AN ORDINANCE TO AUTHORIZE AND APPROVE TWO ONE-YEAR EXTENSIONS OF CONTRACT 22003WDPS BETWEEN THE CITY OF WILMINGTON AND WILLIER ELECTRIC MOTOR REPAIR COMPANY, INC. FOR WATER DISTRIBUTION SYSTEM ELECTRICAL EQUIPMENT MANAGEMENT AND MAINTENANCE SERVICES

#0142

Sponsor:

Council Member Oliver

WHEREAS, pursuant to Section 2-308 and Section 8-200 of the City Charter, the City of Wilmington is authorized to enter into contracts for the supply of personal property or the rendering of services for a period of more than one year if approved by City Council by ordinance; and

WHEREAS, the City publicly advertised a request for proposals for Contract 22003WDPS "Water Distribution System Electrical Equipment Management and Maintenance Services" (the "Contract"), and subsequently awarded the Contract, a copy of which, in substantial form, is attached hereto and incorporated by reference herein as Exhibit "A", to Willier Electric Motor Repair Company, Inc.; and

WHEREAS, the term of the Contract is for the period from July 1, 2021 through June 30, 2022, at an estimated price of Seven Hundred Seventy-Eight Thousand Nine Hundred Seventy Dollars ($778,970.00), with the option of two (2) extensions of one (1) year thereafter on the same terms and conditions, with the possibility of a price adjustment for each extension based upon the Consumer Price Index for the Philadelphia/Wilmington Metropolitan Area, at the option of the City; and

WHEREAS, it is the recommendation of the Department of Public Works that Council authorize the City to exercise the options to extend the Contract for two (2) additional periods of one (1) year.

NOW, THEREFORE, THE COUNCIL OF THE CITY OF WILMINGTON HEREBY ORDAINS:

SECTION 1. The two (2) one-year extension options to Contract 22003WDPS "Water Distribution System Electrical Equipment Management and Maintenance Services" between the City of Wilmington and Willier Electric Motor Repair Company, Inc., a copy of which Contract, in substantial form, is attached hereto as Exhibit "A", at an estimated price of Seven Hundred Seventy-Eight Thousand Nine Hundred Seventy Dollars ($778,970.00) per extension, with the possibility of a price adjustment for each extension based upon the Consumer Price Index for the Philadelphia/Wilmington Metropolitan Area, are hereby approved, and the Mayor, or his designee, is hereby authorized to exercise the City's options, as well as to take all additional undertakings related thereto, as may be necessary.

SECTION 2. This Ordinance shall become effective upon its passage by City Council and approval by the Mayor.

First Reading……March 3, 2022
Second Reading……March 3, 2022
Third Reading……...

Passed by City Council,

_____
President of City Council

ATTEST:_____
City Clerk

Approved this ____ day of _____, 2022.

_____
Mayor

SYNOPSIS: This Ordinance authorizes the City to exercise two (2) one-year extension options for Contract 22003WDPS "Water Distribution System Electrical Equipment Management and Maintenance Services" with Willier Electric Motor Repair Company, Inc.

FISCAL IMPACT STATEMENT: The fiscal impact of this Ordinance is two (2) one-year contract extensions at an estimated price of Seven Hundred Seventy-Eight Thousand Nine Hundred Seventy Dollars ($778,970.00) per extension, with the possibility of a price adjustment for each extension based upon the Consumer Price Index for the Philadelphia/Wilmington Metropolitan Area.

W0116465

EXHIBIT A

Ad Number: 0004621857 Run Dates: 03/02/21, 03/09/21

The City of Wilmington
will receive sealed proposals at the
Div. of Procurement & Records,
5th Fl., Louis L. Redding Bldg.,
800 French St., Wilm., DE 19801 for:

22002WDPS – PUMP, VALVE AND MISCELLANEOUS MECHANICAL EQUIPMENT MAINTENANCE SERVICES

22003WDPS – ELECTRICAL EQUIPMENT MANAGEMENT AND MAINTENANCE SERVICES

Proposals are due on THURSDAY, March 25, 2021, at the close of business, 4:30 p.m.

Scope of Services may be obtained by emailing your request to procurement@wilmingtonde.gov

Phil Ceresini, CPPB
Purchasing Agent II
Department of Finance
Division of Procurement and Records

pceresini@wilmingtonde.gov
www.wilmingtonde.gov

3/2, 3/9-NJ

0004621857-01

THE NEWS JOURNAL

Classified Ad Receipt
(For Info Only - NOT A BILL)

Customer: SD CITY WILM PURCHASING DIV

Address: 800 N FRENCH ST FL 5
WILMINGTON DE 19801
USA

Ad No.: 0004621857
Pymt Method Invoice
Net Amt: $178.22

Run Times: 2

No. of Affidavits: 1

Run Dates: 03/02/21, 03/09/21

Text of Ad:

The City of Wilmington
will receive sealed proposals at the
Div. of Procurement & Records,
5th Fl., Louis L. Redding Bldg.,
800 French St., Wilm., DE 19801 for:

22002WDPS – PUMP, VALVE AND MISCELLANEOUS MECHANICAL EQUIPMENT MAINTENANCE SERVICES

22003WDPS – ELECTRICAL EQUIPMENT MANAGEMENT AND MAINTENANCE SERVICES

Proposals are due on THURSDAY, March 25, 2021, at the close of business, 4:30 p.m.

Scope of Services may be obtained by emailing your request to procurement@wilmingtonde.gov

Phil Ceresini, CPPB
Purchasing Agent II
Department of Finance
Division of Procurement and Records

pceresini@wilmingtonde.gov
www.wilmingtonde.gov
3/2, 3/9-NJ

0004621857-01

The News Journal
Media Group
A GANNETT COMPANY

Street Address:
950 West Basin Road
New Castle, DE 19720

Mailing Address:
P.O. Box 15505
Wilmington, DE 19850

(302) 324-2500
(800) 235-9100

Legal Desk:
(302) 324-2676
Legal Fax:
302 324-2249

SD CITY WILM PURCHASING DIV
800 N FRENCH ST FL 5

WILMINGTON, DE 19801 DE,

AFFIDAVIT OF PUBLICATION

State of Delaware
New Castle County

Personally appeared **The News Journal**

Of the **The News Journal Media Group,** a newspaper printed, published and circulated in the State of Delaware, who being duly sworn, deposeth and saith that the advertisement of which the annexed is a true copy, has been published in the said newspaper 2 times, once in each issue as follows:

03/02/21, 03/09/21 **A.D 2021**

Gail Wilczewski
Sworn and subscribed before me, this 9 day of March, 2021

Melanie C Altz

Ad Number: 0004621857

Legal notification printed at larger size for affidavit.

GAIL WILCZEWSKI ★ NOTARY PUBLIC, STATE OF NEW JERSEY ★ MY COMMISSION EXPIRES JULY 10 2024

REQUESTS FOR PROPOSALS

1. Proposals on **City Contract 22003WDPS – ELECTRICAL EQUIPMENT MANAGEMENT AND MAINTENANCE SERVICES** will be received in the Division of Procurement and Records, 5th Floor, Louis L. Redding City/County Building, 800 French Street, Wilmington, Delaware, on **THURSDAY, MARCH 25, 2021, at the close of business, 4:30 p.m. Bids can also be left in the drop box marked "PROCUREMENT" located on the first floor in front of the guard station.**

2. Proposals must be an original and three (3) paper copies, along with 2 flash drives each containing a PDF file of the proposal sealed in an envelope, and the envelope endorsed **"Proposal for City Contract 22003WDPS – ELECTRICAL EQUIPMENT MANAGEMENT AND MAINTENANCE SERVICES "** and addressed to the Department of Finance, Division of Procurement and Records, 5th Floor, Louis L. Redding City/County Building, 800 French Street, Wilmington, Delaware.

3. Any proposal may be withdrawn prior to the schedule time for opening of proposals or authorized postponement thereof. No proposal may be withdrawn within sixty (60) calendar days after the actual opening thereof.

4. The successful proposer will be required to have or obtain an appropriate business license from the Department of Finance, Revenue Division, City of Wilmington, in order to be awarded the contract. Before obtaining a City of Wilmington Business License, all applicants must show proof of a current State of Delaware Business License.

5. The successful proposer will be required to withhold City of Wilmington Wage Tax from their employees and withheld taxes paid to the City of Wilmington pursuant to the provisions of the Wilmington Wage Tax Law. This law applies to people living and/or working in the City of Wilmington.

6. The U.S. Department of Commerce monitors Procurement transaction made to minority business enterprises by the City of Wilmington. The Minority Business Development Agency's District Office reserves the right to contact the successful minority proposer and/or subcontractor to confirm any participation in the Procurement process.

7. The successful bidder certifies that they are not listed on the Federal Governmental, Excluded Parties List System (www.sam.gov). This will be verified by the City of Wilmington and if listed may be grounds for rejection of the bid or proposal.

8. **Award and Execution of Contract**

A. **Consideration of Proposals.** Before awarding the contract, a proposer may be required to show that he/she has the ability, experience, necessary equipment, experienced personnel, and financial resources to successfully carry out the work required by the contract.

The right is reserved to reject any and/or all proposals, to waive technicalities, to advertise for new proposals, or to proceed to do the work otherwise, if in the judgement of the department the best interest of the City will be promoted thereby.

B. **Award of Contract.** The award of the contract, if it be awarded, must be within sixty (60) calendar days after the opening of proposals to the qualified proposer whose proposal complies with all the requirements prescribed. The successful bidder will be notified by letter mailed to

the address shown on his proposal that his proposal has been accepted and has been awarded the contract.

C. **Cancellation of Award.** The City reserves the right to cancel the award of any contract at any time before the execution of said contract by all parties without any liability against the City.

9. Any person doing business or seeking to do business with the City shall abide by the following Global Sullivan Principles:

A. Support universal human rights and particularly, those of employees, the communities within which you operate, and parties with whom you do business.

B. Promote equal opportunity for employees at all levels of the company with respect to issues such as color, race, gender, age, ethnicity, or religious beliefs, and operate without unacceptable worker treatment such as the exploitation of children, physical punishment, female abuse, involuntary servitude, or other forms of abuse.

C. Respect employee's voluntary freedom of association.

D. Compensate employees to enable them to meet at least their basic needs and provide the opportunity to improve their skill and capability in order to raise their social and economic opportunities.

E. Provide a safe and healthy workplace; protect human health and the environment; and promote sustainable development.

F. Promote fair competition including respect for intellectual and other property rights, and not offer, pay, or accept bribes.

G. Work with governments and communities in which you do business to improve the quality of life in those communities -- their educational, cultural, economic, and social well-being -- and seek to provide training and opportunities for workers from disadvantaged backgrounds.

H. Promote the application of these principles by those with whom you do business.

Questions : Written questions must be submitted by email to procurement@wilmingtonde.gov. Relevant questions will be responded to via published addendum. Questions will not be accepted after March 16th.

If a prospective proposer desires a site tour it can be scheduled with Mr. Sam Baise by calling 302-573-5727.

CITY OF WILMINGTON, DELAWARE
DEPARTMENT OF PUBLIC WORKS

WATER DIVISION
ELECTRICAL EQUIPMEMNT MANAGEMENT
AND MAINTENANCE SERVICES

REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES

PROPOSAL NO. 22003 WDPS

FEBRUARY 2021

CITY OF WILMINGTON, DELAWARE
DEPARTMENT OF PUBLIC WORKS

WATER DISTRIBUTION SYSTEM
ELECTRICAL EQUIPMENT MANAGEMENT AND
MAINTENANCE SERVICES

REQUEST FOR PROPOSAL

Proposal No. 22003 - WDPS

February, 2021

Prepared by:

Parada Construction Services, LLC

1508 Randy Lane
Cherry Hill, NJ 08003
215-687-6219 - Cell

TABLE OF CONTENTS

I. SCOPE AND NATURE OF SERVICES TO BE PROVIDED

1. GENERAL INFORMATION

1.1 Objective of this Request for Proposals

The City of Wilmington, Delaware, herein referred to as "City" is seeking professional, competitive proposals from organizations, herein referred to as "Contractor", experienced in performing maintenance services specific to Electrical work through a comprehensive Program Management approach, whereby the City's assets, as outlined herein, are evaluated, prioritized from a risk perspective, and channeled into a preventative/corrective-measure maintenance program where scheduled maintenance activities are systematically accomplished by the Contractor with each step closely coordinated with the City.

With the Program Management approach, the City desires to elevate the reliability and performance of its Electrical assets, but it also desires to have cost-effective framework for providing reactive, emergency services should the situation arise. The City also requires that the Program be computer based to a level that will allow for electronic interaction with the City's existing Computerized Maintenance Management System (CMMS).

1.2 Overview of Facilities and Equipment

City water distribution facilities are located throughout the City of Wilmington and surrounding communities and generally treat, pump, and convey potable water to storage facilities and consumers. Several facilities also pump raw, untreated water to City treatment facilities or raw water reservoirs. The electrical and communication equipment includes transformers, switchgear, MCCs, panelboards, VFDs, pump motors, emergency generators, computer networks, and fiber optic cables. The related electrical systems include electric metering and control equipment. Repair and maintenance of instrumentation systems is not included. There are a total of approximately 11 oil-filled transformers, 15 dry transformers, 13 switchgear, 11 MCCs, 17 panel boards, 34 pump motors, and 7 VFDs. A complete listing of equipment is included as Appendix A. The equipment is located in the following City facilities:

1. Cool Spring Pumping Station
2. Foulk Road Pumping Station
3. New Castle Pumping Station
4. Kennett Pike Pumping Station
5. Hillcrest Pumping Station
6. Hoopes Pumping Station
7. Alapocas Pumping Station
8. Wills Pumping Station
9. Porter Complex
10. Brandywine Pumping Station
11. Orange Street Pumping Station/Tunnel
12. Rockford Tank

13. Greenhill Tank
14. Brandywine Membrane Plant

1.3 Summary of Responsibilities for the Selected Maintenance Contractor

The successful Contractor will be responsible for providing all of the services described in the subsequent sections of this RFP. These services fall into three major categories including maintenance and repair of high and medium voltage equipment, low voltage power equipment, and computer and communications systems. In summary, the successful Contractor will be responsible for:

- Provide annual (one per contract year) evaluations of the electrical equipment at City water distribution facilities as listed in Section 1, Paragraph 1.2 and provide a written report summarizing recommended maintenance work and cost estimates for such work.
- Providing annual inspection and maintenance services for each electrical equipment item listed in Appendix A, including air compressors and microfiltration membrane units.
- Providing unscheduled on-call maintenance and repair services upon City request within one (1) working day of the request.
- Providing emergency maintenance and repair services as requested by the City during all City declared emergency situations such as equipment and power failures within six (6) hours of the request.
- Providing technical assistance on an as-requested basis, including membranes.

1.4 General Contractor Requirements

The successful Contractor will have suitable facilities and experience with electrical system maintenance and repair as summarized below:

- Five years of maintenance and repair experience within the last seven years with the same type and size or larger equipment as currently installed at the City's facilities.
- Ready access to a machine/repair shop with the equipment required to handle and repair City electrical equipment including pump motors.
- Own or have ready access to electrical testing equipment.
- References from municipalities, authorities or private utility companies where the Contractor performed similar services on similar size and type equipment.
- Qualified technical and support staff to assist with evaluations of equipment and replacement items.

- Qualified technical and support staff to assist with evaluations of equipment and replacement items.
- Personnel trained and certified for work in confined space
- Own or have ready access to equipment required for work confined spaces.
- Sufficient field personnel and supervisory staff to complete required repairs and installations promptly.
- NOTE: The Successful Contractor will have demonstrated at least two successful projects of similar nature and size for Municipalities of similar or larger size.

2. TERM OF THE AGREEMENT

2.1 Commencement of Operations

The Successful Contractor shall commence performance of services under the terms of this RFP within thirty (30) days of contract execution.

2.2 Term of the Agreement

The term of the contract shall commence on the date upon which the City executes the Contract and shall run through June 30, 2022.

The Contract term may be extended, at the City's discretion, for up to two (2) one-year terms after the completion of the initial term. In such case of a contract term extension, the costs for each of the eleven bid items may be adjusted at contract renewal. Adjustment of the costs will be considered only in light of the following limitation:

- The change in all costs (labor rates and services) will not exceed the Consumer Price Index – Urban (CPI-U) for all urban consumers for all items in the Philadelphia/Wilmington Metropolitan Area for the prior year.

3. MANAGEMENT OF THE AGREEMENT

3.1 Contract Administration

The Commissioner of Public Works is authorized to act on behalf of the City in any and all matters relating to or resulting from this RFP. The Commissioner shall appoint a representative who will be designated as the Contract Administrator, and will be authorized to act on behalf of

the Commissioner of Public Works. The Contract Administrator will resolve any and all questions which may arise as to the quality, quantity, and character of service performed by the successful Contractor in the execution and day-to-day management of the agreement.

3.2 Dispute Resolution

In the event of any dispute between the Contract Administrator and the successful Contractor regarding the successful Contractor's performance, or the Contract Administrator's decisions relative to the agreement, either party may submit the dispute to the Commissioner of Public Works. Each party will be given the same opportunity to present its position to the Commissioner, who shall render a decision within twenty (20) days. The decision of the Commissioner shall be final.

4. DEFINITION OF SERVICES

The successful Contractor will provide each of the services outlined under the terms of this RFP and will provide all procedures, supervision, labor, tools, parts, materials, supplies, and subcontractor services required to perform electrical maintenance and repair services in accordance with the requirements of this RFP.

5. ELECTRICAL SYSTEM MAINTENANCE

5.1 Services to be Provided

5.1.1 Annual Inspection and Maintenance

The Contractor will perform annual inspections and maintenance on all electrical equipment, air compressors and microfiltration membrane units in accordance with a proposed Inspection and Maintenance Program to be developed by the Contractor and submitted with their proposal, for the following electrical equipment and systems:

- low and medium voltage motor control starters (MCC)
- individual circuit breakers and/or controllers
- synchronous motor starters, variable frequency drives and soft starters
- dry-type and oil-filled transformers
- panelboards
- low-voltage switchboards and circuits
- low and medium voltage switchgear
- primary and secondary substations, including transformers and circuit breakers
- protective relaying for medium voltage switchgear
- motors for water distribution pumps and various sump pumps
- conduit systems
- heaters and solenoid valves
- Air Compressors throughout the various facilities and dryers
- Membrane Microfiltration Units at the Brandywine Membrane Plant
- Solar Field components at Porter and the City Yard

- Greasing of all motors
- Preventative Maintenance of Stationery Generator Sets

The Contractor will maintain a maintenance schedule and log for every location and will describe, as an integral part of its proposal, how it will schedule annual inspections and maintenance and monitor for maintenance program compliance. The City utilizes the LandPort Computerized Maintenance Management System for controlling and scheduling maintenance work. The Contractor will be expected to develop an understanding of the system and requirements. The Contractor will be expected to develop an understanding of the system and its requirements, including a demonstrated ability to work from and receive emails from the CMMS System. The Contractor will be expected to complete City issued work orders and maintenance sheets in a timely manner. In addition, the Contractor will be expected to coordinate with the City's SCADA Integrator as required during the course of the work

Inspection and test procedures shall be in accordance with the "Maintenance Testing Specifications for Electrical Power Distribution Equipment and Systems" by International Electrical Testing Association, Inc., also called NETA MTS, 1997 or latest edition, for the specific equipment. Qualifications of testing firm and personnel, division of responsibility, and suitability of test equipment and test instrument calibration shall comply with NETA MTS Sections 3, 4 and 5. All inspections and tests shall be in accordance with the latest editions of the codes, standards and specification listed in NETA MTS Section 2, except as provided otherwise in NETA MTS and the manufacturer's maintenance instructions.

