Grease or other materials harmful to cable insulation shall not be allowed.
- F. All cables in each conduit shall be pulled simultaneously, using cable grips and swivels or other devices subject to the approval Engineer. Cable tension shall not exceed the maximum tension recommended by the cable manufacturer. Cables shall always be protected from mechanical injury and from moisture at the unprotected ends.
- G. Conductors shall be continuous from terminal to terminal. No splices will be permitted.
- H. Care must be taken not to have the conductors pulled tight or kinked in the conduits or boxes. Where control wires from more than one conduit pass through a common pull box, the group of wires from each conduit shall be bound together with tie wraps spaced at six inch intervals.
- I. All cable and wire shall be installed in a workmanlike manner. Cables shall be neatly trained, without interlacing, in all trays and boxes. Sufficient lengths of cable shall be pulled into equipment panels, boxes, etc., to permit a neat arrangement. Groups of control wires carried in the same conduit to a terminal block or like termination point shall, after leaving the conduit, be formed and firmly, but not tightly, tied with cable tie wraps.
- J. Cable forming shall be done in a manner that will not permit sharp bends over conduit bushings. The bending radius in any cable shall not be less than the minimum bending radius recommended by the cable manufacturer. Damaged or out-of-place cable shall be replaced at the Contractor's expense.
- K. Multi-conductor cable jackets shall be removed as required to train and terminate the conductors. In control cabinets, the cable jacket shall be left on the cable, as far as possible, to the point of the first conductor branch. At relay panels the cable jackets shall be removed to within 3 inches of the entrance to the panel or, in the case of existing substations, removed in a manner similar to existing cable jackets. Cables shall be clamped or secured in a manner to avoid tension on individual conductors or terminals. Spare conductors shall be left long enough to reach any terminal.
- L. Insulated conductors from which the jacket is removed shall be neatly trained in bundles and the bundle firmly but not tightly tied, using cable tie wraps made for this purpose. The individual conductors, including all spare conductors, of the cables shall be unlaced prior to tying in bundles.
- M. Identify all cables at terminations and in all pull boxes. Cable tags shall bear the corresponding cable number shown on the Cable Schedule. Cable numbers shall be written legibly with a permanent marker.
- N. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

- O. Arrange cables in parallel and fasten each cable in place as required to maintain cables in parallel runs.
- P. Install all jumpers as shown on wiring and connection diagrams.
- Q. Bundle cables in the cable tray where the cables pass from the tray to relay panels so that they can pass through one opening in the tray at each side of the relay panel.
- R. Install dropout fittings to protect communications cables at exits from communication cable tray to relay panels.
- S. All communication cables that extend from relay panel to relay panel or from a relay panel to equipment located elsewhere within the control building shall be installed in the overhead communication cable tray.

3.2 WIRE TERMINATIONS

- A. Extra care shall be exercised in the use of crimp-on terminal connectors to make certain that each wire is firmly attached to the connector. Use only controlled cycle compression tools supplied by the manufacturer of the ring lug being used (Thomas & Betts or Burndy). Conductor insulation shall be squarely and evenly cut and it shall be continuous with the connector barrel.
- B. Cable shields, when present, shall be terminated by connecting the drain wire or corrugated copper tape shield to a ground bus with a compression terminal. Approved termination methods for corrugated tape shields include Tyco Electronics Termini-foil terminals (installed with controlled-cycle compression tools manufactured expressly for that purpose) and the BSW Floating Bond manufactured by Electric Motion Company, Inc. Cable shields may be terminated at one or both ends depending on the application and on the substation design. The proper method will be noted on the drawings or defined in the Special Conditions.
- C. Solderless ring-type terminal lugs shall be used to connect all wires #8 AWG and smaller to studs.
- D. Terminations on larger conductors shall have at least two indentations.
- E. Wires terminated on Phoenix terminal blocks shall have the correct size of Phoenix ferrule installed to prevent individual strands from straying and making contact with adjacent wires and terminals.

3.3 ACCESSORIES

- A. Identify all cables at terminations and in all pull boxes. Cable tags shall bear the corresponding cable number shown on the Cable Schedule. Cable numbers shall be written legibly with a permanent marker.

3.4 REMOVALS

- A. All cables and wires that are disconnected and not reused shall be completely removed from panels, wireways, and wire looms.

END OF SECTION 337243

MEMORANDUM

To: IMU Board of Trustees of the Electric, Water and Communications Utilities
From:
Date: November 12, 2024
Subject: Approval of September Financial Report

Recommendation:

Attachments: 1. 0924 Financial Report

Water Utility Financial Summary
September 30, 2024

600 WATER OPERATING FUND

	FY24		
	Budget	YTD Actual	% of Budget
Water Service Sales	3,165,800	741,865	23.43%
Other Water Revenue	566,800	101,444	17.90%
Total Revenue:	3,732,600	843,309	
Water O&M Expense	2,234,273	551,976	24.70%
Water O&M Transfers Out	1,190,000	297,500	25.00%
YTD Depreciation		152,584	
Total Expense, Transfers & Depreciation:	3,424,273	1,002,060	
Beginning Net Position		14,444,384	
Net Surplus (Deficit)		(158,751)	
Ending Net Position		14,285,633	