The Contractor's Inspection and Testing Program shall include the following tasks as a minimum:

General Maintenance Tasks

1. General cleaning in and around electrical equipment, including individual components such as circuit breakers and insulators; removing corrosion, retouching paint, sealing of leaks from rain, water spraying, drips or condensation; cleaning or replacement of vent filters, and other annual maintenance tasks recommended by the equipment manufacturer.
2. Review the City's preventive maintenance log and recommend modifications to the preventive maintenance procedures.
3. Provide a decal on each piece of equipment, metering and protective relay, indicating the date of inspection, testing and/or calibration, and the Contractor's name and telephone number.
4. Prepare written report for each facility within one month of inspection of the facility summarizing the observations and recommendation for the equipment at the facility. The test report shall include: summary of project, description of equipment tested, description of test, test results, analysis and recommendations. The test reports must include a summary of the significance of the test values and whether they are within normal operating ranges.

Switchgear, switches, circuit breakers, motor control centers and starters, VFDs, and outdoor bus structures

1. Inspect physical, mechanical and electrical condition for evidence of moisture, corona, cracks, damage and any other signs a potentially unsafe electrical condition may exist.
2. Visual and mechanical inspection of all electrical connections using one of the following methods as specified in the NETA MTS for each type of electrical equipment:
    a. Perform thermographic survey in accordance with the MTS Section 9.
    b. Verify tightness of accessible bolted electrical connections by calibrated torque wrench method in accordance with manufacturer's published data or Table 10.12 in the MTS.
    c. Use of low-resistance ohmmeter in accordance with Section 7.2.1.2.2.2 of the MTS.
3. Confirm correct operation and sequencing of electrical and mechanical interlock systems.
4. Inspect insulators for evidence of physical damage or contaminated surfaces.
5. Exercise all active components.
6. Verify all indicating and control devices.
7. Verify correct operation of heaters, if applicable.
8. Verify that fuse sizes and types are in accordance with drawings.
9. Verify appropriate lubrication on moving current-carrying parts.
10. Verify proper clearances and alignment on mechanical parts.
11. Verify correct insulating oil level for oil-filled switches. Inspect and/or replace gaskets as recommended by the manufacturer.
12. Perform insulation-resistance tests, ground-resistance tests, and other specific tests as outlined in the MTS Section 7 for each specific type of equipment.

Transformers

1. Thoroughly inspect the physical and mechanical condition.
2. Visual and mechanical inspection of all electrical connections using one of the following methods as specified in the NETA MTS for each type of electrical equipment:
    a. Perform thermographic survey in accordance with the MTS Section 9
    b. Verify tightness of accessible bolted electrical connections by calibrated torque wrench method in accordance with manufacturer's published data or Table 10.12 in the MTS.
    c. Use of low-resistance ohmmeter in accordance with Section 7.2.1.2.2.2 of the MTS.
3. Perform resistance measurements, insulation resistance tests, turns-ration tests and other specific tests for the transformer type as listed in the MTS Section 7.
4. Test insulating liquid for liquid-filled transformers according to NETA MTS, Section 7.2.2.10.

AC Motors

1. Inspect physical and mechanical condition.
2. Inspect for correct anchorage, mounting, grounding, and connections.
3. Inspect all bolted connections for high resistance using one of the following methods:
    a. Perform thermographic survey in accordance with the MTS Section 9.
    b. Verify tightness of accessible bolted electrical connections by calibrated torque wrench method in accordance with manufacturer's published data or Table 10.12 in the MTS.
    c. Use of low-resistance ohmmeter in accordance with Section 7.2.1.2.2.2 of the MTS.

4. Perform resistance measurements, insulation-resistance tests, and vibration tests (For motors larger than 200 Hp, plot amplitude vs. frequency. Perform vibration amplitude test on motors rated between 200 Hp and 25 Hp) as listed and described in the MTS Section 7. Collect vibration data with a real-time or sweep-frequency analyzer capable of measuring peak-velocity (preferred) and/or peak-to-peak displacement as a function of frequency. In subsequent years, compare testing results with the results of previous testing and comment on changes.
5. Verify that RTD circuits conform to drawings and that metering or relaying devices using RTD's have the correct rating.
6. Verify operation of motor space heaters.
7. For synchronous motors, perform all tests for AC Motors as listed in the MTS Section 7. Specific tests for synchronous motors would include performing a voltage-drop test on all salient poles, perform an insulation-resistance test on the main rotating field winding, exciter field winding and the exciter armature winding.
8. Check alignment of coupling and shaft.
9. The contractor will perform the additional electrical tests and procedures listed in MTS section 7 for AC motors.
10. Grease all Electrical Motors

Electrical Components of Generators

1. Inspect physical condition and perform Preventative Maintenance of batteries and cables, including battery load tests and battery chargers.
2. Verify output of batteries and chargers.
3. Perform semi-annual oil changes, including oil, filters and recommended PM
4. Perform semi-annual lubrication on all gen set parts requiring lube.
5. Perform Annual Load Tests as recommended, and perform all PM including block heaters, coolants, filters, batteries and all other manufacturer recommendations.

Prepare written report for each facility within one month of inspection of the facility summarizing the observations and recommendation for the equipment at the facility. The test report shall include: summary of project, description of equipment tested, description of test, test results, analysis, and recommendations. The test reports must include a summary of the significance of the test values and whether they are within normal operating ranges.

The Contractor must include a detailed listing of all tests to be performed on the electrical equipment as part of the annual maintenance. The work must be scheduled at least one month in advance with the approval of City personnel to ensure the ability to remove equipment from service as required. The City expects that the Contractor will assume an active role ensuring a high level of program compliance, and will consider favorably proposals that include specific methods of achieving this goal.

In addition, the Contractor must perform an annual (one per contract year) evaluation of the electrical equipment at the City water distribution facilities identifying recommended maintenance work and cost estimates for such work. The results of the evaluations must be submitted in a bound report with a separate section for each separate City facility summarizing the recommended maintenance work at that facility and providing an estimated cost to perform

each item of work identified. The maintenance work identified at each facility should be prioritized based on the severity of the maintenance need and in addition, the list of items for all facilities collectively should also be similarly prioritized. The work of evaluating, summarizing, and reporting on the maintenance needs will be performed as a lump sum component of the project. Any maintenance work identified may be performed by the Contractor as part of the hourly maintenance work or as a separately negotiated lump sum item upon the City's request.

5.1.2 Unscheduled Maintenance and Repairs

The Contractor will provide electrical maintenance and repair service, when requested by the City, to check, troubleshoot, and repair electrical equipment and systems. The city will provide the Contractor with a written or verbal request for maintenance or repair services. Some of the requests may be generated by the maintenance management system on forms that must be carefully completed after the maintenance work is completed. Whenever possible, the City will provide the Contractor with one-weeks' notice prior to the need for the service. However, the service may be required within one (1) working day of a request by the City. Whenever possible, the work shall be performed on-site during normal working hours (8 AM to 4 PM) and normal working days. The Contractor's personnel must sign in and out with the City's representative upon arrival and after completion of the work. Portal to portal time is not acceptable.

Provide access to the membrane manufacturer, Pall Corporation of Port Washington, NY, for discussion and operational or maintenance advice as necessary.

The Contractor must provide a daily service report for each day of service which includes at a minimum: date and time of the visit, number of personnel and total number of man-hours utilized, identification of the equipment inspected or serviced, and description of the work performed. Any work done in the shop away from the site must also be supported by a service ticket or report.

If the report recommends that follow-up repairs be made, an estimate of the repair cost shall be provided by the Contractor. Repairs estimated to cost in excess of $1,000 or more than the fair market value of the equipment must be analyzed by the Contractor and City to evaluate the repairs' cost effectiveness and be approved in advance by the City. In such cases, if the Contractor believes that equipment replacement appears to be more cost-effective than repair, such recommendation shall be presented to the City. The City, however will make the final repair versus replace decision.

For maintenance or repair work estimated to cost in excess of $1,000, the City may request a not-to-exceed cost proposal for the work including all services, equipment, and material required. For all subcontracted work and purchased equipment, the City may request three (3) quotes. See Section 11, Part 6 for invoicing procedures.

5.1.3 Emergency Services

The Contractor will provide emergency electrical maintenance and repair service, when requested by the City, to check, troubleshoot, and repair electrical equipment and systems. The City will provide the Contractor with a verbal request from the City's designated representative for maintenance or repair services. The services shall be provided within six (6) hours following

the City's request. It is expected that the work may be performed on-site outside of normal working hours (8 AM to 4 PM) and normal working days. The Contractor's personnel must sign in and out with the City's representative upon arrival to site and after completion of the work. Portal to portal time is not acceptable.

The Contractor must provide a written report after each emergency service is complete which includes as a minimum the date of the City request, date and time of the visit, identification of the equipment inspected, a description of the work performed, and any recommended follow-up actions.

If the report recommends that follow-up repairs be made, an estimate of the repair cost shall be provided by the Contractor. Repairs estimated to cost more than $1,000 or more than the fair market value of the equipment, must be analyzed by the Contractor and City to evaluate the repair's cost effectiveness, and be approved in advance by the City. In such cases, if the Contractor believes that equipment replacement appears to be more cost-effective than repair such recommendation shall be presented to the City. The City, however, will make the final repair versus replace decision. The Contractor will be required to obtain three quotes for all equipment required in excess of $1,000. The Contractor will be required to prepare submittals for replacement equipment including manufacturer's cut sheets and additional details as required so that the City can fully review and approve of the proposed equipment.

5.1.4 Warranty Work

The Contractor will administer all warranty repairs of new electrical equipment that it installs.

5.1.5 Subcontracted Services

The Contractor's proposal will define the types of services that will be conducted by subcontractors. The Contractor will be responsible for arranging and managing subcontracted services, and will assume full responsibility and liability for the quality of the subcontractor's work. Subcontracted work will be reimbursed according to the hourly rates bid or under a negotiated not-to-exceed cost for a job. Subcontracted services shall comply with the requirements of this RFP. Subcontractors must be approved by the City prior to performing any work. The City may request three (3) quotes for all subcontracted work. The participation of DBE Subcontractors is encouraged. See Subsection 3, Employment Provisions, in Section III General Contract Provisions, for additional information.

In invoicing the City for unscheduled and emergency maintenance and repair, the Contractor will only charge the City net costs for subcontractor's costs. Net cost for subcontractors is the invoice price plus the allowable mark-up. The allowable mark-up for subcontractors shall not exceed Ten percent (10%) of the subcontractor's invoiced prices for subcontracted services. In the event that subcontracted services exceed $100,000 in value for a specific project, the allowable mark up shall not exceed five percent (5%) unless otherwise negotiated. Project Management fees for the Proponent shall be derived from this 5% markup. Invoices to the City including subcontractors shall include copies of the subcontractor's invoices showing the invoiced price and hourly rates of the subcontractor. All invoices submitted to the City must also

highlight the percentage of the overall Contract value that has been paid to DBE firms on a monthly and a Contract to Date basis.

5.1.6 Specialized Services

The work includes specialized services, which will be an integral part of the service provided by the Contractor. Subcontracting specialized services to DBE providers or other specialty firms is encouraged to provide highly skilled work and achieve competitive costs. The Contractor's proposal must address specifically or their subcontractors' abilities in the following areas:

1. Short circuit and coordination studies to recommend or ve[illegible] proper selection of protective device ratings, characteristics' and settings.
2. Harmonic analysis and testing.
3. Inspection, testing and maintenance of medium voltage equipment and substation transformers and control transformers including calibration of protective relaying and insulating oil testing.
4. Inspection, testing, and maintenance of large solid state motor controllers including variable frequency drives, soft starters, and synchronous motor controllers.
5. Inspection, testing, and maintenance of the electrical components of gas and diesel engine generators and associated emergency equipment.
6. Maintenance and repair of sleeve bearings.
7. Machining motor components.
8. Rigging. The Contractor is responsible for providing all equipment (beyond that installed at the work locations) and labor for any rigging and hoisting required.
9. Premium winding services for motors up to 1000 Hp including:
   a. Core loss testing with print out
   b. Epoxy vacuum pressure impregnation (VPI)
   c. Demagnetizing bearing heaters
   d. Class H insulation
   e. Inverter duty magnet wiring
   f. Dynamic balancing
10. Installing, repairing, and maintaining computer networkin[illegible] vstem cable and connections including fiber optic cables and splices.
11. Installing, repairing, and maintaining conduits systems and low voltage electrical supply systems.
12. Additional personnel and equipment required for work in confined spaces in excess of the qualified personnel engaged in the work.

5.1.7 Waste Management

The Contractor will provide for the gathering and disposal of all non-hazardous and hazardous waste products produced through maintenance and repair activities. The Contractor shall properly dispose of all waste materials in accordance with City policies, and local, state, and federal laws and regulations.

The Contractor will provide training for its employees, and will obtain and maintain all required permits and records, including Material Safety Data Sheets (MSDS) and contingency plans for handling a spill or other mishap on all hazardous materials and waste products, and will report all incidents to the City contract representative.
The Contractor is required to remove all trash and scrap metal from the work site. Only the City's representative, Mr. Sam Baise, shall be consulted for the Right of First Refusal.

5.1.8 Standby Power Availability

The Contractor will provide for ability to provide mobile power generation at the following stations:

- Wills Pumping Station
- Hoopes Pumping Station
- Brandywine Filter Plant

It is anticipated that the successful Contractor will maintain a Contract with a supplier of mobile power generators such as Philips Brothers of Glenmore, PA such that the City can have a mobile power generator running within 8 hours of a called in emergency. Additionally, the City should have the right of first refusal on generators should an anticipated emergency such as a hurricane, limit the number of mobile power generators that the supplier may have on hand.

These stations have manual transfer switches and generator docking capabilities.

5.1.9 Solar Power Generation

The Contractor will provide for ability to support, repair, replace and possibly upgrade the City's Solar Fields located at:

- Porter Filter Plant
- Turner Complex/Public Works Yard (New York Avenue)

It is anticipated that the successful Contractor will maintain a Contract with a specialty solar contractor that can maintain and respond to repairs on the 600 VDC production fields, the inverters, transformers and switches.

6. PROVISION OF PARTS AND EQUIPMENT

6.1 Services to be Provided

6.1.1 Procuring, Stocking, and Disbursing Parts

The Contractor will procure and furnish all parts, materials, supplies, and fluids required for the maintenance and repair tasks assigned by the City in accordance with generally accepted parts

management practice. The Contractor must ensure that all relevant standards of performance are met.

6.1.2 Quality of Parts and Equipment to be Furnished

Parts used to maintain and repair the equipment will, at a minimum, meet or exceed the quality of the parts furnished originally for the equipment (OEM equivalent). Rebuilt/remanufactured parts must conform to the manufacturer's reconditioning tolerances. If a part that meets the requirements of this section is manufactured by more than one company, the City can designate which part will be used. If during the term of any agreement r ılting from this RFP the City determines that the parts being supplied do not meet its needs, the City reserves the right to require a specific substitute to be used. The City will, additionally, specifically approve all product lines or changes to product lines before they are introduced for use.

The Contractor will be required to submit shop drawings including manufacturer's cut sheets and other details as required for the City to review and approve all new equipment purchased for incorporation into City facilities. The City reserves the right to specify manufacturers and equipment to be provided.

6.1.3 Warranty of Parts

Notwithstanding inspection and acceptance by the City, products supplied under any agreement resulting from this RFP will be warranted by the Contractor for one year, or the length of time of any warranty given by the manufacturer or rebuilder/remanufacturer, whichever is greater, after acceptance by the City.

7. RECORD KEEPING, REPORTING AND MEETINGS

7.1 Work Reports

After each on-call service provided, the Contractor must provide a written summary of the work including date of the City's request (work order), date and time of the service performed, a description of the repair or maintenance work performed, identification of any parts installed, and any recommendations for follow-up actions. Shop work must be supported by a written summary of work as well. Format of written summary (service ticket) must be suitable for binding into annual report.

7.2 Maintenance and Repair Log

At a minimum, the Contractor will record and maintain a Maintenance and Repair record with all descriptive information for each service performed and will record all work order data including maintenance, repairs, subcontracted services, and parts used for each service activity performed. A copy of new entries to the log shall be provided to the City with each related invoice. In

addition, copies of the log must be provided to the City at any time upon request. Format of Maintenance and Repair record must be suitable for binding into the annual report.

7.3 Annual Meetings and Reports

A meeting will be held no more than sixty (60) days following the end of each contract year at which the Contractor will present a written annual report that summarizes the prior year's activity in a format agreed upon by the Contractor and the City. During this meeting, the Contractor will also present a summary of work accomplished relative to service performance standards. The presentation will also include recommendations for changes to improve performance during the upcoming year. A copy of the presentation materials and the written report will be made available to the City two weeks before the meeting. The City will review the Contractor's performance during the annual meeting. The City reserves the right to schedule a meeting at any time.

7.4 Reference Files and Procedures

The Contractor will provide a copy of O&M manuals, service manuals, service bulletins, material maintenance requirements and other information needed to properly service and repair all new equipment that it installs. One copy will be required prior to installation and four approved copies will be required after installation. In addition, the Contractor shall maintain a complete file of these documents as well. These will become the property of the City upon completion or termination of the contract.

7.5 Access to and Ownership of Records

Copies of all records regarding the work are to be provided to the City. Upon prior notice by the City, the Contractor will provide the City's authorized representatives access, at all reasonable times, to all electronic and hard data, books, records, correspondence, instructions, plans, drawings, receipts, vouchers, and memoranda. The Contractor shall provide to the City cost verification for work performed in accordance with any agreement resulting from this RFP. All reference files and procedures, and all electronic data and hard copy records will become the property of the City upon completion or termination of the contract.

7.6 Billing Information

The Contractor's billings must be broken down to include basis (e.g. cost per labor hour, actual cost of parts used, etc.) for all work performed. For work performed under a not-to-exceed authorization, a schedule of values may be used as the basis for billings as approved by the City. **Please Note that Invoices submitted must highlight the percentage of DBE participation with respect to the overall billed amount on a monthly and Year To Date basis.**

7.7 Annual Maintenance Recommendations Reports

The Contractor must submit six (6) copies of the annual bound reports summarizing recommended maintenance work at the City water distribution facilities as described in Section 5, Paragraph 5.1.1 within one month following the annual evaluations of City facilities. In subsequent years of the contract, the report must also include a completed maintenance log for all facilities summarizing the work performed during the prior year.

8. USE OF CITY MAINTENANCE EQUIPMENT

8.1 Use of Installed Equipment

a) The City will permit the Contractor to use the existing cranes and hoists permanently installed at some of the pumping facilities that are City property.

b) The City does not warrant or guarantee against the possibility that safety or environmental hazards or potential hazards may exist at the facilities where work may be performed. The Contractor will be responsible for identifying any hazardous conditions and notifying the City of these conditions in writing within thirty (30) days of agreement award and prior to performing work at a facility.

c) The Contractor will not use the property or equipment owned by City for any personal advantage, business gain, or other personal endeavor by the Contractor or the Contractor's employees other than in the performance of the work described in this RFP unless otherwise authorized in writing by the City.

d) The City will be responsible for supplying all utilities for the Contractor's on-site maintenance and repair work including normally available water and electric power supply from the nearest source. The Contractor must supply any temporary piping or wiring required to utilize City utilities.

9. CONTRACTOR PERSONNEL

9.1 Contractor Point of Contact

The City considers the Contractor's Point of Contact to be one of the cornerstones on which a successful contract will be established. It is expected that the Contractor's Point of Contact will need to work closely and cooperatively with the City's Contract Administrator on a regular basis and will become the primary point of contact for all matters relating to the maintenance and upkeep of the City's equipment. As such, the Contractor's Point of Contact will have proven technical and managerial experience in the field of electrical systems maintenance and repair for water distribution systems.

In addition, the Contractor's Point of Contact will represent any Subcontractors retained by the Contractor to perform City work. The Contractor must present its nominee for Point of Contact during interviews with the City (should the Contractor be invited for an interview). The City

reserves the right to reject any nominee that the Contractor puts forward for the position of Point of Contact.

9.2 Selection of Personnel

The Contractor will have the responsibility for selecting personnel to perform the services outlined in this RFP and for determining and providing wages, salaries, and benefits for its employees.

The Contractor will include, and will describe in detail in its proposal an employee training, improvement, and certification program.

9.3 Changes in Personnel

The Contractor's Point of Contact will not be changed without prior consultations with the City, except that the Contractor's Point of Contact may be dismissed without prior City approval for criminal activity or documented violations of company policies. Otherwise, the City must approve the timing of the change, and the specific individual who replaces the incumbent Point of Contact.

The City reserves the right to require the dismissal of any Contractor employee whose performance or actions are determined by the City to be detrimental to achieving the objectives set forth in this RFP.

10. QUALITY ASSURANCE PROGRAM

Contractors need to be fully aware that the City relies on the electrical equipment and systems at the pumping stations to provide drinking water to City residents. As a result, the availability and reliability of the equipment is of the essence. With this in mind, the Contractor must demonstrate its commitment to quality by establishing and/or maintaining a quality assurance program to control the quality and timeliness of the work.

The Contractor will implement a Quality Assurance Program for the management of the service delivery requirements of this RFP. The program will include provisions for providing a high level of customer service, reducing repairs and replacement costs incurred by the City, and reducing equipment down time. The Contractor will include a detailed description of its proposed Quality Assurance Program in its proposal. This part of the Contractor's proposal will address, at a minimum, the following items:

- Maintenance and Repair Performance
- Cost Reduction Initiatives
- City and Employee and Training Programs

- Alliance with Manufacturers
- Parts Availability

The Contractor's proposal will, in addition, define a recommended role for the City in the quality assurance program.

11. TOTAL CONTRACT COST

Any contract resulting from this RFP will have five cost components: Annual Inspection and Maintenance Cost, Annual Maintenance Recommendations Report, labor rates for Unscheduled On-Call Service, labor rates for Emergency Service, and an allowance for spare parts procurement. The Contractor's proposal will contain an itemized cost proposal in the tabular format described in Appendix C. The quantities shown on the Proposal Form in Appendix C are estimates only and do not obligate the City in any way. In addition, an itemized list of employees and equipment and the corresponding billing rates must be provided as discussed in the following sections. Each major cost component of the contract is described below.

11.1 Annual Inspection and Maintenance

Annual Inspection costs are those costs incurred by the Contractor for annual inspection and maintenance services, as defined throughout this RFP. The Contractor will develop an annual fixed price cost proposal for the provision of all annual inspection and maintenance that is inclusive of subcontractors, transportation, labor costs, and all small tools and equipment required for the annual services as described in NETA MTS including infrared testing, vibration analysis, and alignment equipment. The cost for creating, maintaining, and updating the maintenance log as described in Section 7, Paragraph 7.1 must be included in this item.

11.2 Annual Maintenance Recommendations Report

The annual facility evaluations will be included as a lump sum component of the project cost. The lump sum cost must include all labor costs, transportation costs, equipment costs, and production costs associated with the on-site evaluation of the water distribution facilities, the evaluation and summation of the maintenance items identified, the cost estimation and prioritization of the items, and the preparation and submittal of the required bound reports.

11.3 Unscheduled On-Call Services

Unscheduled On-Call Service costs are those costs incurred by the Contractor to provide unscheduled maintenance and repair as defined throughout this RFP. The Contractor will develop a cost proposal that includes a labor rate for the various employee classifications and crews anticipated to perform the work inclusive of all small tools, transportation and labor costs. Such personnel may include electricians, technicians, helpers or laborers, welders, machinists, etc. An equipment list should also be submitted which provides a summary of all the maintenance and repair equipment expected to be required to perform the work and the cost, if any, for the use of this equipment. The equipment items may include testing equipment, welding

machines, hoists, cranes, vibration analysis, infrared testing, meggers, amp probes, air compressors and microfiltration membrane units, etc.

The City will pay the agreed labor and equipment rates for all unscheduled services delivered that are approved by the City per the terms of this RFP. Parts, supplies, equipment, and materials are approved by the City as part of unscheduled services will be paid by the City on a net cost basis as defined below. For jobs in excess of $1000, the City may request a not-to-exceed cost proposal for a defined scope of work. Under this type of negotiated work, the City will process payments submitted as a percent of the not-to-exceed cost and will not pay hourly rates for labor or equipment use.

11.4 Emergency Services

Emergency On-Call Service costs are those costs incurred by the Contractor to provide emergency maintenance and repair as defined throughout this RFP.

The Contractor will develop a cost proposal that includes a labor rate for the various employee classifications and crews anticipated to perform the work inclusive of all small tools, transportation and labor costs. Such personnel may include electricians, technicians, helpers or laborers, welders, machinists, etc. An equipment list should also be submitted which provides a summary of all the maintenance and repair equipment expected to be required to perform the work and the cost, if any, for the use of this equipment. The equipment items may include, testing equipment, welding machines, hoists, cranes, etc. The City will pay the agreed equipment and labor rates for all emergency services delivered that are approved by the City per the terms of this RFP. Parts, supplies, and materials delivered to the City, as part of emergency services will be paid by the City on a net cost basis, as defined below.

11.5 Equipment and Parts Allowance

Equipment and parts used during the course of this Contract will be purchased separately under the equipment and spare parts allowance. The cost shown in the Proposal Form is an estimated amount only and does not obligate the City to purchase any equipment or spare parts under this Contract.

11.6 Definitions

11.6.1 Net Cost

In invoicing the City for unscheduled and emergency maintenance and repair, the Contractor may only charge the City the Net Cost for parts, equipment, rented equipment and subcontracted services. The net cost of parts, equipment, and rented equipment shall be defined as the Vendor's invoice cost plus fifteen percent (15%) markup. Subcontracted services shall be invoiced at cost plus Ten percent (10%) markup. The Contractor's invoices to the City for unscheduled and emergency services shall include copies of actual invoices from the manufacturers, suppliers or subcontractors supplying parts, equipment or services to the Contractor. The Contractor shall not charge administrative labor costs related to procurement or utilization of parts, rented equipment or subcontracted services.

11.6.2 Unusual Costs

The Contractor may petition the City for an adjustment to the Annual Inspection and Maintenance cost at reasonable times on the basis of unusual changes in the Contractor's cost of doing business. For purposes of this section, unusual changes are items not covered by the agreement that occur as a result of external events and through no fault of the Contractor such as changes in local, state, or federal laws or regulations, natural catastrophes, civil disturbances, or similar extraordinary events. The term will not include price increases occurring in the ordinary course of doing business.

11.6.3 Cost Adjustment for Changes in Equipment

The annual inspection cost will be adjusted to correspond to changes in the equipment at the various pumping stations. These adjustments may be negotiated after three months or four times during the contract year.

11.7 Invoicing Policies and Procedures

11.7.1 Frequency

The City will accept either one invoice per month or one invoice per quarter for Annual Inspection and Maintenance services. In addition, the City will accept no more than one invoice per month for costs incurred for unscheduled and emergency services provided during the preceding month or not previously invoiced. The invoices shall be submitted together.

11.7.2 Format

a) The invoice must include a description of the work performed and copies of the service reports for all work performed during the prior period.

b) Invoicing for unscheduled and emergency service costs: All invoices for unscheduled and emergency service costs must be pre-approved by the City. Such costs will be actual net costs as paid by the Contractor and will be supported by detailed time and expense reports and line item documentation of costs incurred (e.g.: hours, parts, subcontractor services. etc.). Copies of all invoices for parts, subcontracted services, etc. must be included with the invoice.

c) For negotiated not-to-exceed work as discussed in Section 5, the Contractor must indicate the work completed for the month and estimate the percentage of the total work completed. For larger jobs, the City may request a schedule of values to assist with determining the percent complete during the billing period. The schedule of values would be prepared by the Contractor but must be approved by the City.

d) When invoicing miscellaneous materials and supplies with an aggregate value of $100 or less, a detailed breakout of the items and component costs need not be included with the invoice.

e) A copy of the new entries to the maintenance and repair log must be provided with each invoice.

f) The Contractor shall include invoicing for the lump sum annual evaluation and report preparation as a component of the monthly bills. It is anticipated that the annual evaluation will be performed shortly after the notice to proceed is issued and that billing of the lump sum item for that work will be accepted after submittal of the required bound report.

g) On a Quarterly basis, provide a running total summary (Year to date) of hours utilized in each unscheduled and emergency line item in the Proposal Form.

11.7.3 Certification and Payment

The monthly invoices will each include a statement certifying that the charges billed to the City are true and accurate and were incurred in the performance of the terms of the contract. The Contractor's authorized representative will sign such statement. Any unused material and tools must be returned to the City. **Please Note that all invoices submitted to the City must include the percentage of DBE Participation as a percentage of the invoiced amount. This DBE participation amount must be highlighted and shown on a monthly and Contract to Date Basis.**

The City will pay the Contractor within sixty (60) days of the City's receipt of an acceptable invoice. The City will pay the Contractor for all items invoiced over which there is no dispute so that payment for undisputed items is prompt. Payment for disputed items will be made when disputes are resolved.

11.7.4 City's Right to Review Billing Documentation

The City reserves the right to request additional documentation from the Contractor prior to paying any disputed portion of the invoice. Such documentation may include, but is not limited to invoices to the Contractor for parts or subcontracted services and payroll registers. The City reserves the right to audit the Contractor's records and books pertaining to this contract.

12. CONTINUITY OF SERVICE

12.1 Notice of Intent Not to Renew

The Contractor must recognize that the services to be provided are vital to the City and must be maintained without interruption and that upon expiration or termination of the contract, a successor will continue these services. Therefore, if the Contractor chooses not to pursue the renewal of the next contract term upon contract expiration, the Contractor is required to provide the City a written notice of such intent at least three (3) months before the expiration of the contract. Should the Contractor fail to provide timely notice, the City reserves the right to require continued performance of the agreement by the Contractor under the terms of the

contract for a period of up to six (6) months from receipt of a written notice of intent or from the date of expiration of the agreement, whichever is earlier.

12.2 Phase In – Phase Out

If, upon expiration or termination of the contract, the Contractor is not chosen to renew the agreement, the Contractor will, upon written notification from the City, provide phase-in, phase-out services for up to sixty (60) days after the contract expires or is terminated. After notification, the Contractor will cooperate in good faith with a successor in determining the nature and extent of the services, subject to approval by the City.

The Contractor will provide sufficient experienced personnel during the transition period to ensure that all services called for by the contract are maintained at the specified level of contract performance. The Contractor will be reimbursed for all reasonable costs pre-authorized by the City, which are incurred within the agreed period after agreement expiration or termination.

II. PROPOSAL SUBMISSION REQUIREMENTS, GUIDELINES AND CONSIDERATIONS

1. PROPOSAL SUBMISSION

1.1 Pre-Proposal Conference

It is recommended that interested parties attend the pre-proposal conference and tour of the City of Wilmington pump station facilities which will be held at a time and date to be confirmed at the following location:

Louis L. Redding City-County Building
6th Floor – Department of Public Works
800 French Street
Wilmington, Delaware 19801-3537

All interested Contractors must provide notice of their intent to attend the conference and the names of their attendees to Mr. Sam Baise, Jr. at (302) 573-5788.

1.2 Proposal Submission Address

Proposals shall be received by the City of Wilmington at the following location:

Louis L. Redding City-County Building
5th Floor – Division of Procurement and Records
800 French Street
Wilmington, Delaware 19801-3537

1.3 Number of Copies

One (1) original and six (6) copies of each proposal must be submitted in a sealed container marked with the Contractor's name and the reference number for this RFP. Each Contractor's Technical and Cost Proposals must be bound together within the Contractor's Proposal.

1.4 Late Proposals

Any proposal received after the date and time specified above *will not be considered* for contract award and will be returned to the Contractor unopened.

1.5 Penalties for Misrepresentation

Any material misrepresentation in the Contractor's proposal could result in termination of the contract, or any other appropriate administrative sanctions and/or legal actions.

2. PROPOSAL SIZE, CONTENT, AND ORGANIZATION

A proposal will set forth full, accurate, and complete information as required by this section and other sections of this RFP. Proposals will be arranged in two parts. Part I will be titled and consist of the "Technical Proposal" and Part II will be titled and consist of the "Cost Proposal".

2.1 Technical Proposal

Part I of the Contractor's proposal will present the technical elements of the proposal and must consist of the following sections:

2.1.1 Corporate Overview

This section of the proposal will present an overview of the Contractor's organization and will include the firm's name, address, phone and fax numbers; the firm's history; appropriate company's state and federal registration numbers; name, title, address, and phone number of the firm's representative for the proposal; the firm's annual reports or financial statements for the past three (3) years. The financial reports can be appended to the proposal.

The proposal will describe in detail the firm's capabilities to perform the Specialized Services listed in Section 5.1.6. A list of all specialized equipment that the Contractor owns should also be included as well as a listing of the specialized equipment that the Contractor would rent. The specialized equipment that would be used without cost to the City should be identified along with the specialized equipment which would be rented and billed to the City.

The proposal will also provide a list of all manufacturers and products for which the Contractor is an authorized distributor of spare parts and equipment or certified repair facility.

NOTE: The Successful Contractor will have demonstrated at least two successful projects of similar nature and size for Municipalities of similar or larger size.

2.1.2 Approach

The main objective of this Request for Proposals is to continue to improve the delivery of electrical systems maintenance and repair services and to reduce overall maintenance related costs. The Contractor should clearly outline its methodology and approach to achieve these goals as an integral part of this section.

This section of the proposal will consist of a statement of understanding concerning the objectives of the proposed relationship and how the objectives may best be accomplished. It also will present a detailed description of the Contractor's proposed approach to providing each of the services specified in this RFP. This section will describe the services to be provided, will provide the services, how the services will be provided, and the management systems the Contractor will use to support provision of services and accomplishment of performance objectives and standards.

Any requirements for sub-contracting services required to perform the maintenance and repair work normally expected with the electrical equipment at the pumping stations service must be fully described. If the Contractor desires to use a subcontractor in the performance of the work and the subcontractor is not named in the Contractor's proposal, the use of the subcontractor must be approved prior to their participation in this project. Approval of subcontractors at a later date as the project proceeds is not assured. The use of DBE subcontractors is encouraged.

Thus, this section will include a description of things such as the processes to be used to schedule services to minimize disruption to the conduct of the City's business, to control the quality of services provided, to track the work that is accomplished, and to otherwise accomplish the City's objectives. The Contractor must ensure that each of the requirements of the RFP is clearly and completely discussed in this section of the proposal.

2.1.3 Service Alternatives and Exceptions

This section of the proposal provides the Contractor the opportunity to suggest alternatives to the scope of services and conditions set forth in this RFP which, in the Contractor's judgment, will further advance accomplishment of the City's maintenance objectives. Also, the Contractor must state in this section whether it takes exception to any provision set forth in this RFP.

The City prefers to receive technical proposals that are inclusive of all provisions set forth in this RFP without exception and to have Contractors define alternatives in terms of changes in the technical and cost proposals which will enable the City to clearly and consistently evaluate the merits of these alternatives relative to the scope of services and conditions set forth in this RFP.

This section is mandatory. Failure of a Contractor to include this separate section in its proposal will confirm that the Contractor takes no exception to the terms and conditions specified in this RFP, and offers no alternative terms and conditions.

2.1.4 Organization and Staffing

This section will present the Contractor's proposed organization structure, and will present a staffing chart showing specific job classifications, number of employees and full-time equivalent employees (FTE) by position; and reporting relationships. The point of contact for this contract should be identified as well as the back-up person and methods proposed to ensure responsiveness to City requests. Résumés for all key maintenance positions will be provided in sufficient detail to be able to determine the nature and depth of each individual's relevant experience and their relationship to the Contractor.

If subcontractors are anticipated to perform a regular part of the work, include details of organization and staffing of the subcontractor in the proposal.

2.1.5 Qualifications and Experience

In this section of the proposal the Contractor will describe its track record in performing services comparable to those specified in this RFP, and information relevant to making a determination as to the ability of the Contractor to perform these services. The Contractor will describe its

experience with equipment similar to the full range of electrical equipment and systems in the City's water pumping facilities.

This section will include a list of all work of this nature the Contractor has performed within the past five years. This list will include the name of each client, a client contact and telephone number, the size and composition of the client facilities, the scope of services provided, effective dates of the contract(s) with this client, and the annual contract cost. NOTE: The Successful Contractor will have demonstrated at least two successful projects of similar nature and size for Municipalities of similar or larger size.

If subcontractors are anticipated to perform a regular part of the work, include details of qualifications and experience of the subcontractors in the proposal.

2.2 Cost Proposal

Part II of the Contractor's proposal will present the business elements of the proposal and must consist of the following sections:

2.2.1 Annual Inspection and Maintenance Cost Proposal

The Contractor must use the Proposal Form (Appendix C) for the presentation of its Annual Inspection cost proposal. Contractors are to submit one lump sum cost for the Annual Inspection inclusive of all parts, supplies, equipment, outside services, overhead costs and general administrative costs as well as reporting requirements including preparation and updating of the maintenance log.

2.2.2 Annual Maintenance Recommendations Report Cost Proposal

The total costs for the annual evaluation of City water distribution facilities as described in Section 5, Paragraph 5.1.1 must be included in the separate lump sum item included in the Proposal Form attached in Appendix C.

2.2.3 Unscheduled On-Call Cost Proposal

The Contractor must include in its response to this RFP its proposed Unscheduled On-Call labor rates for all labor designations including electricians, technicians, 2 person crews (Lead with helper and two leads), welders, riggers, machinists, laborers, etc. Similarly, the Contractor must include a list of equipment rental rates for equipment that it owns which would be utilized at cost to the City. These labor and equipment rental rates (such as vibration alignment equipment, megometers and infrared equipment) will establish the maximum rate that the Contractor will charge for providing these unscheduled services. Cost for parts and supplies should not be included in the unscheduled on-call services. The total contract cost will be established in the Proposal Form (Appendix C) which must be completed as part of the cost proposal. The quantities shown on the Proposal Form are estimates for comparison only and do not obligate the City in any way.

2.2.4 Emergency Services Cost Proposal

The Contractor must include in its response to this RFP its proposed Emergency Services labor rates for all labor designations including electricians, technicians, 2 person crews, (lead with helper and two leads), welders, riggers, machinists, laborers, etc. Similarly, the Contractor must include a list of equipment rental rates for equipment that it owns which would be utilized at cost to the City. These rates will establish the maximum rate that the Contractor will charge for providing these emergency services. Cost for parts and supplies should not be included in the emergency services. The total contract cost will be established in the Proposal Form (Appendix C) which must be completed as part of the cost proposal. The quantities shown on the Proposal Form are estimates for comparison only and do not obligate the City in any way.

2.2.5 Equipment and Parts Allowance

Equipment and spare parts used during the course of this Contract may be purchased separately under the parts allowance set forth in Appendix C.

2.3 Contractor Selection Process

The City will evaluate all proposals submitted in detail. This RFP is not to be construed as a guarantee that a contract will be awarded. The City expressly reserves the right to reject all proposals received and to have all or a portion of the work performed by its own personnel. Furthermore, the City expressly reserves the right to reject any and all proposals for any reason, and to waive any of the terms, conditions, and provisions contained in the RFP. Such waiver will be at the discretion of the City, to the advantage of the City, and in the City's interest.

A City team will review and evaluate all proposals submitted in response to this RFP. The Committee will conduct a preliminary evaluation of all proposals on the basis of the information provided in the technical proposal. The City reserves the right to make on-site visitations to assess the capabilities of individual Contractors and to contact references provided with the proposal. In addition, the City may arrange for discussions with firms submitting proposals, if required, for the purpose of obtaining additional information or clarifications. Following the review of technical proposals, the team will conduct a similar review of cost proposals.