700 WATER CAPITAL FUND

From Water Operations	1,190,000	297,500	25.00%
Total Transfers In:	1,190,000	297,500	
Water Capital Expense	1,205,000	69,293	5.75%
Total Expense:	1,205,000	69,293	
Beginning Net Position		2,965,943	
Net Surplus (Deficit)		228,207	
Ending Net Position		3,194,150	

780 WATER IMPROVE FUND

Beginning Net Position		75,000	
Net Surplus (Deficit)		0	
Ending Net Position		75,000	

WATER CASH ON HAND
(110 days or greater)

O&M	\$	579,515
Capital	\$	3,358,055
Debt Service	\$	75,000
340 days	\$	4,012,571

FY25		
Budget	YTD Actual	% of Budget
3,473,300	896,916	26%
590,300	161,272	27%
4,063,600	1,058,188	
2,363,113	580,513	25%
1,950,600	487,650	25%
	161,344	
4,313,713	1,229,506	
	14,122,596	
	(171,318)	
	13,951,278	

	Gallons Billed FY24-25	Gallons Billed FY23-24
July	40,148,770	36,713,420
August	32,039,780	33,852,270
September	36,328,770	35,871,910
October		
November		
December		
January		
February		
March		
April		
May		
June		
YTD TOTAL	108,517,320	106,437,600
	2.0%	

	Inventory on Hand FY24-25	Inventory on Ha FY23-24
July	\$ 408,909	\$ 131,441
August	\$ 401,413	\$ 124,926
September	\$ 390,131	\$ 118,941
October		
November		
December		
January		
February		
March		
April		
May		
June		
YTD AVG	\$ 400,151	\$ 125,103
	219.9%	

IMU Admin/US Financial Summary
September 30, 2024

620 ADMIN & UTILITY SERVICES

	FY24			FY25		
	Budget	YTD Actual	% of Budget	Budget	YTD Actual	% of Budget
Admin/US Revenue	1,297,918	344,324	26.53%	1,431,700	358,422	25%
Total Revenue:	1,297,918	344,324		1,431,700	358,422	
Admin/US O&M Expense	1,297,918	322,688	24.86%	1,431,700	357,322	25%
YTD Depreciation		8,848			8,848	
Total Expense, Transfers & Depreciation:	1,297,918	331,536		1,431,700	366,170	
Beginning Net Position		203,175			224,494	
Net Surplus (Deficit)		12,788			(7,748)	
Ending Net Position		215,963			216,746	
855 LIABILITY INS FUND						
Beginning Net Position		9,099			9,099	
Net Surplus (Deficit)		0			0	
Ending Net Position		9,099			9,099	

US/ADMIN CASH ON HAND

O&M \$ 538,381

Electric Utility Financial Summary
September 30, 2024

630 ELECTRIC OPERATING FUND

	FY24			FY25		
	Budget	YTD Actual	% of Budget	Budget	YTD Actual	% of Budget
Electric Service Sales	15,927,772	5,275,710	33.12%	16,405,606	4,792,298	29%
Other Electric Revenue	1,883,900	294,263	15.62%	1,937,300	574,511	30%
Total Revenue:	17,811,672	5,569,973		18,342,906	5,366,809	
Electric O&M Expense	16,178,121	3,865,105	23.89%	16,324,354	4,751,542	29%
Electric O&M Transfer Out	3,653,672	913,418	25.00%	3,231,202	807,800	25%
YTD Depreciation		409,369			415,966	
Total Expense, Transfers & Depreciation:	19,831,793	5,187,892		19,555,556	5,975,308	
Beginning Net Position		35,046,761			33,124,367	
Net Surplus (Deficit)		382,081			(608,498)	
Ending Net Position		35,428,842			32,515,869	

730 ELECTRIC CAPITAL FUND

Electric Capital Revenue	1,237,500	296,607	23.97%	1,224,100	458,025	37%
From Electric Operations	2,500,000	625,000	25.00%	2,500,000	625,000	25%
Total Revenue and Transfers In:	3,737,500	921,607		3,724,100	1,083,025	
Electric Capital Expense	2,886,300	144,361	5.00%	1,844,700	313,809	17%
Total Expense:	2,886,300	144,361		1,844,700	313,809	
Beginning Net Position		8,062,135			11,158,161	
Net Surplus (Deficit)		777,246			769,216	
Ending Net Position		8,839,381			11,927,377	

793 ELECTRIC DEBT SERVICE

From Electric Operations	1,153,672	288,418	25.00%	731,202	182,801	25%
Total Transfers In:	1,153,672	288,418		731,202	182,801	
Electric Debt Service	1,153,672	135,275	11.73%	731,202	135,275	19%
Total Expense:	1,153,672	135,275		731,202	135,275	
Beginning Net Position		1,368,865			1,369,293	
Net Surplus (Deficit)		153,143			47,526	
Ending Net Position		1,522,008			1,416,819	

ELECTRIC CASH ON HAND
(110 days or greater)