Based upon the results of the evaluation by the team, the City may elect to interview the top ranking Contractor(s). The City will consider the following attributes of each Contractor's proposal in making this determination. *Contractors should not construe the order of these attributes as a measure of their relative importance in the evaluation.*

- Organization and staffing
- Point of Contact and other key personnel qualifications and experience
- Contractor financial capability, qualifications, and experience in electrical equipment and systems maintenance and repair.
- Understanding of the project
- Responsiveness to RFP requirements
- Proposed exceptions and innovations

- Approach to providing services
- Quality assurance plan
- Overall cost
- Itemized labor and equipment rates

The team will enter into negotiations with the highest rated qualified Contractor if the team considers it to be advantageous to the City. The Contractor and the evaluation team may negotiate any changes desired in the RFP if deemed in the best interest of the City. If a satisfactory proposed agreement cannot be negotiated with the highest rated qualified Contractor, negotiations will be formally terminated. Negotiations will then be undertaken with the second most qualified Contractor, and so on until an agreement is reached or the City formally rejects the remaining proposals or cancels the solicitation process.

2.4 Award As An Entirety

The City requests Respondents to include costs for all items for the purpose of Evaluation of Proposals. While the proposals are asked for by items, the Contract may or may not be awarded by items, and may or may not be awarded as an entirety.

The City reserves the right to award this Contract or a portion thereof to more than one Responder.

III. GENERAL CONTRACT PROVISIONS

1. BIDDING PROVISIONS

1.1 Officials Not to Benefit

Each Contractor shall certify, upon signing a bid or proposal, that to the best of his or her knowledge, no City of Wilmington official or employee having official responsibility for the procurement transaction, or member of his or her immediate family, has received or will receive any financial benefit relating to the award of this contract. If such a benefit has been received or will be received, this fact shall be disclosed with the bid or proposal or as soon thereafter as it appears that such a benefit will be received. Failure to disclose the information prescribed above may result in suspension of debarment or rescission of the contract made, or could affect payment pursuant to the terms of the contract.

1.2 Prohibition Against Uniform Pricing

In submitting a bid, each Contractor shall, by virtue of submitting a bid, guarantee that it has not been a party with other Contractors to an agreement to bid a fixed or uniform price. Violation of this guarantee may render void the bids of participating Contractors.

1.3 Freedom of Information Act

The City of Wilmington is required to comply with the State of Delaware Freedom of Information Act, 29 DEL.C. ɔ10001.et seg. Unless specifically exempted (e.g. trade secrets), all information submitted by the Contractor to the City may be subject to disclosure by the City upon proper request thereafter. The Contractor shall specifically indicate all information that it considers confidential by clearly marking it as such.

2. GENERAL AREAS

2.1 Indemnification

Contractor shall defend, indemnify and hold harmless the City, its agents, officials, and employees against any and all claims of injuries, death, damage to property, patent claims, suits, liabilities, judgments, costs and expenses (including reasonabl ttorney's fees), which may otherwise accrue against the City in consequence of the granting of this contract or which may otherwise result therefrom, if it shall be determined that the wrongful or omission act was caused through the negligence or error of the Contractor or its employees, or that of its Subcontractors', if any; and the Contractor shall, at his or her own expense, appear, defend, and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith.

If any judgment shall be rendered against the City in any such action, the Contractor shall, at his or her own expense, satisfy and discharge the same. The Contractor expressly understands and agrees that any performance bond or insurance protection required by this contract, or otherwise

provided by the Contractor shall in no way limit the responsibility to indemnify, keep and hold harmless and defend the City as herein provided.

2.2 General Guaranty

Contractor agrees to:

Save the City, its agents and employees harmless from liability of any nature or kind for the use of any copyrighted or uncopyrighted composition; secret process, patented or unpatented invention; article or furnished or used in the performance of a contract for which the Contractor is not the patentee, licensee or owner.

Protect the City against defective material or workmanship and to repair or replace any damages or marring occasioned in transit or delivery.

Furnish adequate protection against damage to all work and to repair damages of any kind to the building or equipment, to his or her own work or to the work of other contractors, for which his or her workers are responsible.

Pay for all permits, licenses and fees and give all notices with all laws, ordinances, rules and regulations of the City. The Contractor shall obtain all licenses and permits required for the performance of the work specified in this RFP. Licenses and permits included but are not limited to a license to do business in the City of Wilmington, fire code permits, commercial driver's licenses, and various mechanic certifications.

Protect the City from loss or damage to City-owned property while it is in the custody of the Contractor.

2.3 Guarantee and Warranties

All guarantees and warranties required shall be furnished by the Contractor and shall be delivered to before final payment on the contract is made. Unless otherwise stated, manufacturer's standard warranty applies.

2.4 Service Contract Guaranty

Contractor agrees to:

Furnish services described in the solicitation and resultant contract at the times and places and in the manner and subject to conditions therein set forth provided that the City may reduce the said services at any time.

Enter upon the performance of services with all due diligence and dispatch, assiduously press to its complete performance, and exercise therein the highest degree of skill and competence.

All work and services rendered in strict accordance with all laws, statutes, and ordinances and the applicable rules, regulations, methods and procedures of all government boards, bureaus, offices and other agents.

Allow services and Contractor facilities to be inspected or reviewed by an employee of the City at any reasonable time and place selected by the City. The City of Wilmington shall be under no obligation to compensate Contractor for any services not rendered in strict conformity with the contract.

Stipulate that the presence of a City Inspector shall not lessen obligation of the Contractor for performance in accordance with the contract requirements, or be deemed a defense on the part of the Contractor for infraction thereof. The Inspector is not authorized to revoke, alter, enlarge, relax or release any of the requirements of the contract documents. Any omissions or failure on the part of the Inspector to disapprove or reject any work or material shall not be construed to be an acceptance of any such defective work or material. Notification of an omission or failure will be documented by the City.

2.5 Misrepresentation

In all areas of Contractor's provision of service and interaction with the City, Contractor will bargain in good faith and with full disclosure.

Purposeful misrepresentation to the City of any information on behalf of Contractor can be terms for immediate cancellation of contract without further obligation on the City's part.

2.6 Termination for Cause and Default

In the event the Contractor shall default in any of the terms, obligations, restrictions or conditions in the contract, the City shall give written notice by certified mail, return receipt requested to the Contractor of the default and that such default shall be corrected or actions taken to correct such default shall be commenced within ten (10) calendar days thereof. In the event the Contractor has failed to correct the conditions of default or the default is not remedied to the satisfaction and approval of the City, the City shall have all legal remedies available to it, including, but not limited to termination of the contract in which case the Contractor shall be liable for all procurement and reprocurement costs and any and all damages permitted by law arising from default and breach of Contract.

In the event of default, the Contractor agrees to surrender peacefully any equipment or supplies and cooperate to the extent necessary to enable the City or another Contractor to take over and carry out the services herein described. All payments by the City, except for those services previously rendered or costs incurred and reimbursable to the Contractor pursuant to this contract shall cease. The Contractor agrees that in the event it disputes the City's right to invoke the provisions of this section it will not seek injunctive or other similar relief, but will either negotiate an adjustment of the matter with the City or seek, as its remedy, monetary damages in a court of competent jurisdiction.

2.7 Audit Rights

The City reserves the right to audit the records of the Contractor at any time during the performance and term of the contract and for a period of three (3) years after completion and acceptance by the City. If required by the City, the Contractor shall agree to submit to an audit by an independent certified public accountant selected by the City. The Contractor shall allow the City to inspect, examine and review the Contractor's records at any and all times during normal business hours during the term of the contract.

2.8 Assignment

The Contractor shall not assign, transfer or subject the contract or its rights, title or interests or obligations therein without the City's prior written approval.

Violation of the terms of this paragraph shall constitute a breach of the contract and the City may, at its discretion, cancel the contract and all rights, title, and interest of the Contractor shall thereupon cease and terminate.

2.9 Insurance

The Contractor shall obtain at its expense, at a minimum, insurance coverage as set forth below within ten (10) days of contract award, send a duplicate copy of the insurance policies to the City and keep such insurance in force throughout the contract period. All insurance provided by the Contractor as required by this section, except comprehensive automobile liability insurance, shall set forth the City as an additional insured. All Insurance shall be written with responsible companies licensed by the State of Delaware with a duplicate copy to be sent to the City within ten (10) days of contract award. The policies of insurance shall provide for at least thirty- (30) days written notice to the City prior to their termination.

Public Liability and Property Damage Insurance: Insurance against liability for personal and bodily injury and property damage in the amount of $1,000,000 for each individual and $2,000,000 in the aggregate (liability) and $1,000,000 (property).

Workers' Compensation: The Contractor shall carry Workers' Compensation insurance covering all of its employees employed upon the premises and in connection with its other operations pertaining to this agreement. The Contractors shall agree to comply at all times with the provisions of the workers' compensation laws of the State of Delaware.

Comprehensive Automobile Liability Insurance: The Contractor shall carry comprehensive automobile liability insurance applicable to owned, non-owned, and hired vehicles against liability for bodily injury and property damage in an amount not less than that required by laws of the State of Delaware.

2.10 Performance and Payment Security

Prior to contact execution and within ten (10) days after the date of award, the successful Contractor shall provide the City with performance security securing performance and fulfillment of the Contractor's obligations under the contract in the form of a bond, certified check payable to the "City of Wilmington Treasurer," or irrevocable letter of credit issued by an insured financial institution. Due to the essential and critical nature of goods and services being specified in this RFP, the performance security shall be in an amount equal to 50 percent of the current year's Annual Inspection Budget.

Thirty (30) days prior to the expiration of each contract year, the Contractor shall submit performance security, in an amount such that the total security remains equal to 50 percent of the contract's cost for the upcoming year if the City and the Contractor agree to extend the contract. The performance security will be returned to the Contractor upon satisfactory performance sixty (60) days after expiration or termination of this contract.

Any change in work, extension of time, or termination of this contract, shall in no way release the Contractor or any of its sureties from any of their obligations.

The City's failure at any time to require performance of any provisions thereof by the Contractor shall in no way affect the right of the City thereafter to enforce same. Nor shall any waiver by the City or any breach of any provision hereof be taken or held to the waiver of any succeeding breach of such provision or as a waiver of any provision itself.

2.11 Disclosure of Information

No information regarding the Contractor's performance of the contract shall be disclosed by the Contractor to anyone other than the City unless written approval is obtained in advance from the City.

2.12 Safety Requirements

The Contractor shall furnish adequate safety equipment and comply with the various OSHA regulations established by the Federal Government, the State of Delaware and amendments and changes that may occur from time to time.

All work will be conducted in a safe manner and will comply with the requirements of State and local rules and regulations and OSHA safety standards. Prior to commencement of the work, the Contractor will meet in conference with a representative from risk management to discuss and develop a mutual understanding relative to the administration of the City safety program.

If at any time the Contractor fails or refuses to comply with Federal, State, or City safety requirements, the City may issue an order to stop all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop order will be made the subject of any claims for excess cost, damages or extension of time against the City, its agents or employees.

3. EMPLOYMENT PROVISIONS

3.1 Goal Statement for Disadvantaged Business Participation

In order to expand opportunities and insure fair participation for disadvantaged individuals and businesses in its professional services contracts, the City has set a goal of 10% Disadvantaged Business Enterprise (DBE) participation for its procurement of such services.

Except to the extent that the City determines otherwise, the Contractor shall endeavor to achieve and show evidence of good faith efforts to contract with disadvantaged individuals or businesses.

In the performance of any contract resulting from this RFP, the Contractor agrees to make its best efforts to include DBE as subcontractors.

Question regarding the DBE program should be directed to the City's EEC/Contractor Compliance Office at (302) 576-2131

3.2 Non-Discrimination Policies

In the performance of this contract, neither party shall discriminate nor permit discrimination on the basis of race, sex, age, religion, creed, handicap, or national origin.

3.3 EOE Notices in Advertising

The Contractor must comply with equal opportunity employment statutes and regulations in advertising and hiring practices.

APPENDIX A

Equipment List

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: Alapocas Pumping Station
Electrical Equipment:
Primary disconnect switches and fuses, consisting of:
- 1 - Fused disconnect switch, 5 kV, 3-pole
- 1 - Key interlock

Distribution transformers, consisting of:
- 3 - 225 kVA, 1-phase, 4160-480 volts, oil-type

Motors and cables for pumps, consisting of:
- 3 - Induction motor, 75 hp, 480 V, 3-phase

Motor control center, Square D Model 6, 4 sections, consisting of
- 1 - Main Breaker, 350A
- 3 - Pump Feeders to motor controllers, 250A
- 1 - Feeder to Htr #1, 25A
- 1 - Feeder to Meter House, 50A
- 1 - Cellular Feeder, 100A
- 1- TVSS, 30A
- 1- Auto Xfer Switch
- 1- 20 Circuit Load Center
- 1- 5 KVA XFMR

Dry-type transformer, 3 kVA, 480-240/120V, 1-phase
Lighting panel, 240/120V, 1-phase, 3-wire, 100 amp main lugs, 6 circuits
Electric unit heater, 15 kW, 480V, 3 phase
Telemetering cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Station: Brandywine Membrane Complex

Electrical Equipment:

Primary Unit Substation, consisting of:

- 1 - 15kV fused main load break switch with lightning arresters, voltmeter, ammeter
- 1 - 15 kV transition section
- 1 - 2500 kVA transformer, 12,000-2400V Delta to 480 Wye/277V Secondary, oil-filled
- 1 - 480V transition section
- 1 - 480V main circuit breaker
- 1 - 480 V Feed to MSB Switchborad

MSB Switchborad

- 1 - 480/277V 3 phase, 4 wire, 4000 A bus; 65 KAIC, SUSE
- 1 - Portable Generator Feeder Connection - 480/277 V, 3 phase, 4W, 2000A Bus;
- 2 - Feeders - one each to MSB-1 and MSB-2

MSB-1 Switchboard

- 1 - Feeder to MCC-1
- 1 - Feeder to High Zone Pump 1 - 450 hp, 480 V, 3 phase, 800 Amp
- 1 - Feeder to Low Zone Pump 1 - 250 hp, 480 V, 3 phase, 600 Amp
- 1 - Feeder to Membrane Pump 1 - 200 hp, 480 V, 3 phase, 400 Amp
- 1 - Feeder to Membrane Pump 3 - 200 hp, 480 V, 3 phase, 400 Amp
- 7 - Feeder to Distribution Panels
- 1 - 75 kVA Transformer, Dry Type, 480 V Delta Primary, 240 V Delta Secondary, 3 Phase

MSB-2 Switchboard

- 1 - Feeder to MCC-2
- 1 - Feeder to High Zone Pump 2 - 450 hp, 480 V, 3 phase, 800 Amp
- 1 - Feeder to Low Zone Pump 2 - 250 hp, 480 V, 3 phase, 600 Amp
- 1 - Feeder to Membrane Pump 2 - 200 hp, 480 V, 3 phase, 400 Amp
- 1 - Feeder to Low Zone Pump 3 - 250 hp, 480 V, 3 phase, 600 Amp
- 3 - Feeder to Distribution Panels
- 1 - 112.5 kVA Transformer, Dry Type, 480 V Delta Primary, 120/208 V Secondary, 3 Phase

480V Motor Control Center MCC1, 600A, 480V, 3 Phase, 3Wconsisting of:

- 1 - Incoming Cable section
- 1 - 480V controller for Exhaust Fan 1 - 30A; 1.5 Hp
- 1 - 480V controller for Exhaust Fan 3 - 30A; 1.5 Hp
- 1 - 480V controller for Exhaust Fan 5 - 30A; 0.75 Hp
- 1- 480V controller for Strainer Pump 1 - 1/2 Hp, 30A
- 1-.. 480V controller for Strainer Pump 3 - 1/2 Hp, 30A
- 1- 480V controller for Hypo Pump A - 3 Hp, 30A
- 1- 480V controller for Neutral Recirc Pump 1 - 10 Hp, 30A
- 1- 480V controller for Rev. Filter 1 - 25 Hp, 100A
- 1- 480V controller for CIP Recirc 1 - 10 Hp, 30A
- 1- 480V controller for CIP Drain 1 - 10 Hp, 30A
- 1- 480V controller for Caustic Heater - 100A
- 1- 480V controller for Air Compressor A - 30 Hp, 100A

480V Motor Control Center MCC2, 600A, 480V, 3 phase, 3Wconsisting of:

- 1 - Incoming Cable section
- 1 - 480V controller for Exhaust Fan 2 - 30A; 1.5 Hp
- 1 - 480V controller for Exhaust Fan 4 - 30A; 1.5 Hp
- 1 - 480V controller for Intake Fan 1 - 30A; 1.5 Hp
- 1- 480V controller for Strainer Pump 2 - 1/2 Hp, 30A
- 1- 480V controller for Hypo Pump B - 3 Hp, 30A

1- 480V controller for Neutral Recirc Pump 2 - 10 Hp, 30A
1- 480V controller for Rev. Filter 2 - 25 Hp, 100A
1- 480V controller for CIP Recirc 2 - 10 Hp, 30A
1- 480V controller for CIP Drain 2 - 10 Hp, 30A
1- 480V controller for CIP Acid Heater - 100A
1- 480V controller for Air Compressor B - 30 Hp, 100A

Dry-type Transformes and cables, consisting of:

1- 2500 kVA, 12000-480Y/277 Volts, 3-phase, feeding MSB 1 and 2
1 - 112.5 kVA, 480-208Y/120 Volts, 3-phase, feeding Panelboards
1 - 75 kVA, 480-240 Delta, 3-phase, feeding Panelboards

Membranes

Microza Microfiltration Modules – 0.1 micron rater (Pall Corporation), and all ancillary pumps, valves, actuators and tanks. Four (4) racks of Ninety Four (94) modules each, for a total of 376 modules. Scope includes all valve racks, control equipment, feed pumps, strainers, CIP Equipment, valves and instruments.

Air Compressors

Two (2) Atlas Copco GA22P FF Air Compressors, Serial Numbers API 320892/3; 153 psi=MAWP; 460 Volt; 30 Hp
Two (2) Stand Alone Atlas Copco Air Drying Units

Panelboard and cables
Motorized valves, including disconnects
Wireways, junction boxes, conduits, wires
Lighting and receptacles

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: Brandywine Pumping Station
Electrical Equipment:
12 kV Switchgear, 15kV class metal-enclosed, indoor, S&C Electric, consisting of:
- 2 - Main fused interrupting switches, 1200A, 300MVAIC, 40kA fault closing
- 4 - Feeder fused interrupting switches, 600A, 300MVAIC, 40kA fault closing

15kV Cables from 12kV Switchgear to 1500 kVA transformers
Substation Transformers, consisting of:
- 4 - 1500 kVA, 12,000-2400Y/1385 volts, 3-phase, oil-filled (PCB), self-cooled, indoor delta-wye, 65 deg C rise, GE

2.4kV Cables from Substation Transformers to 2.4kV Switchgear
2.4kV Switchgear, 5kV class metal-enclosed, indoor, GE, consisting of:
- 2 - Main fused interrupting switches, 1200A
- 1 - Tie interrupting switch, 1200A
- 1 - Feeder fused interrupting switches, 600A, 300MVAIC, 40kA fault closing
- 1 - 2.4 kV, fused contactor feeding Pump 1 transformer

Motors and cables for pumps, consisting of:
- 1- Synchronous motor, 900 hp Pump 2E
- 1 - Induction motor, 1000 hp, 480 V, 3-phase, for Pump 1

Variable frequency drives, 480 volts, 3 phase, consisting of:
- 1 - Siemens VFD, 1000 hp, 480 Volts, for Pump 1

Soft Start, 480 Volts, 3 phase
- 1- Benshaw Reduced Voltage Soft Start for Pump 1

Emergency diesel generator, 50 kW, 240V, 3 phase, with ATS and day tank
Panelboards and cables
Telemetering cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: Cool Spring Pumping Station
Electrical Equipment:
12 kV Switchgear, 15kV Cat A, outdoor, 3 bay, S&C Electric, consisting of:
- 2 - Incoming Power operated, main fused disconnect,600A Load break with Key interlocks & arrest.
- 1 - Utility metering compartment including Control Power for heaters and operators

15kV Cables from 12kV Switchgear to Substation Transformer
Substation Transformer, consisting of:
- 1 - 750 kVA, 12,000-480 volts, 3-phase, Class 7300, cast coil, fan-cooled, outdoor type delta-wye, 80 deg C rise, Schneider-Square D

600V Cables from Substation Transformer to MCC-CS
480V MCC-CS, 1200A Silver plated, copper bus, drawout, indoor, Schneider-Square D, consisting of:
- 1 - Main circuit breaker, electronic trip with ground fault, trip unit with ammeter, ethernet comms card, power meter w/display, GFP relay, LSIG trip function
- 2 - 500A feeders to Pump Units No. 3 and No. 4 w/Robicon VFDs, 300 hp, 480 V, 3-phase,
- 1- 500A feeder to Pump Unit No. 5
- 1 - 300A feeder to 100KVA transformer
- 2 - 30A feeder to Control panel for Lift Station Pumps No. 1 & No.2
- 1 - 5A feeder to Exhaust Fan EF-1
- 1 - 3A feeder to Supply Fan SF-1
- 1 - 200A feeder to fused disconnect for feeder to Gatehouse
- 1 - 70A feeder to 45KVA transformer
- 1 - 60A feeder to future Monorail Hoist
- 1 - Automatic Transfer Switch, 1200A

Motors and cables for pumps, consisting of:
- 1 - Induction motor, 300 hp, 480 V, 3-phase
- 1 - Induction motor, 300 hp, 480 V, 3-phase
- 1 - Induction motor, 300 hp, 480 V, 3-phase
- 1 - Induction motor, 1.5 hp, 480 V, 3-phase
- 1 - Induction motor, 1 hp, 480 V, 3-phase

Reduced-voltage solid state starter and cables, consisting of:
- 1 - 480V, 300 hp, reduced-voltage solid-state (soft-start) starter for Pump No. 5

Dry-type Transformers and cables, consisting of:
- 1 - 100 kVA, 480-120/240 Volts, 1-phase, feeding Panel HP and Panel LPA via a 500A feeder
- 1 - 45 kVA, 480-208/120 Volts, 3-phase, 4W, feeding panel LP-B

Panelboards and cables, consisting of:
- 1 - Panel "HP", 240/120V, 1-phase 3-wire, 350 amp main breaker, 13 circuits
- 1 - Panel "LPA", 240/120V, 1-phase 3-wire, 400 amp main breaker, 33 circuits
- 1 - Panel "LPB", 208/120V, 3-phase 4-wire, 225 amp main breaker, 42 circuits
- 1 - Panel "DP-1", 480, 3-phase 3-wire, 200A fused disconnect, 70 amp main breaker, 24 circuits

SCADA cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles
500 KW Diesel Generator with 1000A feeder

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: Foulk Road Pumping Station
Electrical Equipment:
Motors and cables for pumps, consisting of:
2 - Induction motor, 25 hp, 240 V, 3-phase
Duplex pump controller for 2-25 hp motors
Main circuit breaker, 200 amp, 240 Volts, 3-pole, outdoor enclosure
Main disconnect switch, 200 amp, 240 Volts, 3-pole, outdoor enclosure
Distribution panelboard, 50 amp main breaker, 14-circuits
Circuit breaker, 20 amp, 3-pole for unit heater
Electric unit heater, 5 kW, 240V, 3 phase
Exhaust fan with electric motor, 1/4 hp, 120V, 1-phase
Sump pump, submersible, 1/3 hp, 120V, 1-phase
Telemetering cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: Hillcrest Pumping Station
Electrical Equipment:
Electrical Service

- 1- Incoming Power disconnect switch to power meter, 200A, 480V, 3-phase, 3 wire, 60 HZ
- 1- Fused disconnect switch from power meter, 200A, 480V, 3-phase, 3 wire, 60 HZ

Motors and cables for pumps, consisting of:

- 3 - Induction motor, 10 hp, 480 V, 3-phase
- 1 - Induction motor, 1 hp, 480 V, 3-phase with VFD and 30A unfused disconnect switch
- 1- Induction motor, 1/2 hp, 120 V, 1-phase (Sump Pump)
- 2- Induction motor, 1/6 hp, 120 V, 1-phase (EF-2 & EF-3)
- 1- Induction motor, 1/3 hp, 120 V, 1-phase (EF-1)

Motor control center, 480V, 3-phase, 3-wire, 600A main bus, Square D Model 6, 4 sections, consisting of

- 1 - Main breaker, 150A
- 1 - TVSS, 30A
- 3 - Pump Starters, with 30A breakers to each
- 1 - Automatic Transfer Switch, 150A
- 1 - Feeder breaker, 30A, to unit heater EUH-1
- 1 - Feeder breaker, 20A, to unit heater EUH-2
- 1 - Feeder breaker, 20A, to unit heater EUH-3
- 1 - Feeded breaker to 10 KVA Lighting XFMR, 30A
- 1- Lighting Load Center (LP-H), 120/240V, 3 wire, 1-phase, 100 amp main lugs, 20 circuits
- 1- Feeder breaker, 20A, to Sodium Hypochlorite Pump & VFD

Electric unit heater (EUH-1), 7.5 kW, 480V, 3 phase with 30A unfused disconnect
Electric unit heater (EUH-3), 5 kW, 480V, 3 phase with 30A unfused disconnect
SCADA cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles
50 KW Diesel Generator with 80A feeder

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: Hoopes Pumping Station
Electrical Equipment:
Outdoor substation, consisting of:
- 3 - Air break switch, 15 kV, 1-pole
- 3 - Fuses, 15 kV
- 3 - Lightning arrester, 15 kV, distribution type
- 1 - Substation transformer, 750 kVA, 11,800-480 volts, 3-phase, oil-filled, self-cooled, delta-wye 55 deg C rise, Westinghouse

Bus duct, 2000 amp, 480V, 3-phase, ventilated, non-segregated
Generator circuit breaker, 1200A, 480V, 3P, outdoor enclosure, with key interlock
Power distribution center, 2000A, 480V, 3P, iindoor, consisting of:
- 1 - Main breaker, 3000AF, 2000AT, 3P, with key interlock
- 5 - Reduced-voltage autotransformer starter with circuit breaker, 250 hp
- 2 - FVNR starter with circuit breaker for 3 hp motorized valve and chlorinator pump
- 3 - Circuit breakers for lighting transformer, accumulator and stub bus

Variable Frequency Drive
- 1- VFD, 250 Hp, 480 Volt, 3-phase for Pump No. 1

Motors and cables for pumps, consisting of:
- 5 - Induction motor, 250 hp,480 V, 3-phase

Dry-type Transformer and cables, 15 kVA, 480-208/120V, 3 phase
Panelboards and cables, consisting of:
- 1 - Panelboard, 208/120V, 3 phase, 4-wire, 6 circuits
- 1 - Panelboard, 208/120V, 1 phase, 3-wire, 6 circuits

Telemetering cabinet
Checktronic Control Valves
- 5 - Checktronic Controlled valves on each pump discharge

Wireways, junction boxes, conduits, wires
Lighting and receptacles

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: Kennett Pike Pumping Station
Electrical Equipment:
Electrical Service

- 1 - Incoming Power disconnect switch to power meter, 200A, 480V, 3-ph, 3 wire, 60 HZ
- 1 - Fused disconnect switch from power meter, 200A, 480V, 3-phase, 3 wire, 60 HZ

Motors and cables for pumps, consisting of:

- 1 - Induction motor, 50 hp, 480 V, 3-phase
- 2 - Induction motor, 15 hp, 480 V, 3-phase
- 1 - Induction motor, 1 hp, 480 V, 3-phase, with VFD and 30A unfused disconnect
- 1 - Induction motor, 1/2 hp, 480 V, 3-phase (EF-4)
- 1 - Induction motor, 1/6 hp, 120 V, 1-phase (EF-1)
- 1 - Induction motor, 1/4 hp, 120 V, 1-phase (EF-2)
- 1 - Induction motor, 1/3 hp, 120 V, 1-phase (EF-3)

Motor control center, Square D Model 6, 4 sections, consisting of

- 1 - Main breaker, 200A
- 1 - Automatic Transfer Switch, 200A
- 1 - TVSS, 30A
- 2 - Pump #1 and #2 motor starters with 40A feeders each * SEE NOTE BELOW
  *NOTE: Pumps 1 and 2 are in the process of an upgrade to azkawa VFD's and will be 30 HP motors in the Spring, 2021
- 1 - Pump #3 motor starter, 100A feeder
- 1 - Sodium Hypochorite pump & VFD, 20A feeder
- 1 - Feeder to XFMR for lighting panel LP-K, 30A
- 1- Distribution Panelboard DP-K1, 70A feeder

Dry-type transformer, 10 kVA, 480-240/120V, 1-phase
Lighting panel LP-K, 240/120V, 1-phase, 3-wire, 100 amp main lugs, 19 circuits
Distribution Panel DP-K1, 480V, 3-phase, 3-wire, 60 HZ, 12 circuits
Electric unit heater (EUH-1), 10 kW, 480V, 3-phase, with unfused disconnect
Electric unit heater (EUH-2), 20 kW, 480V, 3-phase, with unfused disconnect
Electric unit heater (EUH-3), 5 kW, 480V, 3-phase, with 30A unfused disconnect
SCADA cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles
100 KW Diesel Generator with 175A feeder

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: New Castle Pumping Station
Electrical Equipment:
Electrical Service
- 1 - Incoming Power disconnect switch to power meter, 200A, 480V, 3-ph, 3 wire, 60 HZ
- 1 - Fused disconnect switch from power meter, 200A, 480V, 3-phase, 3 wire, 60 HZ

Motors and cables for pumps, consisting of:
- 2 - Induction motor, 25 hp, 480 V, 3-phase
- 1- Induction motor, 1 hp, 480 V, 3-phase, with VFD and 30A unfused disconnect
- 1 - Induction motor, 1/3 hp, 120 V, 1-phase (EF-1)
- 1 - Induction motor, 1/6 hp, 120 V, 1-phase (EF-2)
- 1 - Induction motor, 1/6 hp, 120 V, 1-phase (EF-3)

Motor control center, Square D Model 6, 4 sections, consisting of
- 1 - Main Breaker, 200A
- 1 - TVSS, 30A
- 2 - Feeders to Pumps #1 & #2, 70A
- 3 - Feeders to unit heaters, 20A
- 1 - Sodium Hypochorite pump & VFD, 20A feeder
- 1 - Lighting Panel Feeder and XFMR, 30A
- 1 - Automatic Transfer Switch, 200A

Dry-type transformer, 10 kVA, 480-240/120V, 1-phase
Lighting panel, 240/120V, 1-phase, 3-wire, 100 amp main lugs, 20 circuits
Electric unit heater (EUH-1), 7.5 kW, 480V, 3-phase, with 30A unfused disconnect
Electric unit heater (EUH-2), 7.5 kW, 480V, 3-phase, with 30A unfused disconnect
Electric unit heater (EUH-3), 5 kW, 480V, 3-phase, with 30A unfused disconnect
SCADA cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles
50 KW Diesel Generator with 80A feeder

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Station: Orange Street Tunnel
Electrical Equipment:
Main Circuit Breaker, 100AF, 3P, 240V
Lighting panelboard
FVNR Starter, size 1
Junction boxes, conduits, wires
Lighting and receptacles

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Station: Porter Complex
Electrical Equipment:
Primary Unit Substation - North, consisting of:
- 1 - 15kV fused main load break switch with lightning arresters, voltmeter, ammeter
- 1 - 15 kV transition section
- 1 - 1500 kVA transformer, 12,000-2400V, oil-filled
- 1 - 2.4 kV transition section
- 1 - 2.4 kV main circuit breaker
- 1 - 2.4 kV transition section
- 1 - 2.4 kV feeder breaker to Alapocas Substation
- 1 - 2.4 kV feeder to MCC1A
- 1 - 2.4 kV feeder breaker to 225 kVA transformer 1
- 1 - 2.4 kV tie section

Primary Unit Substation - South, consisting of:
- 1 - 15kV fused main load break switch with lightning arresters, voltmeter, ammeter
- 1 - 15 kV transition section
- 1 - 1500 kVA transformer, 12,000-2400V, oil-filled
- 1 - 2.4 kV transition section
- 1 - 2.4 kV main circuit breaker
- 1 - 2.4 kV transition section
- 1 - 2.4 kV feeder breaker to 225 kVA transformer 2
- 1 - 2.4 kV feeder to MCC1B
- 1 - 2.4 kV tie circuit breaker
- 1 - 2.4 kV auto-transfer control and tie section

2.4 kV Motor Control Center MCC1A, consisting of:
- 1 - Incoming cable section
- 1 - 2.4 kV controller for Washwater Pump 1
- 1 - 2.4 kV controller for High Service Pump 2
- 1 - 2.4 kV controller for High Service Pump 4

2.4 kV Motor Control Center MCC1B, consisting of:
- 1 - Incoming cable section
- 1 - 2.4 kV controller for Washwater Pump 2
- 1 - 2.4 kV controller for High Service Pump 3
- 1 - 2.4 kV controller for future High Service Pump 5

Motors and cables for pumps, consisting of:
- 1 - Induction motor, 250 hp, 2300 V, 3-phase, for High Service Pumps 4
- 2 - Induction motor, 200 hp, 2300 V, 3-phase, for High Service Pumps 2 & 3
- 2 - Induction motor, 75 hp, 2300 V, 3-phase, for Washwater Pumps 1 & 2

480 Volt Motor Control Center MCC2A, 5 vertical sections, consisting of:
- 1 - Main circuit breaker, 350A
- 9 - FVNR Starter size 1 combination with circuit breakeer
- 12 - Feeder circuit breaker, 100AF
- 2 - Contactor, 30A, combination with circuit breaker

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Station: Porter Complex

Electrical Equipment:

480 Volt Motor Control Center MCC2B, 6 vertical sections, consisting of:

- 1 - Main circuit breaker, 350A
- 1 - Tie circuit breaker, 350A
- 1 - Automatic transfer switch, 400A
- 1 - Annunciator panel
- 17 - FVNR Starter size 1 combination with circuit breakeer
- 1 - Feeder circuit breaker, 100AF
- 1 - Feeder circuit breaker, 225AF

Dry-type Transformes and cables, consisting of:

- 2 - 225 kVA, 2400-480Y/120 Volts, 3-phase, feeding MCC2A & MCC2B
- 1 - 45 kVA, 480-208Y/120 Volts, 3-phase, feeding Panelboards

Panelboard and cables, consisting of:

- 1 - Panel ACB, 208/120V, 3-phase 4-wire
- 1 - Panel G, 208/120V, 3-phase 4-wire

Blowers

- 2- Roots 624 RAM Roof Top Air Blowers for the Air Scour System
  75 Hp; 3 psig; 1800 RPM; 10" Discharge; 460 V motor with V Belt Drive

Air Compressors

- 2- FS Curtis ML Series; 10 Hp; 460 V; 175 psi
  P/N: FML 10D97H1S - A4L1G1

Low Lift Pump Station

- 2- ABS Dry Pit Submersible Pumps, Model AFP D6001 ME 1500/10
  201.2 Hp; 460 V; 263 Amp;S/N 10304BA-225831
- 2- 24" Golden Anderson Check Valves
- 2- DeZurik 24" Butterfly Valves with Rotork Actuators

Solar Field

- 528 KW Solar Field
- 2- Xantrex 600 VDC to 480 VAC GT250 Grid Tie Inverters
- 2- 480 V 400 Amp Breakers, Square D, with Superlogic Surge Suppressor
- 1- 480 V 800 Amp Main Breaker Square D
- 1- 750 KVA, Square D 480v-2400V Dry Type Transformer, Class AA, Type VPI
- 1- Photovoltaic Smart Meter at 2400 Volts
- 1- Transition Section MCC
- 1- 2.4kV Main Switch
- 1- Incoming Feeder from main Substation

Emergency diesel generator, 1000 kW, 3 phase, 60 Hz, 1800 rpm, 0.8 pf, Cummins/Onan

Motorized valves, including disconnects

Wireways, junction boxes, conduits, wires

Lighting and receptacles

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Stationary Generator Sets

Porter Filter Plant:	1000KW, Cummins/Onan
Brandywine Pump Station:	50 KW, Cummins/Onan
Cool Spring Pump Station:	500 KW, Cummins/Onan - 1000Amp
New Castle Pump Station:	75 KW, Caterpillar - 80 Amp
Kennett Pike Pump Station:	100 KW, Cummins/Onan - 175 Amp
Hillcrest Pump Station:	50 KW, Cummins/Onan - 80 Amp

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Turner Complex Solar Field

1- Advanced Energey Solaron Inverter
1- Square D DC Disconnect
1- Square D AC Disconnect with Meter and Metering Transformer

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Water Storage Tanks

Rockford Tank
Electrical Equipment:
Lighting Panelboard, 240/120V, 1-phase, 3-wire
Heat tracing
Security system
Level instruments and telemetering
Lighting and receptacles

Greenhill Tank
Electrical Equipment:
Lighting Panelboard, 240/120V, 1-phase, 3-wire
Heat tracing
Level instruments and telemetering
Lighting and receptacles

Appendix A
Equipment List
City of Wilmington
Department of Public Works

Pumping Station: Wills Pumping Station
Electrical Equipment:
15 kV Switchgear, 600 Amp metal-clad, drawout, outdoor, Penn Panel, consisting of:
- 1 - Main incoming line circuit breaker with overcurrent relays
- 1 - Utility metering compartment

15kV Cables from Switchgear to Substation transformer
Substation Transformer, consisting of:
- 1 - 2000 kVA, 12,000-480Y, 3-phase, oil-filled (non-PCB), self-cooled, outdoor delta-wye, 80 deg C rise

600V Cables from Substation Transformers to Main Switchgear
600V Main Switchgear, metal-clad, drawout, indoor consisting of:
- 1 - Main circuit breaker, air-magnetic, drawout, with overcurrent relays, breaker control switch with red and green lights, voltmeter, ammeter with switches
- 1- 480V Yaskawa Matrix Type Variable Frequency Drive
- 1- 480V Benshaw Reduced Voltage Soft Starter
- 1- Generator Docking Station
- 1 - Fused disconnect switch, 3P, for dry-type transformer

Motors and cables for pumps, consisting of:
- 2 - Induction motor, 700 hp, 480 V, 3-phase

FVNR starters and cables, consisting of:
- 2 - 480 V, 1 hp, for Step Screens
- 1 - 480 V, 5 hp, for Wet Well Pump
- 1 - 480 V, 1/2 hp, for Unit Heater

Dry-type Transformer and cables, consisting of:
- 1 - 45 kVA, 2400-208Y/120 Volts, 3-phase, feeding Power Panelboard

Panelboard and cables, consisting of:
- 1 - Power Panel 208/120V, 3-phase 4-wire, 150 amp main breaker, 5 3-p circuits
- 1 - Lighting Panel 208/120V, 3-phase 4-wire, main lugs, 26 circuits

Telemetering cabinet
Checktronic Control Valve
- 2- Checktronic Controlled Valves on each pump discharge

Wireways, junction boxes, conduits, wires
Lighting and receptacles

APPENDIX B

DBE Program and Bidder Requirer

nents

APPENDIX B

City of Wilmington
DBE Program and Bidders Requirements

City of Wilmington DBE Program and Bidders Requirements

DBE PROCUREMENT PROGRAM

Responsibilities of the Equal Opportunity/Contract Compliance Office (EO/CCO) are assumed by the City of Wilmington's Small, Minority Business Enterprise Office (SMBEO) in the Mayor s Office of Economic Development. The City of Wilmington has established laws and procedures to increase accessibility of contracting opportunities for small and minority businesses. The EO/CCO authority derives from Chapter 35, Article IV of the Wilmington City Code. This section of the Code addresses Equal Opportunity in Employment and City Contracts.