O&M	\$ 6,423,650
Capital	\$ 10,117,087
Debt Service	\$ 1,416,819
	\$ 17,957,557

347 days

	Kwhs Billed FY24-25	Kwhs Billed FY23-24
July	11,504,883	10,450,789
August	11,693,918	11,547,802
September	12,751,518	12,959,519
October		
November		
December		
January		
February		
March		
April		
May		
June		
YTD TOTAL	35,950,319	34,958,110
	2.8%	

	Inventory on Hand FY24-25	Inventory on Hand FY23-24
July	\$ 1,678,539	\$ 1,276,213
August	\$ 1,646,986	\$ 1,337,147
September	\$ 1,656,391	\$ 1,396,439
October		
November		
December		
January		
February		
March		
April		
May		
June		
YTD AVG	\$ 1,660,639	\$ 1,336,600
	24.2%	

Fiber Utility Financial Summary
September 30, 2024

640 FIBER OPERATING FUND

	FY24			FY25		
	Budget	YTD Actual	% of Budget	Budget	YTD Actual	% of Budget
Fiber Service Sales	4,823,000	1,188,809	24.65%	5,220,000	1,284,193	25%
Other Fiber Revenue	662,050	102,699	15.51%	410,050	46,747	11%
Total Revenue:	5,485,050	1,291,508		5,630,050	1,330,940	
Fiber O&M Expense	3,574,751	937,693	26.23%	3,593,293	916,074	25%
Fiber O&M Transfer Out	1,473,246	514,728	34.94%	2,081,528	361,215	17%
YTD Depreciation		91,009			70,319	
Total Expense, Transfers & Depreciation:	5,047,997	1,543,431		5,674,821	1,347,608	
Beginning Net Position		(3,464,668)			(3,242,690)	
Net Surplus (Deficit)		(251,923)			(16,668)	
Ending Net Position		(3,716,591)			(3,259,358)	

740 FIBER CAPITAL FUND

Fiber Capital Revenue	0	8,319			282	
From Fiber Operations	310,833	233,125	75.00%	955,000	79,583	8%
Total Revenue and Transfers In:	310,833	241,444		955,000	79,865	
Fiber Capital Expense	2,026,500	766,602	37.83%	955,000	254,985	27%
YTD Depreciation		78,205			81,962	
Total Expense, Transfers & Depreciation:	2,026,500	844,807		955,000	336,948	
Beginning Net Position		938,067			(665,586)	
Net Surplus (Deficit)		(603,364)			(257,083)	
Ending Net Position		334,703			(922,669)	

795 FIBER DEBT SERVICE

From Fiber Operations	1,126,413	281,603	25.00%	1,126,528	281,632	25%
Total Transfers In:	1,126,413	281,603		1,126,528	281,632	
Fiber Debt Service	1,126,413	0	0.00%	1,126,528	0	0%
Total Expense:	1,126,413	0		1,126,528	0	
Beginning Net Position		0			271	
Net Surplus (Deficit)		281,603			281,632	
Ending Net Position		281,603			281,903	
*Fund 640 Ending Fund Balance		(3,434,988)			(2,977,455)	
*Fund 740 Ending Fund Balance		334,703			(922,669)	
		(3,100,285)			(3,900,124)	

FIBER CASH ON HAND	O&M	\$	40,037
(110 days or greater)	Capital	\$	127,820
	Debt Service	\$	281,903
29 days		\$	449,761

The Fiber Utility fund has a deficit fund balance of (\$3,900,124).
The deficit fund balance is the result of start-up costs incurred to initiate the utility service.
The deficit will be eliminated in future periods through net customer charges.

	Subscriptions FY24-25	Subscriptions FY23-24	YOY Increase %	
July	4,177	3,872	7.9%	
August	4,204	3,908	7.6%	
September	4,268	3,930	8.6%	
October				
November				
December				
January				
February				
March				
April				
May				
June				
YTD AVG	4,216	3,903		
	8.0%			

	Inventory on Hand FY24-25	Inventory on Hand FY23-24	YOY Increase %	
July	\$ 1,819,505	\$ 1,858,586	-2.1%	
August	\$ 1,823,670	\$ 1,878,531	-2.9%	
September	\$ 1,875,146	\$ 1,859,378	0.8%	
October				
November				
December				
January				
February				
March				
April				
May				
June				
YTD AVG	\$ 1,839,440	\$ 1,865,498		
	-1.4%			

September 2024

You should expect to see YTD revenue and expenses to be 3/12 (or 25%) of Budget.

Health Insurance Fund Balance on September 30, 2024 is \$2,848,942

FY25 beginning balances will be updated upon completion of the FY24 financial audit.

Water and Electric service revenue may fall ahead or behind budget due to seasonal fluctuations.

We are reporting each departments net position, which is cash and all other assets (such as billing receivables and capital assets) less accumulated depreciation and liabilities.

Cash on Hand - 110 days or more of cash on hand based on the recommended 90-120 days to maintain our bond rating (A-).

This report is on a modified cash basis, with monthly (non-cash) depreciation included.

Water Notes: Capital expenses may fall ahead or behind budget due to timing of project completion and payments.

US/Admin Notes: The 620 fund is intended to be a zero balance fund and doesn't have any significant stand alone obligations. Any balance or deficit here is timing related or is city services collected from the current month to be transferred in the following month.

Electric Notes: O&M Expenses ahead of budget due to work on Turbine #8.
Capital expenses may fall ahead or behind budget due to timing of project completion and payments.

Fiber Notes: Inventory on hand includes both customer premise equipment, \$1,571,788 and stock supply inventory, \$303,358.
Capital expenses may fall ahead or behind budget due to timing of project completion and payments.

Petrotech Proposal

Purchaser **Indianola Municipal Utilities**

Project contact **Jared A. Kline**
Email: jakline@peengr.com

Project name **Turbine 8 Control Replacement Project**

Petrotech quote number **CO22-126001-007**

Revision level **0**

Date issued **September 26, 2024**

Scope summary Troubleshooting the vibration analysis equipment was grounding

Petrotech Project Manager Cristian Decia, Tel.: 281-220-3078
Email: cdecia@petrotechinc.com

Petrotech Account Manager Ray Jilley, Tel.: 713-907-3497
Email: RJilley@petrotechinc.com

Prepared by Cristian Decia, Tel.: 281-220-3078
Email: cdecia@petrotechinc.com

Please submit all purchase orders to: OrderEntry@petrotechinc.com

or mail to: **Applications Engineering Manager**
151 Brookhollow Esplanade
New Orleans, LA 70123 USA

Proposal Contents

Section 1 Detailed Scope of Supply
Section 2 Commercial



Section 1. Detailed Scope of Supply

DETAILED SCOPE OF SUPPLY

ITEM 1.0 – SECTION, TROUBLESHOOTING THE VIBRATION ANALYSIS EQUIPMENT WAS GROUNDING

ITEM	QTY.	DESCRIPTION
1.1		SERVICE INCLUDED IN ITEM 1.0
1.1.1	12.5 Hrs.	One (1) Petrotech Turbomachinery Controls (TMC) Installation supervisor on-site labor to troubleshoot grounding problems caused by the vibration analysis equipment.
1.1.2	12.5 Hrs.	One (1) Petrotech Turbomachinery Controls (TMC) Commissioning Engineer on-site labor to troubleshoot grounding problems caused by the vibration analysis equipment.
1.2.3	1 Lot	Include proportional expenses for: Hotel: 2 people / 1 night Per diem: 2 people / 1 day Car rental: 1 car / 1 day
1.2.4	1 Lot	Petrotech project management services to provide customer interface throughout the change order process.

Section 2. Commercial

Pricing

Base price includes the following items:

Item 1.0 As described in a detailed scope of service, Item 1.0.

Price Item 1.0: \$ 8,618.00

Shipment

Service already done

Currency

All currency listed in this proposal is U.S. Dollars

Proposal Validity

10 days

Shipping Terms

Per current contract

Crating Instructions

☒ DOMESTIC ☐ SEA ☐ AIR ☐ UNCRATED

Payment Terms

Per current contract

Terms and Conditions

Per current PO terms and conditions

Warranty

Per current contract

Taxes

Petrotech's quote is exclusive of all taxes. This includes but is not limited to, state, county, contractor, sales, or any other similar levy that may be required.

Additional Work

Any additional work, including delays caused by factors out of Petrotech's control, shall be billed on a Time & Material basis in accordance with Petrotech published service rates.

Confidentiality

This proposal is an offer to sell. It is a commercial response to provide specific application information and documentation. This offer is considered confidential and may contain forward-looking statements or proprietary information. By acceptance of the proposal, the purchaser agrees to maintain vendor confidentiality, not distribute beyond the purchaser's company or its assigns, or reuse in whole or part beyond the original purchase realization scope.

Indianola Municipal Utilities
RESOLUTION NO.

Resolution to Approve Change Order No. 5 for Turbine 8 Control Project

WHEREAS, Petrotech issued a recommendation for a change of order to the Turbine 8 Control Replacement project, for time spent troubleshooting grounding problems caused by vibration monitoring equipment; and

WHEREAS, change order no. 5 to the construction contract with Petrotech has been prepared to formally amend the contract terms to encompass the change outlined above.

NOW, THEREFORE, BE IT RESOLVED BY THE IMU BOARD OF TRUSTEES OF INDIANOLA, IOWA,

That Change order no. 5 to the Construction Contract with Petrotech for this project is hereby approved; and

The total authorized compensation to Petrotech for this project is increased through approval of change order no. 5 as shown below:

Original Contract	\$599,914.00
Change Order No. 5	<u>\$8,618.00</u>
Total Revised Contract	\$666,542.00

PASSED AND APPROVED this 12th Day of November 2024

Deb White, Chairperson

ATTEST:

Monica Thompson, Board Secretary

MEMORANDUM

To: IMU Board of Trustees of the Electric, Water and Communications Utilities

From:

Date: November 12, 2024

Subject: Resolution Approving Agreement for engineering design and construction services for the East 3rd Water Main Improvements project

Recommendation:

Attachments:

1. RES 2024 Approving Engineering and Construction Services; East 3rd Water Main Improvements Project
2. IMU E 3rd Street Water Main Imps agreement

Indianola Municipal Utilities
RESOLUTION NO 2024-

**RESOLUTION APPROVING ENGINEERING AND CONSTRUCTION SERVICES; EAST 3RD WATER MAIN
IMPROVEMENTS PROJECT**

WHEREAS, Indianola Municipal Utilities determined that the East 3rd Water Main is in need of improvements; and

WHEREAS, Veenstra & Kimm Inc has prepared the attached agreement for Engineering and Construction Services; and

WHEREAS, it is the determination of the Indianola Municipal Utilities Board of Trustees that IMU should enter into the agreement as attached.