Mayor's Office of Economic Development/SMBEO
800 North French Street, 3rd Floor, Wilmington, DE 19801
(302) 576-2121 (Office) • (302) 571-43__ (Fax)
www.wilmingtonde.gov

DISADVANTAGED BUSINESS PROGRAM

In the performance of this contract, the contractor agrees to provide the information as described herein and to make its best efforts to include one or more types of disadvantaged businesses as subcontractors.

A Disadvantaged Business Enterprise means a business that is at least fifty-one percent (51%) owned and controlled by one or more socially disadvantaged individuals who, in fact, control the management and daily business operations of the business.

"Disadvantaged Individuals" are those who have been actual victims of discriminatory practices or individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business who are not so disadvantaged.

In determining the degree of diminished credit and capital opportunities, the City may consider, but shall not be limited to, reviewing the assets and net worth of disadvantaged individuals and disadvantaged businesses.

For purposes of determining the disadvantage in competing for City contracts, there shall be a presumption of economic disadvantage if an individual's net worth, exclusive of up to one hundred and fifty thousand dollars ($150,000.00) of equity in his or her primary residence, is less than five hundred thousand dollars ($500,000.00). The City may, in the administration of its programs, direct its assistance toward those economically disadvantaged individuals who are among the chronically unemployed and may identify demographic subgroups of disadvantaged individuals identified by race or national origin whenever current, verifiable local statistics confirm the existence of unemployment rates among such individuals that are more than fifty (50) percent above the prevailing overall unemployment rate statewide.

All contractors doing business with the City shall show good faith efforts to obtain minority and other disadvantaged subcontracting businesses' participation. Good faith efforts shall be evidenced by listing each disadvantaged business enterprise (DBEs) contacted, showing the name and address of each, the names of contact persons, telephone numbers, sources used to identify DBEs, methods used to make contact, dates firms were contacted, responses, dates responses were received, type of subcontract, reasons for rejection if the firm is not used, and estimated value of each subcontract, through completion of the City's Form DBE-1.

The federal set-aside program requirements for any applicable federally funded contract are fully applicable to the City of Wilmington, such that contractors will be subject to federal penalties of non-compliance if a contract or any subcontract awarded involves the federal set-aside program and the contractor fails to meet its requirements as to that program.

GOAL STATEMENT PROVISION
FOR
DISADVANTAGED BUSINESS PARTICIPATION

In order to expand opportunities and insure fair participation for disadvantaged individuals and businesses in its construction, goods and services and professional service contracts, the City has set purchasing goals for its fiscal year 1991 in each of these three procurement categories. Except to the extent that the Director of the Minority Business Office determines otherwise, such as for utilities, telephone, etc., the City shall endeavor to achieve, and shall require evidence of good faith efforts by bidders and contractors to achieve the goals of contracting with disadvantaged individuals or disadvantaged businesses for the following percentages of the total dollar amount of each contract in these three purchasing categories:

1. A goal of 20% for all construction contracts;

2. A goal of 10% for all professional service contracts; and

3. A goal of 5% for all goods and other contracts.

Notes:

1. If the contractor customarily performs the work required in any subcontracting category by workers regularly employed by the cc ractor in his own organization, the contractor does not have to try to subcontract such work to others solely to comply with the DBE requirements. In such cases, however, the contractor shall clearly note this fact on the applicable DBE form(s), and the burden of proof shall be on the contractor to demonstrate the accuracy thereof upon inquiry by the City.

2. Female-owned businesses do **not**, per se, qualify as DBEs.

3. Questions regarding the DBE program and directory should be directed to the City's EEO/Contractor Compliance Office at (302) 576-2121.

ADDITIONAL GOOD FAITH EFFORT
(CHANGES TO Chapter 35 of the City Code)

Ordinance No. 09-057, effective December 1, 2009, requires the following DBE changes within the "Good Faith Efforts" in bidding regarding disadvantaged business enterprises (DBE's)

Subcontractors Listing

Identify all subcontractors that the bidder plans to utilize as well as listing the amount of money that will be paid to each of the subcontractors as part of the contract

DBE Replacement

Contractors are further required to make good faith efforts to replace any disadvantaged business enterprise ("DBE") that is terminated or has otherwise failed to complete its work on a contract. In such situations, the general contractor shall be required to notify immediately the City's DBE Office and provide reasonable documentation regarding any DBE's inability or unwillingness to perform the contracted work. The City's DBE Office shall require the general contractor to obtain prior approval for the DBE that will be used as a substitute, and the general contractor must provide copies of new or amended subcontracts along with documentation of the good faith efforts made in acquiring the substitute DBE.

DBE Payment

General contractors shall pay all correct invoices for the completed work of any DBE subcontractor within 10 days of receipt by the prime contractor of payment by the City. Noncompliance with this section shall subject the general contractor to penalties as provided in Section 35-135(e).

The ordinance further provides administrative additional penalties for noncompliance in addition to the penalties already provided for in the Ordinance:

1. Suspension of contract;
2. Withholding of contract funds;
3. Termination of contract based on material breach;
4. Refusal to accept a future bid; and
5. Disqualification from eligibility for providing goods or services to the City for a period not to exceed 2 years.

DBE FORMS

Contractors must file with the City, as applicable, the City's DBE Forms as follows:

1. ***DBE-1:** A listing of the subcontractors included in the bid, by which a bidder acknowledges having read the DBE goal provisions in Attachment 1 and states that the bidder will expend a percentage of the dollar amount of the contract for DBE subcontractors, if any.

2. ***DBE-2:** A listing of the subcontractors and other information to provide evidence of good faith efforts to include DBE's in subcontracts. This form must be completed and submitted with the bid, regardless of the level of DBE participation.

3. ***DBE-3:** DBE verification form stating the ownership information regarding any business seeking to qualify as a City-certified DBE, if not listed in DBE Directory.

4. **DBE-4:** A DBE contract participation report requiring that the general contractor submit a report regarding DBE contract participation at the time the contract is entered into, when 50% and when 100% of each DBE subcontractor's portion of the construction project has been completed.

5. ***DBE-5:** A listing of ***ALL subcontractors*** to be utilized on the contract. This form must be completed and submitted with the bid, regardless of the level of DBE participation.

FEDERAL Dollars involved in City Contracts:

A DBE Utilization form(s), including reference to minority business enterprise participation if a federal program is involved, and an indication as to whether a disadvantaged business enterprise (DBE) status is claimed. These EPA (DBE Forms 6100-3 & 6100-4) forms are required by both the SRF and EPA Grant funding programs.

If you need additional information on the DBE Program or assistance completing the DBE Forms, please contact the office by one of the following methods:

Email: smbeo@wilmingtonde.gov

Phone: (302) 576-2121

Address: Small, Disadvantage Business Enterprise Office (SMBEO)
Mayor's Office of Economic Development
Louis L. Redding Building, 3rd Floor
800 North French Street
Wilmington, DE 19801
www.wilmingtonde.gov

*Mandatory to be submitted back with Bid Documents.

EFFORTS TO OBTAIN DBE SUBCONTRACTORS
DBE FORM 1 – DBE FORM 2 EXPLANATION

[NOTE: DBE FORM-2 MUST BE COMPLETED BY ALL BIDDERS REGARDLESS OF THE LEVEL OF PARTICIPATION OF DBEs IN THE BID.]

All contractors doing business with the City are required to show good faith efforts to obtain DBE subcontracting businesses' participation. The burden is on the bidder to evidence such good faith efforts by means of the information required on this page. Failure to complete this form and/or failure to make good faith efforts to obtain DBE participation are grounds for rejecting any bid. Further, bidders are expected to make such good faith efforts to obtain DBE participation in connection with each and every subcontract, if any. The City's goals for DBE participation are listed on Attachment 1 to this form. These goals are not set-aside requirements, but they are the overall goals which the City is endeavoring to achieve through the disadvantaged business program. Each person or firm who or which submits a bid for City contracts is expected to demonstrate good faith efforts by actively and aggressively seeking out DBE participation in the contract to the maximum extent, to meet the City's goals, given all relevant circumstances, and shall complete all forms and follow guidelines as required by the Minority Business Office. The following are examples of the kinds of efforts that may be taken but are not deemed to be exclusive or exhaustive and the City's Minority Business Office may consider other factors and types of efforts that may be relevant:

1. Efforts made to select part of the work to be performed by DBEs in order to increase the likelihood of achieving the City's goal for that type of contract. Selection of parts of the work should at least equal the City's goal for DBE participation in that type of contract.

2. Written notification, at least ten (10) days prior to the opening of a bid, soliciting individual DBEs interested in participation in the contract as a subcontractor and for specific items of work.

3. Efforts made to negotiate with DBEs for specific items of work as detailed below and whether initial contacts to solicit DBE participation were followed up to determine with certainty whether DBEs were interested. A description of information provided to DBEs regarding plans and specifications and estimated quantities for parts of the work to be performed. A statement of why additional agreements with DBEs were not reached. Documentation of each DBE contacted but rejected and the reasons for the rejection.

4. Documentation that DBEs are not available or not interested.

5. Advertisements in general circulation media, trade association publications, and DBE media of interest in utilizing DBEs and specific areas of interest.

    a. Efforts to use effectively the services of organizations that provide assistance in recruitment and placement of DBEs.

    b. Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the bidder might otherwise perform these work items with its own forces.

DBE FORM 3 – DBE FORM 4 – DBE FORM 5 EXPLANATION

DBE FORM 3

DBE-3: DBE verification form stating the ownership information regarding any business seeking to qualify as a City-certified DBE.

- This form must be submitted back with the bid when the contractor is working with a company who they believe to be eligible for the City of Wilmington's DBE Program. The SMBEO Office reserves the right to determine the eligibility and verification of eligibility for the firm listed on DBE Form 3.

- The burden is on the bidder to evidence such good faith efforts by means of providing the contact information for the DBE firm listed on the DBE Form 3. If a firm is determined to be an eligible DBE firm, the total dollar value of the participation by the DBE will be counted toward the contract requirement. The total dollar value of participation by a certified DBE will be based upon the value of work actually performed by the DBE and the actual payments to DBE firms by the Contractor.

- Failure to complete the DBE 3 form and/or failure to make good faith efforts to obtain DBE participation are grounds for rejecting any bid.

DBE FORM 4

DBE-4: **DISADVANTAGED BUSINESS ENTERPRISE – CONTRACT PARTICIPATION REPORT**

- The Contractor shall provide the DBE Office with an accounting of payments made to Disadvantaged Business Enterprise firms, including material suppliers, contractors at all levels (prime, subcontractor, or second tier subcontractor). This accounting shall be furnished to the DBE Office when the contract is entered into by the general contractor and the subcontractor, when 50% and when 100% of each DBE subcontractor's portion of a project has been completed. Failure to submit this information accordingly may result in the following action or other action as deemed by the City:

    1. Withholding of money due in the next partial pay estimate; or

    2. Contractor may be disqualified from further bidding for a period as designated.

DBE FORM 5

DBE-5 **SUBCONTRACTORS' REPORT**

- The Contractor shall provide the DBE Office with a listing of ALL sub contractors to be entered into contract with this bid. DBE subcontractor'(s) are not to be listed on this form but on form DBE #1 (Ord. 09-057).

- Failure to complete the required Subcontractor's form (BE Form 5) will be grounds for the disqualification of such bid as being a responsive bid.

CONTRACT: _____

FORM DBE-1
(Rev. 10/09)

Failure to submit this completed form will be cause for rejection of your proposal

Bidder acknowledges that he has read the D.B.E. goal provisions of the City for this fiscal year and that bidder will expend the dollar amount of the contract for D.B.E. subcontractors through the use of the following disadvantaged business enterprises, subject to the certification by the City, as subcontractors and that Bidder has made good faith efforts* as evidenced by its listing of disadvantaged businesses that were contacted as detailed herein and on the following pages. (Must be completely filled out.)

CITY OF WILMINGTON
DISADVANTAGED BUSINESS ENTERPRISE ("D.B.E.")
SUBCONTRACTOR LISTING

D.B.E. Firm Name IRS Numbers	Mailing Address & Contact Number	Type of Service	Dollar Amount of Contract
Total Dollar Amount to be Expended for Disadvantaged Business Enterprises			
Total Amount of Contract			
Percentage of Contract used for D.B.E.			

Name of Authorized Official of Bidder _____ **Title** _____

Company _____

*Good faith efforts shall be evidenced by listing each and every disadvantaged business enterprise (DBEs) contacted, showing the name and address of each, the names of contact persons, telephone numbers, sources used to identify DBEs, methods used to make contact, dates firms were contacted, responses, dates responses were received, type of subcontract, reasons for rejection, and estimated value of subcontract.

CONTRACT: _____

FORM DBE-2
(Rev. 10/09)

Failure to submit this completed form will be cause for rejection of your proposal

DBE Firm Name/Address	Contact Person(s) Email or Phone Number	Dates Contacted Initially and In Follow Up; Methods Used	Type of Subcontractor, plus Estimated Value	Reason for Rejection (If Firm Not Used) (If Bid "To High" Also Indicate Value)
1.				
			$	
2.				
			$	
3.				
			$	

Were advertisements placed in general circulation media, trade association publications, and DBE media interested in DBE participation? If so, state details of the advertisement. If not, state why not.

_____

_____

What efforts were made to use the services of organizations that provide assistance in recruitment and placement of DBEs?

_____

_____

The following are examples of actions that may **not** be used as justification by the contractor or bidder for failure to meet DBE participation goals:

1. Failure to contract with a DBE solely because the DBE was unable to provide performance and/or payment bonds.
2. Equipment idled by contract with DBE.
3. Rejection of a DBE because of its union or non-union status.

If more DBE firms have been contacted, please list with supplemental form(s) on additional pages.

CONTRACT: _____

FORM DBE-3
(Rev. 10/09)

Failure to submit this completed form will be cause for rejection of your proposal

CITY OF WILMINGTON
DISADVANTAGED BUSINESS REGISTRATION VERIFICATION FORM

1.	NAME:			
2	ADDRESS:			
3.	PHONE:	PRODUCT OR SERVICE LINE:		
4.	TYPE OF FIRM: ☐ Corporation ☐ Partnership ☐ Individual ☐ Other _____			
5.	EMAIL:			
6.	DATE OF ORIGINATION OF FIRM:	EMAIL:		
7.	BUSINESS LICENSES HELD:	City:	State:	Other:
8.	DISADVANTAGED OWNERSHIP OF FIRM:			

	NAME	OWNERSHIP % OF FIRM	DISADVANTAGED BUSINESS
a.			
b.			
c.			
d.			
e.			
f.			

9.	NON-DISADVANTAGED OWNERSHIP OF FIRM:	
	NAME	**OWNERSHIP % OF FIRM**
a.		
b.		
c.		
d.		
e.		
f.		
8.	I hereby certify that the information above is true and complete to the best of my knowledge and belief, and that I have been duly authorized to make this certification on behalf of the firm.	

NAME (printed) _____ **SIGNATURE** _____

DATE _____ **TITLE** _____

FOR OFFICE USE ONLY

DATE RECEIVED: _____
DATE APPROVED: _____
INFORMATION VERIFIED: _____

FORM DBE-4
(Rev. 10/09)

The General Contractor is required to submit this Compliance Report to the Disadvantaged Business Development Officer, City/County Building, 3rd Floor, 800 French Street, Wilmington, Delaware 19801, when the contract is entered into by the general contractor and the subcontractor, when 50% and when 100% of each DBE subcontractor's portion of a construction project has been completed.

DISADVANTAGED BUSINESS ENTERPRISE CONTRACT PARTICIPATION REPORT

1. Contract No. _____ Amount of Contract $_____

2. Name of General Contractor: _____

3. Address: _____

4. E-Mail Address: _____

5. The above-named contractor intends to fulfill its commitment to expend $_____ (____%), of its contract with Disadvantaged Business Enterprises ("DBEs"). The following year-to-date expenditure(s) has been made with a DBE Subcontractor(s):

Name/Address of DBE Subcontractor	Nature of Participation	Dollar Value/ Percent of Participation	Dollar Amount Expended to Date
1.			
2.			
3.			

CONTRACT COMPLETION DATE: _____

General Contractor	Name of Authorized Offic.	Date
DBE Subcontractor	Signature of Authorized Officer	Date
	City of Wilmington Contract Compliance Officer's Name	Date
	City of Wilmington Contract Compliance Officer's Signature	Date

Office Use Only
(Prime)
Payment Received: _____
Amount: _____
Date: _____
Payment Received: _____
Amount: _____
Date: _____

CONTRACT: _____

FORM DBE-5
(Rev. 10/09)

Failure to submit this completed form will be cause for rejection of your proposal

CITY OF WILMINGTON
SUBCONTRACTOR LISTING
(Do not include DBE Firms to be utilized)

Subcontractor Name IRS Numbers	Mailing Address Contact Number or Email	Type of Service	Dollar Amount of Contract
Total Dollar Amount to Non-Disadvantaged Business Enterprises			
Total Amount of Contract			

Bidder acknowledges that he has identified all sub contractors that will be utilized as well as listing the amount of money that will be paid to each of the sub. ntractors as part of the contract (use additional pages if necessary).

_____ _____

Name of Authorized Official of Bidder **Title**

_____ _____

Company **Date**

APPENDIX C

Proposal Form

Appendix C

PROPOSAL FORM

DATE:_____ Proposal 22003 - WDPS

TO: Manager, Division of Procurement
City/County Building – Fifth Floor
800 French Street
Wilmington, DE 19801

FOR: Department of Public Works

Gentlemen:

Having carefully examined the Request for Proposal entitled "Water Distribution System, Electrical Equipment Management and Maintenance Services, Proposal No. 22003 - WDPS", and having become familiarized with their requirements and having visited the sites of the work and noted all conditions affecting the work, the undersigned hereby proposes to furnish the services described in the Request for Proposal for the following prices:

ITEM-1:	Annual Inspection, Maintenance, and Record Keeping Services for a twelve month Period - Lump Sum =	$_____
ITEM-2:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for a two-person electrician crew in response to specific requests by the City $_____ per hr. x 400 hrs. =	$_____
ITEM-3:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for one electrician in response to specific requests by the City $_____ per hr. x 100 hrs. =	$_____
ITEM-4:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for one electrician for conduit work and building wiring in response to specific requests by the City $_____ per hr. x 500 hrs. =	$_____
ITEM-5:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for a two-person electrician crew	

	utilizing one lead electrician and one helper for conduit work and building wiring in response to specific requests by the City $_____ per hr. x 1000 hrs. =	$_____
ITEM-6:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for one technician in response to specific requests by the City for installation and/or maintenance of IT and communication systems $_____ per hr. x 50 hrs. =	$_____
ITEM-7:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for a two person crew utilizing one lead technician and one helper in response to specific requests by the City for installation and/or maintenance of IT and communication systems $_____ per hr. x 50 hrs. =	$_____
ITEM-8:	Emergency Services consisting of on-site man hours for a lead electrician in response to specific requests by the City $_____ per hr. x 25 hrs. =	$_____
ITEM-9:	Emergency Services consisting of on-site man hours for a two person electrician crew in response to specific requests by the City $_____ per hr. x 50 hrs. =	$_____
ITEM-10:	Specialized Services consisting of additional equipment and personnel required for confined space entry $_____ per hr. x 20 hrs.	$_____
ITEM-11:	Specialized Services consisting of shop labor off site $_____ per hr. x 20 hrs.	$_____
ITEM-12:	Equipment, Spare Parts, and Subcontractor Allowance	$100,000
ITEM-13:	Allowance for Preventative Maintenance for Stationery Generator Sets including Batteries, Cables, oil changes, grease, lube by Philips Brothers Electrical Contractors of Glenmoore, PA	$60,000
ITEM-14:	Allowance for Preventative Maintenance for two Air Compressors Located at the Brandywine Membrane Plant by Atlas Copco Corporation of Reading, PA	$10,500
ITEM-15:	Capital Work Allowance for Upgrades at the Porter Filter Plant	$115,000

TOTAL OF ITEMS I through 15 $_____

Work under this Contract shall be completed within 365 days from award of the Contract.