NOW, THEREFORE, BET IT RESOLVED by the Indianola Municipal Utilities Board of Trustees that the agreement is hereby approved and the Board Chair is authorized and directed to execute the agreement on behalf of Indianola Municipal Utilities.

Approved this 12th day of November 2024.

ATTEST:

Deb White, Chairperson

Monica Thompson, Board Secretary

ENGINEERING AGREEMENT FOR PROFESSIONAL SERVICES

EAST 3RD STREET WATER MAIN IMPROVEMENTS INDIANOLA MUNICIPAL UTILITIES INDIANOLA, IOWA

THIS AGREEMENT, made this _____ day of _____ 2024, by and between the **INDIANOLA MUNICIPAL UTILITIES**, Indianola, Iowa, hereinafter referred to as the **Owner**, party of the first part, and **VEENSTRA & KIMM, INC.** of West Des Moines, Iowa, a corporation organized and existing under the laws of the State of Iowa, hereinafter referred to as the **Engineers**,

WITNESSETH: THAT WHEREAS, the Indianola Municipal Utilities wishes to proceed with construction of **East 3rd Street Water Main Improvements**, hereinafter referred to as the **Project**, and

WHEREAS, the Owner desires to retain the Engineers to prepare construction plans and specifications and provide other necessary services in connection with the Project.

NOW, THEREFORE, it is hereby agreed by and between the parties hereto that the Owner does hereby retain the Engineers to act for and represent it in engineering matters, as set for hereinafter, involved in the Project. Such contract shall be subject to the following terms, conditions and stipulations, to wit:

1. **SCOPE OF PROJECT.** It is understood and agreed that the Project shall consist of an 8-inch diameter water main along East 3rd Street from South 4th to the end of East 3rd Street, the including all connections, valves, side street connections, water service connections, and fire hydrants, and miscellaneous associated work for a complete project.

It is further understood and agreed that the scope of the Project may be modified by mutual agreement of the parties hereto.

2. **DESIGN SURVEYS.** The Engineers shall complete all topographic surveys necessary for design of the Project and preparation of the plans and specifications. The Engineers shall use aerial photography for the development of plans.
3. **DESIGN CONFERENCE.** The Engineers shall attend a conference with the Owner, if necessary, to make decisions as to the details of design of the Project.

4. **PLANS AND SPECIFICATIONS.** The Engineers shall prepare such detailed plans and specifications as are reasonably necessary and desirable for construction of the Project. The specifications shall describe, in detail, the work to be done and materials to be used.

5. **PERMITS AND LICENSES.** The Engineers shall provide copies of plans and specifications, explanatory letters of transmittal, completion of required application forms and other information necessary to obtain an Iowa Department of Natural Resources permit for construction.

The Owner shall pay for all licenses and other costs associated with permits and licenses and said costs shall not be charged against the Engineer's maximum fee set forth hereinafter.

6. **ESTIMATES OF COST.** The Engineers shall prepare an Engineers' Estimate of Cost for the improvements to be constructed under the Project. The Engineers' Estimate of Cost is intended for the use of the Owner in financing the Project. The Engineers shall not be responsible if the contract(s) awarded for construction of the Project vary from the Engineers' Estimate of Cost.

7. **ADVERTISEMENT FOR BIDS.** The Engineers shall assist in the preparation of the notice to contractors and shall provide plans and specifications to prospective bidders. Publication costs shall be borne by the Owner.

8. **COSTS OF PLANS AND SPECIFICATIONS.** The Owner shall compensate the Engineers for the actual costs of the plans and specifications provided contractors, plan rooms and suppliers during Project bidding. The costs of plans shall be separate from the fee provisions under "**14. COMPENSATION**".

9. **BIDDING SERVICES.** The Engineers shall provide services during the bidding phase of the Project that will include the following:

- a. Notification of potential bidders of the upcoming Project and availability of plans and specifications.
- b. Distribute bidding documents and maintain bidders list.
- c. Respond to questions raised during the bidding period and prepare and issue addendum as appropriate to clarify, correct or change the bidding documents.
- d. Assist the City in evaluating alternate equipment submittals during and following the bidding phase of the Project.

10. AWARD OF CONTRACT. The improvements outlined in the Project shall be bid at not more than one letting. The Engineers shall have a representative present when the bids and proposals are opened and shall make tabulations of bids for the Owner and shall advise as to the responsiveness of the bidders, and assist in making the award of contracts. After the awards are made, the Engineers shall prepare the necessary contract documents. The Engineers shall not be responsible for advising the Owner as to the responsibility of any bidder.

11. GENERAL SERVICES DURING CONSTRUCTION. The Engineers shall provide general services during construction including:

- a. Conduct a preconstruction conference with the contractor and Owner prior to starting work on the Project.
- b. Attend conferences, as necessary, with the Owner and contractor as requested by the Owner.
- c. Assist in interpretation of plans and specifications.
- d. Review shop drawings and manufacturers' data.
- e. Settle disputes with the contractor regarding concurrence with the specifications and consult with Owner when the Engineers and contractor cannot resolve such dispute.
- f. Prepare change orders to construction contract documents, as necessary, during construction. All change orders are subject to approval of Owner.
- g. Process monthly partial payment estimates.
- h. Provide as-constructed plans to the Owner.

12. RESIDENT REVIEW.

- a. Resident review services is understood to include the detailed observation and review of work of the Contractors and materials to assure compliance with the plans and specifications.
- b. The Engineers shall provide resident review services by assigning resident engineers and/or engineering technicians to the Project for such periods reasonably required to ensure proper review of the construction work. On-site review shall take place on a part time basis during the construction work on the Project.

- 13. FINAL REVIEW.** The Engineers shall make a final review after construction is complete to determine that the construction complies with the plans and specifications. The Engineers shall certify to the Owner that construction is substantially in compliance with the plans and specifications.
- 14. COMPENSATION.** The Owner shall compensate the Engineers for their services by payment of the following fees:
- a. The fee for engineering design services for the Project as set out in **1. SCOPE OF PROJECT** through **10. AWARD OF CONTRACT**, shall be a fee on the basis of the standard hourly fees with a maximum not-to-exceed fee of Seventeen Thousand Five Hundred Dollars (\$17,500) without written authorization by the Owner. The standard hourly fees of the Engineers are shown in attached Exhibit A.
 - b. The fee for engineering services during construction as set out in **11. GENERAL SERVICES DURING CONSTRUCTION** and **13. FINAL REVIEW**, shall be determined on the basis of the standard hourly fees plus expenses of the personnel of the Engineers actually engaged in the performance of the services. The fee shall not exceed the sum of Four Thousand Eight Hundred Dollars (\$4,800) without written authorization by the Owner. The standard hourly fees of the Engineers are shown in attached Exhibit A.
 - c. For resident review services during construction as delineated in **12. RESIDENT REVIEW**, but excluding materials testing, the fee will be One Hundred and Eight Dollars (\$108) per hour. It is anticipated the construction will require 100 hours of resident review time and will not exceed Eleven Thousand Three Hundred Dollars (\$11,300).
 - d. The Owner shall compensate the Engineers for the cost of plans and distribution of plans as set forth in **8. COST OF PLANS AND SPECIFICATIONS** above as provided in Iowa Code Section 26.3(2). The reimbursement of the cost plans and distribution of plans as required under Iowa Code Section 26.3(2) is not included in the fees for services set forth under this Agreement.
- 15. PAYMENT.** The fee for work set out in **14. COMPENSATION** shall be billed and payable monthly during the course of the rendering of the services.
- 16. TIME OF COMPLETION.** The plans and specifications for the Project shall be completed within ninety (90) days after written authorization to proceed for the Project is issued by the Owner. The Project design will be completed to allow for Spring 2025 construction.

17. LEGAL SERVICES. The Owner shall provide the services of the Owner's Attorney in matters pertaining to this Project. The Engineers shall cooperate with the Attorney and shall comply with his requirements as to form of contract documents and procedures relative to them.

18. SERVICES NOT INCLUDED. Services not included under this Agreement are as follows:

- a. Laboratory tests.
- b. Services related to or regarding arbitration or litigation of the construction contract between the construction contractor and the Owner regarding any part of the Project.
- c. Services relating to the acquisition of easements, permanent or construction. Legal surveys, property surveys and easement surveys are not included in this Project cost.
- d. Construction testing services.
- e. Soil borings, soil testing and contaminated soil investigations.
- f. Environmental and archaeological studies.
- g. Services required for the evaluation of and determination to accept defective work by Contractor including required re-design services.
- h. Assistance in connection with bid protests, rebidding or renegotiating contracts for construction, materials, equipment, or services, only so long as the original work is reasonably consistent with the Owner's program or other instruction.
- i. Providing assistance in resolving any Hazardous Environmental Condition in compliance with current Laws and Regulations.
- j. Construction staking.
- k. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.

19. SUSPENSION.

- a. The Owner agrees that the Engineer is not responsible for damages arising directly or indirectly from any delays for causes beyond the Engineer's control. For purposes of this Agreement, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions or other natural disasters or acts of God; fires, riots, war or other emergencies; failure of any government agency to act in a timely manner; failure of performance by the Owner; or discovery of any hazardous substances or differing site conditions. In addition, if the delays resulting from any such causes increase the cost or time required by the Engineer to perform its services in an orderly and efficient manner, the Engineer shall be entitled to a reasonable adjustment in schedule and compensation.
- b. If Engineer's services are extended by Contractor's actions or inactions for more than the scheduled final construction completion, as defined in the Contract Documents, through no fault of the Engineer, the Engineer will be entitled to equitable and agreeable adjustment of rates and amounts of compensation provided in this Agreement.

20. CHANGES. If after the plans and specifications are completed and approved by the Owner, the Engineers are required to change the plans and specifications because of changes made by the Owner, the Engineers shall receive additional compensation for making such changes. The compensation for such changes shall be based upon the standard hourly fees as shown on Exhibit A, plus expenses for personnel of the Engineers actually engaged in making the changes.