The BIDDER acknowledges receipt of Addendum and or Addenda No. _____, No._____, No._____, prior to submitting a proposal on this Contract.

The BIDDER also agrees that all work required under this Contract is covered by the prices stated hereinbefore and that no other payments will be allowed. The BIDDER further states that his official address for receiving communications is as shown at the beginning of this Proposal.

FIRM: _____

ADDRESS: _____

CITY OF WILMINGTON
BUSINESS LICENSE NO: _____
ATTEST: _____

FEDERAL I.D. NO.: _____ _____

PER: _____
Name (typed or printed)

TITLE: _____

SIGNATURE: _____

TELEPHONE NO: _____

FAX NO: _____

February 15, 2021

Appendix D

GUIDELINES FOR PROPOSAL PREPARATION

Please use the following as a guideline for information to be included in your proposal.

1. Contractors **must** submit at a **minimum** the information provided in these guidelines for themselves and the same information for each of the proposed subcontractors.

1. Business Name and Address

2. Local Address (if Different)

3. Point of Contact (name, base location, and telephone number):

4. Specify type of business and year business established.

5. Specify whether your business is corporation, partnership, of individual.

6. State whether during the past (5) years your firm acquired/merged with another firm, or has the firm changed names. If yes, provide an explanation.

7. Business Phone No. and Fax No.

8. Area of operations and radius of operations from Project Location in miles.

9. Number of employees on staff.

10. References: name of five references (address, phone number and project completion date) for the work applying for. Include the project name and a brief description of the work for each reference.

11. Demonstrate at least two successful projects of similar nature and size for Municipalities of similar or larger size.

12. Provide construction industry experience. At a minimun ovide the number of staff available for each of the following categories and provide years of experience under each category.
    A. low and medium voltage motor control starters (MCC)
    B. individual circuit breakers and/or controllers
    C. synchronous motor starters, variable frequency drives and soft starters
    D. dry-type and oil-filled transformers
    E. panelboards
    F. low-voltage switchboards and circuits
    G. low and medium voltage switchgear

H. primary and secondary substations, including transformers and circuit breakers
I. protective relaying for medium voltage switchgear
J. motors for water distribution pumps and various sump pumps
K. electrical components of emergency generators and auxiliary engines (i.e. automatic transfer switches, batteries, cables, etc.)
L. conduit systems
M. heaters and solenoid valves

13. Provide list of subcontractors, their nature of service (trades) being used and subcontractor's name and address.

14. Complete and submit all DBE forms identified in Appendix B

WILLIER

ELECTRIC MOTOR REPAIR CO., INC.

1 Linden Avenue • P.O. Box 98 • Gibbsboro, NJ 08026
(856) 627-3535 • Fax (856) 627-5271

PROPOSAL FOR

CITY OF WILMINGTON, DELAWARE
DEPARTMENT OF PUBLIC WORKS

WATER DISTRIBUTION SYSTEM
ELECTRICAL EQUIPMENT MANAGEMENT AND MAINTENANCE SERVICES

Proposal No. 22003WDPS Electrical

March 25, 2021

amc/atlantic
ELECTRIC MOTOR CO.
A Division of Willier
(570) 789-4824
(215) 426-9920
Fax: (215) 429-4711
motorman48@juno.com

willier
electric motor repair company, inc.
1 Linden Avenue • P.O. Box 98
Gibbsboro, NJ 08026
(856) 627-3535
Fax: (856) 627-5271
sales@willierelectric.com

penn
electric motor company
A Division of Willier
3080 Emerald Street
Philadelphia, PA 19134
(215) 426-9920
Fax: (215) 426-4711
penn321@comcast.net

SPECIALIZING IN . . .

24 Hour Service Pickup & Delivery
Premium Efficient Electric Motors
IEC Metric Frame Motors
Complete Inventory of HVAC Motors
Precision Dynamic Balancing
Computer Controlled Coil Winding
Vibration Analysis
High Voltage & Large Apparatus Repair
Technical Field Service
Submersible Pump Repair
Generator Repair
Laser Alignment
Elevator Motor Sales/Repair
Core Loss Testing
Epoxy Vacuum Pressure Impregnation
Thermography

DISTRIBUTORS/AUTHORIZED SERVICE CENTER FOR:

- US Electrical Motor Products
- Emerson Power Transmission
- Yaskawa Frequency Drives
- Baldor Electric Motors and Drives
- Benshaw Soft Starters and Drives
- WEG Electric - Full Line
- Leeson Electric Motors
- TECO/Westinghouse - Full Line
- Universal Electric Motors
- AO Smith Electric Motors
- Marathon Electric Motors
- Sew-Eurodrive

SALES SERVICE CONTACTS

KURT SCHNEIDER (609) 922-4460
kurtschneider@verizon.net

LEROY HILL (215) 768-1327
leroymtr1@aol.com

DONALD BAILEY (302) 530-9700
willierelectric@comcast.net

DAVID BRUCH (570) 789-4824
motorman48@juno.com

PURPOSE

The purpose of this document is to establish a Quality Assurance Program for the management of delivery requirements for the City of Wilmington water distribution system electrical equipment services contract.

SCOPE

This document describes procedures for emergency and non-emergency service scheduling, cost reduction initiatives, training programs, and spare parts availability.

SCHEDULING OF SERVICE WORK

Point of contact for this contract is Mr. Don Bailey; current requirements are for a 6-hour response on emergency and 24-hour response for non-emergency service calls. Service requests will be time logged as will the time our service technician arrives on site. Response times of over 5 hours for emergency will be graded as marginal. Response times of 20 hours on non-emergency will also be graded as marginal. Typical response time the previous contract has been under 6 hours for emergency and under 24 hours for non-emergency. All members of the Technical Service Department are equipped with cell phones for quick response to the City's needs. Mr. Bailey, the Point of Contact, is equipped with a Smartphone and 4G internet access, giving him the capability to work from and receive emails from the CMMS System at all times.

COST REDUCTION INITIATIVES/ALLIANCE WITH MANUFACTURERS

Alliances with manufacturers shall be viewed as a partnership, not as a vendor-customer relationship. This partnership will allow Willier Electric to purchase spare parts and materials at the lowest pricing offered by the manufacturer. All efforts will be made to purchase direct from the manufacturers. This direct purchase and partnership relationship ensures the lowest prices possible.

CITY AND EMPLOYEE TRAINING PROGRAMS

Full advantage will be taken of training programs offered by vendors, not just by outside technicians but also by salespersons and inside contact personnel. When possible and when permitted by vendor, openings in these classes will be offered to the City of Wilmington. Charges for these classes, when applicable, will be invoiced at Willier Electric's cost from said vendor.

PARTS AVAILABILITY

A full line of spare parts will be maintained from ABB, Yaskawa and Benshaw starters and VFDs. These parts shall include, but not limited to, fans, SCRs, power control boards, and transformers. A complete inventory of replacement electric motors will be maintained.

PREVENTIVE MAINTENANCE PROGRAM

After many successful PM programs, incorporating Reuter Hanney, it is the intention of Willier Electric to continue the use of their services in future preventive maintenance programs.

I. TECHNICAL PROPOSAL

I.1. Corporate Overview

Willier Electric Motor Repair, Co., Inc. was founded in 1955 in Cherry Hill, New Jersey by Donald P. Willier, Sr. and incorporated in New Jersey in 1965. In 1976, Mr. Willier purchased at 15,000 sq. ft. building and moved the operation from Cherry Hill to its current location of Gibbsboro, New Jersey, utilizing 9,600 sq. ft. of the building. Additional warehousing and offices were added to the building in 1980 and, in 1984, Mr. Willier purchased an additional 12,000 sq. ft. building adjacent to the main building. Willier Electric expands again in 1988 when they purchase Penn Electric Motor Company in Philadelphia. Created for the purpose of servicing, maintaining, and installing electronic drives and starters, the Technical Service Division went into service in 1989. The machining operation is moved to the adjacent building in 1995, thereby tripling the size of the machine area and allowing for the expansion of the winding department. In the same year, Mr. George Davis is hired to head the Technical Service Division, expanding the scope of services to include mechanical field service as well as electronic field service. Additional warehouse space was purchased in 1999 to enable Willier Electric to expand its new motor inventory to over one-half million.

Company information requested is as follows:

Willier Electric Motor Repair Co., Inc
1 Linden Avenue
PO Box 98
Gibbsboro, NJ 08026
(856) 627-3535
(856) 627-5271 *fax*

Federal ID No.: 22-1767640
Delaware State License No.: 1994104741
City of Wilmington License No.: 025916
New Jersey Business Registration No: 0100673

The primary contact for all services specified in this proposal is as follows:

Donald Bailey
Application Engineer/Sales
124 Meriden Drive
Hockessin, DE 19707
(302) 530-9700 *Cell*
(302) 510-3879 *Home*

(302) 898-5860 *Alternate Cell*

Mr. Bailey will coordinate and schedule all field service work. He will be available by smart phone & email 24 hours a day. The contact for shop repair services will be Mr. Jim Willier (856) 627-3535.

The following is a list of specialized equipment owned by Willier Electric:

Penn Electric Shop (PA)

- Overhead Crane – 4-ton
- Bake Oven
- Burn Out Oven
- Lathe – 24"dia.x 8'
- Lathe – 16"dia.x 4'
- Schenck IRD Dynamic Balance Machine (15,000 lbs.)
- Schenck Dynamic Balance Machine (2,000 lbs.)
- Sandblast Area
- Glass beading Booth
- Hydrotech Steam Cleaner/ Pressure Washer
- Baker 12KV Surge Tester

Willier Electric Shop (NJ)

- Two Overhead Crane – 3-ton
- Bake Oven
- (2) Ace Burn Out Oven with Water Suppression and Temperature Printout; one for Armature/Wound Rotor
- Automated Winding Machine
- VPI Tank with Dolph Epoxy Resin
- Standard Dip Tank with Dolph Varnish
- Baker Surge Tester
- Core Loss Tester with Printout
- Biddle Motorized Megger
- Testing capability through 4160 Volt
- L8000 Ford Delivery Truck
- with a 5-ton Knuckle Crane
- SKF Demagnetizing Bearing Heater
- Shenk Balance Machine – 10,000 lbs.
- Lathe – 52"dia. with 12' bed
- Lathe – 22"dia. with 10' bed
- Lathe – 10"dia. with 3' bed
- Milling Machine
- Eutectic Metal Spray Equipment and Supplies
- CSI Portable Balance Machine
- CSI Laser Alignment
- Ludeca Rotalign Ultra Laser Alignment Equipment

Willier Electric is an authorized distributor of spare parts, equipment, and certified repair for the following manufacturers and products:

- ABB Controls
- AO Smith Electric Motors
- Baldor/Reliance Electric Motors and Drives
- Benshaw Soft Starters and Drives
- Century Electric Motors
- Emerson Power Transmission
- Leeson Electric Motors and Drives
- Marathon Electric Motors
- Sew-Eurodrive
- SKF – authorized bearing shop
- TECO/Westinghouse Motors and Controls
- Universal Electric Motors
- US Electric Motors & Parts (Nidec Motor Corporation)
- WEG Motors and Controls
- Yaskawa Frequency Drives

I.2. Approach

Willier Electric provides services to its clients located in southern New Jersey, southeastern Pennsylvania, and the State of Delaware. We are located within a 45 mile radius of the City of Wilmington. Our objective is to assure that all of the City of Wilmington's electrical equipment and systems are tested, clean, operational, and within industry's and manufacturers' tolerances. We will accomplish this through an ongoing inspection and maintenance program that will include infrared imaging, vibration testing of pumps and motors 25 HP and above, visual and mechanical inspections of all City electrical equipment listed to prevent premature and catastrophic failures. This technical service testing and repair will follow NETA Maintenance Testing Specifications (copyright 2007) or latest copy for electrical power distribution equipment and system.

We will utilize both Willier and Penn repair shops to provide 24-hour emergency services to ensure limited downtime of the City's equipment. Unscheduled Technical Service Maintenance and Repairs will be handled in a period of one to seven days (to be determined at the City's request) at the standard service rates. Emergency Technical Service Maintenance and Repairs will be handled within six (6) hours. Items completed during normal working hours (Monday through Friday, 8 a.m. to 4 p.m. with the exception of holidays) will be at the standard service rates. Jobs worked on after normal working hours (i.e., weekends, holidays, and after 4 p.m. weekdays) will be at emergency service rates. Holidays observed are: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas.

The objective of this RFP is and continues to be Willier Electric's objective in all services we provide to our customers. Whether it is the purchase of new equipment, or the training of current employees, we continually strive to improve our quality of service. The organization chart in Appendix A illustrates our hands-on approach by management. By having all key personnel report to an executive of the corporation, we can ensure that the service and quality Willier has provided to its customers over the past 65 years continue long into the future. We feel that in order for the objectives of this or any contract of this size to be met a partnership must exist between the two parties. We have an open-door policy for all our customers and current jobs in our facility are always available for their inspection.

Willier Electric reserves the right to utilize the following sub-contractors:

- Baur Electric – Art Baur – 610-558-4902 – Electrical Services
- KAM Electric – Kenneth Mosley – 302-293-1505 – Electrical Services
- Reuter and Hanney – Matt Mingione – 215-364-5333 – NETA Testing & PM
- Systems Electric – Gerald Reilly – 856-367-7119 – Solar Repair & Maintenance
- JJD Electric – T.J. Cox – 856-340-1271 – Solar Repair & Maintenance
- Advance Solar – Bill Tidaback – 302-731-1000 – Solar Repair & Maintenance
- Mark Flynn Trucking – Mark Flynn – 609-847-5176 – Heavy Hauling
- Telephone Company of America – John Glynn – 610-485-0100 – ITT / Communication Systems
- Phillips Brothers Electrical – John Phillips – 215-662-0111 – Generator Repair
- Fidelity Power Systems – Corp Headquarters – 410-771-9400 – Generator Repair

I.3. Service Alternatives and Exceptions

Willier Electric agrees to follow the contract as specified in the RFP, except:

- Distributorship items will be sold to City of Wilmington at OEM levels; only list prices and discounts will be provided upon request.
- Large projects over $10,000 will be billed according to percentage of project completed.
- Major Construction Projects. Willier Reserves the right to do a lump sum bid.
- Unscheduled On-Call Maintenance and Repair Services will be billed once a week.

I.4. Organization and Staffing

An organizational chart is attached as Appendix A.

The following is a list of the staffing who will be responsible for the work completed for the City of Wilmington. This listing includes their years of experience. RH stands for Reuter Hanney.

CONSTRUCTION INDUSTRY EXPERIENCE:

Category	# Staff	Yrs Exp.
A. Low & medium voltage motor control starters (MCC)	3	100+
B. Individual circuit breakers &/or controllers	3	100+
C. Synchronous motor starters, variable frequency & soft starters	3	100+
D. Dry-type & oil-filled transformers	RH	
E. Panelboards	3	100+
F. Low-voltage switchboards & circuits	3	100+
G. Low & medium voltage switchgear	3	100+
H. Primary & secondary substations, including transformers & circuit breakers	RH	
I. Protective relaying for medium voltage switchgear	RH	
J. Motors for water distribution pumps & various sump pumps	5	100+
K. Electrical components of emergency generators & auxiliary engines (i.e. automatic transfer switches, batteries, cables, etc.)	3	100+
L. Conduit systems	4	100+
M. Heaters & solenoid valves	3	100+

WILLIER ELECTRIC

Winding Department	Name	Experience
Foreman	Mark Balakas	41 years
Head Winder	Paul Sosi	45 years
Armature Winder	Paul Fults	28 years

Mechanical Department (NJ)

Foreman	Thomas Getz	40 years
Mechanic	Robert Stevenson III	10 years
Mechanic	Justin Simpkins	9 years

Mechanical Department (PA)

Manager	Leroy Hill	29 years
Foreman	Glen Steiger	22 years
Mechanic	Philip Negron	5 years

Machine Shop

Foreman	Robert Stevenson	42 years

		Experience
Technical Service		
Foreman	George Davis	55 years
Technician - Mechanical	John Latko	31 years
Technician - Mechanical	Cal Irving	34 years
Technician	Josh Hackett	5 years
Electrical Construction & Repair /IT & Fiber		
Master Electrician	Art Baur	44 years
Master Electrician	Steve Murray	48 years
Master Electrician	Chad Ahlefeld	24 years
Master Electrician	L.J. Thomas	20 years
Journeyman Electrician	Kaala Collins	5 years
Journeyman Electrician	Sterling Lyles	5 years
Journeyman Electrician	Bill Venuti	10 years
Fiber/Data Technician	John Glynn	36 years

I.5. Qualifications and Experience

The following is a list of references for whom Willier Electric and Penn Electric have completed jobs similar to the requests of the City of Wilmington:

- United Water Delaware – Deanna Heintzelman – 302-252-3102
- United Water Sewage – Neil Phillips – 856-635-1496
- United Water Shamong – Dave Fournier – 610-613-8928
- Durand Glass – Tom Swanson – 856-327-4800 X-4322
- Monroe Energy – Ron Corbit – 610-364-8128
- Gloucester County MUA – Robert Gezzi – 856-423-3500 X-109
- Gloucester County MUA – Thomas Sholders – 856-423-3500
- Cumberland County MUA – Rich Brown – 856-455-7120
- Township of Haddon – James Stevenson – 856-854-1825
- Mount Laurel MUA – Frank Deyhle – 856-722-5911
- Gloucester City Water/Sewage – Fred Schindler – 856-456-4486
- Carney's Point Township Sewerage Authority – Blake Maloney – 856-299-5210
- National Gypsum – John Manke – 609-442-0728

II. COST PROPOSAL

Complete proposal form is located in Appendix C.

II.2.1 Inspection and Maintenance Cost is incorporated in proposal form.

II.2.2 Annual Maintenance Recommendations Report is incorporated in proposal form.

II.2.3 Unscheduled On-Call Cost Proposal

	2021/2022
• Electricians (conduit and wire / IT)	$102.50/hour
• Helpers (conduit and wire / IT)	$77.00/ hour
• Technicians	$102.50/ hour
• 2-Person Crews	$205.00/ hour
• Welders	$102.50/ hour
• Riggers	$102.50/ hour
• Machinist	$102.50/ hour
• Shop Laborers	$102.50/ hour
• Rental rates for company owned equipment	
• Vibration Equipment	$150.00/day
• Ludeca Rotalign Ultra Laser Alignment	$150.00/day
• Megometers/Surge Tester	$150.00/day
• Infrared Equipment	$150.00/day
• 65 Foot Boom Truck	$200.00/day
• Aluminum Tri-Pod or Gantry	$150.00/day

II.2.4 Emergency Services Cost Proposal

	2021//2022
• Electrician (conduit and wire / IT)	$143.50/ hour
• Electrician + Helper (conduit and wire / IT)	$251.30/ hour
• Technician	$143.50/ hour
• Technicians 2-Person Crew	$287.00/ hour
• Welders	$143.50/ hour
• Riggers	$143.50/ hour
• Machinist	$143.50/ hour
• Shop Laborers	$143.50/ hour
• Rental rates for company owned equipment	
• Vibration Equipment	$150.00/day
• Ludeca Rotalign Ultra Laser Alignment	$150.00/day
• Megometers/Surge Tester	$150.00/day
• Infrared Equipment	$150.00/day
• 65 Foot Boom Truck	$200.00/day
• Aluminum Tri-Pod or Gantry	$150.00/day

II.2.5 Equipment and Parts Allowance is incorporated in proposal form.

WILLIER

ELECTRIC MOTOR REPAIR CO., INC.