21. EXTRA WORK. Fees stated in this Agreement cover the specific services outlined in this Agreement for the Project. If the Owner requires additional services of the Engineers in connection with the Project, or changes or modifications in the Project, the Engineers shall receive additional compensation for said services. Such additional compensation shall be at the standard hourly fees for personnel of the Engineers, as shown on Exhibit A, plus expenses for personnel engaged in the authorized extra work.

22. INDEMNIFICATION. The Engineers shall and hereby agree to hold and save the Owner harmless from any and all claims, settlements, and judgments, to include all reasonable investigative fees, attorneys' fees, suit and court costs for personal injury, property damage, and/or death arising out of the Engineers' or any of its agents', servants', and employees' errors, omissions or negligent acts for services under this Agreement, and for all injury and/or death to any and all of the Engineers' personnel, agents, servants, and employees occurring under the Workers' Compensation Act of the State of Iowa.

23. INSURANCE. The Engineers shall furnish the Owner with certificates of insurance by insurance companies licensed to do business in the State of Iowa, upon which the Owner is endorsed as an additional named insured, in the following limits. It must be clearly disclosed on the face of the certificates that the coverage is on an occurrence basis:

General Liability*	\$1,000,000/2,000,000
Automobile Liability	1,000,000
Excess Liability (Umbrella)*	8,000,000/8,000,000
Workers' Compensation, Statutory Benefits Coverage B	1,000,000
Professional Liability**,***	3,000,000/3,000,000

*Occurrence/Aggregate

**The Owner is not to be named as an additional insured

***Claims made basis

- 24. TERMINATION.** Should the Owner abandon the Project before the Engineers have completed their work, the Engineers shall be paid proportionately for the work and services performed until the date of termination.
- 25. BETTERMENT.** When a Change Order is necessitated by an act or omission of Engineer or an error in the design of the Project, responsibility for such act, omission, or error shall be determined in good faith by Owner and Engineer. To the extent that such act, omission, or error arose out of the lack of quality professional services provided by Engineer or of the lack of professional quality deliverables prepared by Engineer, Owner shall be entitled to an amount equal to the difference between the actual cost of the change work and the estimated cost of the change work (less added value to the Owner) if there had been no such act, omission, or error. Engineer shall pay such sum to Owner.
- 26. ASSISTANTS AND CONSULTANTS.** It is understood and agreed that the employment of the Engineers by the Owner for the purposes aforesaid shall be exclusive, but the Engineers shall have the right to employ such assistants and consultants as they deem proper in the performance of the work.
- 27. ASSIGNMENT.** This Agreement and each and every portion thereof shall be binding upon the successors and assigns of the parties hereto.

The undersigned do hereby covenant and state that this Agreement is executed in duplicate as though each were an original, and that there are no oral agreements that have not been reduced to writing in this instrument.

It is further covenanted and stated that there are no other considerations or monies contingent upon or resulting from the execution of this Agreement, nor have any of the above been implied by or for any party to this Agreement.

The undersigned do hereby covenant and state that this Agreement is executed in duplicate as though each were an original and that there are no oral agreements that have not been reduced to writing in this instrument.

It is further covenanted and stated that there are no other considerations or monies contingent

upon or resulting from the execution of this Agreement nor have any of the above been implied by or for any party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names on the date first written above.

**BOARD OF TRUSTEES
INDIANOLA MUNICIPAL UTILITIES**

ATTEST:

By _____
General Manager

By _____
Board Secretary

VEENSTRA & KIMM, INC.

ATTEST:

By Fonessa Melvin

By Vincent Quisicoll

VEENSTRA & KIMM, INC.
HOURLY RATES BY EMPLOYEE CLASSIFICATION
2024

Management I	\$250.00
Management II	235.00
Process Engineer I	255.00
Client Services I	230.00
Client Services II	150.00
Client Services III	135.00
Client Services IV	105.00
Client Services V	95.00
IT I.....	191.00
IT II.....	127.00
IT III.....	82.00
Funding Specialist I.....	140.00
Funding Specialist II	125.00
Engineer I-A.....	237.00
Engineer I-B	223.00
Engineer I-C.....	218.00
Engineer I-D.....	204.00
Engineer II-A.....	198.00
Engineer II-B	187.00
Engineer III-A	176.00
Engineer III-B	170.00
Engineer III-C	165.00
Engineer IV	157.00
Engineer V	149.00
Engineer VI	140.00
Engineer VII	135.00
Engineer VIII	129.00
Engineer IX	121.00
Engineer X	106.00
Engineer XI	96.00
Engineer XII	88.00
Design Technician I.....	138.00
Design Technician II.....	120.00
Design Technician III.....	107.00
Architect I	193.00
Architect II	167.00
Architect III	150.00
Planner I	151.00
Planner II	107.00
Planner III	98.00
Drafter IA.....	136.00
Drafter IB	125.00
Drafter II	120.00
Drafter III	115.00
Drafter IV	105.00
Drafter V	95.00

Drafter VI	85.00
Drafter VII	75.00
Clerical I	95.00
Clerical II	89.00
Clerical III	77.00
Clerical IV	67.00
Clerical V	57.00
Construction Engineer I	225.00
Construction Engineer II	145.00
Construction Engineer III	128.00
Construction Engineer IV	107.00
Surveyor I	163.00
Surveyor II	145.00
Technician I	122.00
Technician II	108.00
Technician III	99.00
Technician IV	95.00
Technician V	90.00
Technician VI	80.00
Technician VII	72.00
Technician VIII	65.00
Technician IX	54.00
Building Inspector I	220.00
Building Inspector I-A	154.00
Building Inspector II	119.00
Building Inspector III	95.00
Accounting I	196.00
Accounting II	142.00
Accounting III	126.00
Accounting IV	99.00
Accounting V	91.00
Administrative Assistant II	108.00
Design Engineer I	120.00
Engineer Intern	102.00
Office Coordinator	122.00
Principal of Firm I	235.00
Project Engineer I	135.00
Project Engineer II	152.00
Project Engineer III	161.00
Project Engineer IV	174.00
Senior Project Engineer I	155.00
Senior Project Engineer II	168.00
Senior Project Engineer III	182.00
Senior Project Engineer IV	187.00
Senior Project Manager IV	218.00
Senior Technician IV	157.00
Engineering Technician I	120.00
Engineering Technician II	124.00
Engineering Technician III	149.00

REIMBURSABLES AND EQUIPMENT RATES

GPS / Robotics	35.00
Tablet	45.00
Fluoroscope.....	50.00
4-Wheeler	50.00
Drone.....	75.00
Mileage.....	IRS Rate

MEMORANDUM

To: IMU Board of Trustees of the Electric, Water and Communications Utilities

From:

Date: November 12, 2024

Subject: Resolution Approving the Purchase of an Eaton UPS system for the Fiber Department

Recommendation:

Attachments:

1. QTE51560 revised 11-1
2. Res 2024- approval of purchase of and Eaton UPS system for the CO

**Power Solutions LLC**

PO Box 100
Barrington, RI 02806
United States
www.power-solutions.com
(P) 800-876-9373
(F) 401-434-5785

Bill To

Indianola Municipal Utilities
210 W 2nd Ave
Indianola IA 50125
United States

Ship To

IMU Fiber
110 S B st
Indianola IA 50125
United States

Quote

Date 9/13/2024
Document # QTE51560

Expires 11/17/2024
Terms
Shipping Method Freight pre-pay and add

Sales Rep

Guy Lacerte
(800) 876-9373 ext. 702
glacerte@power-solutions.com

Customer Contact

Kurt Gocken
(515) 962-5283
kgocken@imufiber.com

Part #	Description	Qty.	Rate	Tax	Amount
9PX11KTF5	Eaton 9PX 11kVA 10kW 208V Online Double-Conversion UPS - Hardwired Input, 18x 5-20R, 2 L6-30R Outlets, Cybersecure Network Card, Extended Run, 9U Rack/Tower	1	9,935.44	Yes	9,935.44
9PXEBM240RT	9PX UPS Rack/Tower 8/11 kVA EBM (add up to 5 EBMs) appx 40 minutes of runtime at 50% load	3	1,628.86	Yes	4,886.58

Subtotal 14,822.02
Shipping Cost (Freight pre-pay and add) 993.54
Total \$15,815.56

Purchase Orders can be issued to:
Power Solutions, LLC
PO Box 100
Barrington, RI 02806
sales@power-solutions.com

Important Reference Numbers:
FED ID: 05-0511872
DUNS: 025972782
Cage Code: 3K4V0

Unless specifically noted otherwise in the body of this quotation, the prices quotes shall remain valid for 30 days.

These prices do NOT include applicable taxes, insurance, shipping and delivery unless specifically listed above. All prices are subject to change without notice. Terms and Conditions can be viewed at: www.power-solutions.com/terms.

Indianola Municipal Utilities
Resolution 2024-

**RESOLUTION AUTHORIZING THE PURCHASE OF AN EATON UPS SYSTEM
FOR THE FIBER DEPARTMENT**

WHEREAS, the Fiber Department desires to purchase an Eaton UPS System for the Central Office; and

WHEREAS, after a review of the bids the Fiber Department recommends purchasing an Eaton UPS System for the Central Office; and

WHEREAS, the Board of Trustees believes it to be in the best interest of Indianola Municipal Utilities to accept the bid from Power Solutions to purchase an Eaton UPS System for the Central Office.

NOW, THEREFORE BE IT RESOLVED, by the Indianola Board of Trustees that an Eaton UPS System shall be purchased from Power Solutions in the amount of \$15,815.56 and the Fiber Department Superintendent is authorized and directed to execute on behalf of Indianola Municipal Utilities the documents required to purchase the items.

Approved this 12th day of November 2024.

Deb White, IMU Chairperson

ATTEST:

Monica Thompson, Board Secretary

MEMORANDUM

To: IMU Board of Trustees of the Electric, Water and Communications Utilities

From:

Date: November 12, 2024

Subject: Enter into closed session in accordance with Iowa Code Section 21.5 (1)(i) to evaluate the professional competency of an individual whose appointment, hiring, performance, or discharge is being considered when necessary to prevent needless and irreparable injury to that individual's reputation and that individual requests a closed session.

Recommendation:

Attachments: None