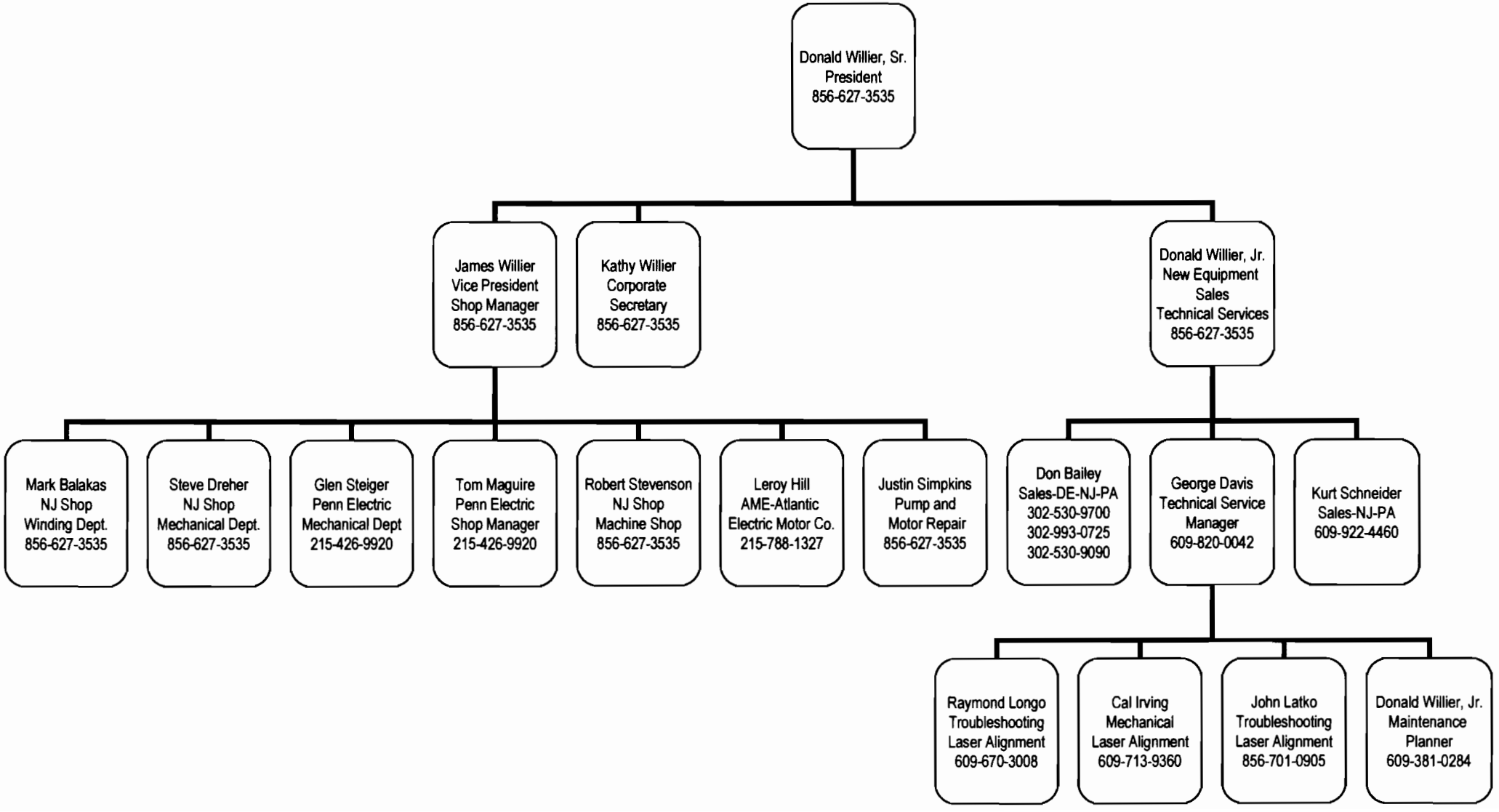
1 Linden Avenue • P.O. Box 98 • Gibbsboro, NJ 08026
(856) 627-3535 • Fax (856) 627-5271

APPENDIX A

ORGANIZATIONAL CHART

Willier Electric Motor Repair Co., Inc.

Organizational Chart



WILLIER

ELECTRIC MOTOR REPAIR CO., INC.

1 Linden Avenue • P.O. Box 98 • Gibbsboro, NJ 08026
(856) 627-3535 • Fax (856) 627-5271

APPENDIX B

CITY OF WILMINGTON

DBE PROGRAM AND BIDDERS

REQUIREMENTS

CONTRACT: 22003WDPS Electrical

FORM DBE-1
(Rev. 10/09)

Failure to submit this completed form will be cause for rejection of your proposal

Bidder acknowledges that he has read the D.B.E. goal provisions of the City for this fiscal year and that bidder will expend the dollar amount of the contract for D.B.E. subcontractors through the use of the following disadvantaged business enterprises, subject to the certification by the City, as subcontractors and that Bidder has made good faith efforts* as evidenced by its listing of disadvantaged businesses that were contacted as detailed herein and on the following pages. (Must be completely filled out.)

CITY OF WILMINGTON
DISADVANTAGED BUSINESS ENTERPRISE ("D.B.E.")
SUBCONTRACTOR LISTING

D.B.E. Firm Name IRS Numbers	Mailing Address & Contact Number	Type of Service	Dollar Amount of Contract
Kam Electric Inc. IRS # 271065070	847 Kiamensi Road. Wilmington. DE 19804 ken@kamelectricinc.com 302.998.5262	Electrical Construction Wire & Conduit	$54,550.00
Total Dollar Amount to be Expended for Disadvantaged Business Enterprises	$54,550 00		
Total Amount of Contract	$778,970.00		
Percentage of Contract used for D.B.E.	7%		

Donald P. Willier — President

Name of Authorized Official of Bidder — **Title**

Willier Electric Motor Repair Company

Company

*Good faith efforts shall be evidenced by listing each and every disadvantaged business enterprise (DBEs) contacted, showing the name and address of each, the names of contact persons, telephone numbers, sources used to identify DBEs, methods used to make contact, dates firms were contacted, responses, dates responses were received, type of subcontract, reasons for rejection, and estimated value of subcontract.

CONTRACT: 22003WDPS Electrical

FORM DBE-2
(Rev. 10/09)

Failure to submit this completed form will be cause for rejection of your proposal

DBE Firm Name/Address	Contact Person(s) Email or Phone Number	Dates Contacted Initially and In Follow Up; Methods Used	Type of Subcontractor, plus Estimated Value	Reason for Rejection (If Firm Not Used) (If Bid "To High" Also Indicate Value)
1.				
			$	
2.				
			$	
3.				
			$	

Were advertisements placed in general circulation media, trade association publications, and DBE media interested in DBE participation? If so, state details of the advertisement. If not, state why not.

No. Willier uses Pre-Approved DBE's from the City of Wilmington DBE Directory, Downloaded March 2021.

Kam Electric worked with Willier on the Wills Pumping Station Upgrade and did a very good job.

What efforts were made to use the services of organizations that provide assistance in recruitment and placement of DBEs?

No. We use the Pre-Approved DBE List for the City of Wilmington Web Site.

Willier choose Kam Electric from past sucessful job. Most other work is completed in house by Willier Electric.

The following are examples of actions that may **not** be used as justification by the contractor or bidder for failure to meet DBE participation goals:

1. Failure to contract with a DBE solely because the DBE was unable to provide performance and/or payment bonds.
2. Equipment idled by contract with DBE.
3. Rejection of a DBE because of its union or non-union status.

If more DBE firms have been contacted, please list with supplemental form(s) on additional pages.

CONTRACT: 22003WDPS Electrical

FORM DBE-3
(Rev. 10/09)

Failure to submit this completed form will be cause for rejection of your proposal

CITY OF WILMINGTON
DISADVANTAGED BUSINESS REGISTRATION VERIFICATION FORM

1.	NAME: N/A			
2	ADDRESS:			
3.	PHONE:	PRODUCT OR SERVICE LINE:		
4.	TYPE OF FIRM: ☐ Corporation ☐ Partnership ☐ Individual ☐ Other _____			
5.	EMAIL:			
6.	DATE OF ORIGINATION OF FIRM:	EMAIL:		
7.	BUSINESS LICENSES HELD:	City:	State:	Other:
8.	DISADVANTAGED OWNERSHIP OF FIRM:			

	NAME	OWNERSHIP % OF FIRM	DISADVANTAGED BUSINESS
a.			
b.			
c.			
d.			
e.			
f.			

9.	NON-DISADVANTAGED OWNERSHIP OF FIRM:	
	NAME	**OWNERSHIP % OF FIRM**
a.		
b.		
c.		
d.		
e.		
f.		
8.	I hereby certify that the information above is true and complete to the best of my knowledge and belief, and that I have been duly authorized to make this certification on behalf of the firm.	

Donald P. Willier
NAME (printed)

SIGNATURE

March 25, 2021
DATE

President
TITLE

FOR OFFICE USE ONLY

DATE RECEIVED: _____
DATE APPROVED: _____
INFORMATION VERIFIED: _____

FORM DBE-4
(Rev. 10/09)

The General Contractor is required to submit this Compliance Report to the Disadvantaged Business Development Officer, City/County Building, 3rd Floor, 800 French Street, Wilmington, Delaware 19801, when the contract is entered into by the general contractor and the subcontractor, when 50% and when 100% of each DBE subcontractor's portion of a construction project has been completed.

DISADVANTAGED BUSINESS ENTERPRISE CONTRACT PARTICIPATION REPORT

1. Contract No. 22003WDPS Electrical Amount of Contract $778,970.00
2. Name of General Contractor: Willier Electric Motor Repair Company
3. Address: 1 Linden Avenue, Gibbsboro, NJ 08026
4. E-Mail Address: willierelectric@comcast.net
5. The above-named contractor intends to fulfill its commitment to expend $$54,550.00 (7 %), of its contract with Disadvantaged Business Enterprises ("DBEs"). The following year-to-date expenditure(s) has been made with a DBE Subcontractor(s):

Name/Address of DBE Subcontractor	Nature of Participation	Dollar Value/ Percent of Participation	Dollar Amount Expended to Date
1. Kam Electric - 847 Kiamensi Rd. Wilmington DE 19804	Electrical Construction Wire & Conduit		
2.			
3.			

CONTRACT COMPLETION DATE: _____

Willier Electric Motor Repair Company	Donald P. Willier	03/25/2021
General Contractor	Name of Authorized Officer	Date
Kam Electric	[signature]	03/25/2021
DBE Subcontractor	Signature of Authorized Officer	Date
	City of Wilmington Contract Compliance Officer's Name	Date
	City of Wilmington Contract Compliance Officer's Signature	Date

Office Use Only
(Prime)
Payment Received: _____
Amount: _____
Date: _____
Payment Received: _____
Amount: _____
Date: _____

CONTRACT: 22003WDPS Electrical

FORM DBE-5
(Rev. 10/09)

Failure to submit this completed form will be cause for rejection of your proposal

CITY OF WILMINGTON
SUBCONTRACTOR LISTING
(Do not include DBE Firms to be utilized)

Subcontractor Name IRS Numbers	Mailing Address Contact Number or Email	Type of Service	Dollar Amount of Contract
Baur Electric	1157 Concord Road, Aston PA 19014 art@baurelectric.com 610.558.4902	Electrical Construction Wire & Conduit	$52,000.00
Reuter Hanney	1371 Brass Mill Road, Belcamp MD 21017 215-364-5333	NETA TESTING	$52,000.00
Systems Electric	457 Lummistown Road, Cedarville, NJ 08311 856-367-7110	Solar Repair & Maintenance	$20,000.00
Philips Bros. Electric	235 Sweet Spring Road, Glenmoore PA 19343 215-662-0111	Generator Repair and Maintenance	$60,000.00
Total Dollar Amount to Non-Disadvantaged Business Enterprises			$184,000.00
Total Amount of Contract			$778,970.00

Bidder acknowledges that he has identified all sub contractors that will be utilized as well as listing the amount of money that will be paid to each of the subcontractors as part of the contract (use additional pages if necessary).

Donald P. Willier — President

Name of Authorized Official of Bidder — **Title**

Willier Electric Motor Repair Company — March 25, 2021

Company — **Date**

WILLIER

ELECTRIC MOTOR REPAIR CO., INC.

1 Linden Avenue • P.O. Box 98 • Gibbsboro, NJ 08026
(856) 627-3535 • Fax (856) 627-5271

APPENDIX C

PROPOSAL FORM

Appendix C

PROPOSAL FORM

DATE: March 25, 2021 Proposal 22003 - WDPS

TO: Manager, Division of Procurement
City/County Building – Fifth Floor
800 French Street
Wilmington, DE 19801

FOR: Department of Public Works

Gentlemen:

Having carefully examined the Request for Proposal entitled "Water Distribution System, Electrical Equipment Management and Maintenance Services, Proposal No. 22003 - WDPS", and having become familiarized with their requirements and having visited the sites of the work and noted all conditions affecting the work, the undersigned hereby proposes to furnish the services described in the Request for Proposal for the following prices:

ITEM-1:	Annual Inspection, Maintenance, and Record Keeping Services for a twelve month Period - Lump Sum =	$133,382.50
ITEM-2:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for a two-person electrician crew in response to specific requests by the City $205.00 per hr. x 400 hrs. =	$82,000.00
ITEM-3:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for one electrician in response to specific requests by the City $102.50 per hr. x 100 hrs. =	$10,250.00
ITEM-4:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for one electrician for conduit work and building wiring in response to specific requests by the City $102.50 per hr. x 500 hrs. =	$51,250.00
ITEM-5:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for a two-person electrician crew	

	utilizing one lead electrician and one helper for conduit work and building wiring in response to specific requests by the City $179.50 per hr. x 1000 hrs. =	$179,500.00
ITEM-6:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for one technician in response to specific requests by the City for installation and/or maintenance of IT and communication systems $102.50 per hr. x 50 hrs. =	$5,125.00
ITEM-7:	Unscheduled On-call Maintenance and Repair Services consisting of on-site man hours for a two person crew utilizing one lead technician and one helper in response to specific requests by the City for installation and/or maintenance of IT and communication systems $179.50 per hr. x 50 hrs. =	$8,975.00
ITEM-8:	Emergency Services consisting of on-site man hours for a lead electrician in response to specific requests by the City $143.50 per hr. x 25 hrs. =	$3,587.50
ITEM-9:	Emergency Services consisting of on-site man hours for a two person electrician crew in response to specific requests by the City $287.00 per hr. x 50 hrs. =	$14,350.00
ITEM-10:	Specialized Services consisting of additional equipment and personnel required for confined space entry $150.00 per hr. x 20 hrs.	$3,000.00
ITEM-11:	Specialized Services consisting of shop labor off site $102.50 per hr. x 20 hrs.	$2,050.00
ITEM-12:	Equipment, Spare Parts, and Subcontractor Allowance	$100,000
ITEM-13:	Allowance for Preventative Maintenance for Stationery Generator Sets including Batteries, Cables, oil changes, grease, lube by Philips Brothers Electrical Contractors of Glenmoore, PA	$60,000
ITEM-14:	Allowance for Preventative Maintenance for two Air Compressors Located at the Brandywine Membrane Plant by Atlas Copco Corporation of Reading, PA	$10,500
ITEM-15:	Capital Work Allowance for Upgrades at the Porter Filter Plant	$115,000

TOTAL OF ITEMS 1 through 15 $778,970.00

Work under this Contract shall be completed within 365 days from award of the Contract.

The BIDDER acknowledges receipt of Addendum and or Addenda No. _____, No._____, No._____, prior to submitting a proposal on this Contract.

The BIDDER also agrees that all work required under this Contract is covered by the prices stated hereinbefore and that no other payments will be allowed. The BIDDER further states that his official address for receiving communications is as shown at the beginning of this Proposal.

FIRM: Willier Electric Motor Repair Company

ADDRESS: 1 Linden Avenue, Gibbsboro, NJ 08026

CITY OF WILMINGTON
BUSINESS LICENSE NO: 025916
ATTEST: Donald L. Bailey

FEDERAL I.D. NO.: 22-1767640

PER: Donald P. Willier
Name (typed or printed)

TITLE: President

SIGNATURE:

TELEPHONE NO: 856.627.3535

FAX NO: 856.627.5271

EMAIL: willierelectric@comcast.net

WILLIER

ELECTRIC MOTOR REPAIR CO., INC.

1 Linden Avenue • P.O. Box 98 • Gibbsboro, NJ 08026
(856) 627-3535 • Fax (856) 627-5271

ANNUAL INSPECTION

MAINTENANCE

RECORD KEEPING SERVICES

WILLIER

ELECTRIC MOTOR REPAIR CO., INC.

1 Linden Avenue • P.O. Box 98 • Gibbsboro, NJ 08026
(856) 627-3535 • Fax (856) 627-5271

PM TO BE PERFORMED BY WILLIER TECHNICAL SERVICE

We are pleased to submit our recommendations for the inspection and testing of the electrical equipment at the City of Wilmington's Water Distribution System. Willier Electric is a full member of the Electric Apparatus Service Association (EASA), and as such, all of our recommendations, test procedures and evaluations conform to their guidelines.

LOCATIONS TO BE SERVICED

- Cool Spring Pumping Station
- Foulk Road Pumping Station
- New Castle Pumping Station
- Kennett Pike Pumping Station
- Hillcrest Pumping Station
- Hoopes Pumping Station
- Alapocas Pumping Station
- Wills Pumping Station
- Brandywine Membrane Complex
- Porter Complex
- Brandywine Pumping Station
- Orange Street Pumping Station
- Rockford Tank
- Greenhill Tank
- Carr Road Tank

EQUIPMENT / SCOPE INCLUDED

- Motors
- Variable Frequency Drives
- Generators
- Lighting and Receptacles
- Low Voltage Cables and Conduits
- Instrumentation & Communication Equipment
- Electrical Testing of Low Voltage Starters, Panel and Breakers
- Infrared Scanning
- Laser Alignment
- Vibration Analysis

Cool Spring Pumping Station

Motors and cables for pumps, consisting of
- 3 – Induction Motor, 300 HP, 480 Volt, 3-Phase
- 1 – Induction Motor, 50 HP, 480 Volt, 3-Phase
- 1 – Induction Motor, 1.5 HP, 480 Volt, 3-Phase
- 1 – Induction Motor, 1 HP, 480 Volt, 3-Phase

Panel board and cables, consisting of
- 1 – Panel "HP", 240/120V, 1-Phase 3-Wire, 350 amp Main Breaker, 13 Circuits
- 1 – Panel "LPA", 240/120V, 1-Phase 3-Wire, 400 amp Main Breaker, 33 Circuits
- 1 – Panel "LPB", 208/120V, 3-Phase 3-Wire, 225 amp Main Breaker, 42 Circuits
- 1 – Panel "DP-1", 480 V, 3-Phase 3-Wire, 200A Fused Disconnect, 70A, 24 Circuits

SCADA Cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles
500 KW Diesel Generator with 1000A Feeder

Foulk Road Pumping Station

Motors and cables for pumps, consisting of
- 2 – Induction motors, 25 HP, 240 V, 3-phase

Duplex pump controller for 2-25 hp motors
Distribution panel board, 50 amp main breaker, 14-Circuits
Circuit breaker, 20 amp, 3-pole for unit heater
Electric unit heater, 5 kW, 240 Volt, 3-phase
Exhaust fan with electric motor, ¼ hp, 120 volt, 1-phase
Sump pump, submersible, 1/3 hp, 120 volt, 1-phase
Telemetering cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles

New Castle Pumping Station

Motors and cables for pumps, consisting of
- 2 – Induction motors, 25 HP, 480 V, 3-phase
- 1 – Induction motor, 1 HP, 480 V, 3-phase with VFD and 30A unfused disconnect
- 1 – Induction motor, 1/3 HP, 120 V, 1-phase
- 2 – Induction motor, 1/6 HP, 120 V, 1-phase

Lighting panel, 240/120V, 1-phase, 3-wire, 100 amp main lugs, 8 circuits
Electric unit heaters, two sets, 7.5 kW, 480V, 3-phase with 30A unfused disconnect
Electric unit heater, 5.0 kW, 480V, 3-phase with 30A unfused disconnect
SCADA Cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles
Diesel Generator-50 kW, 277/480 VAC
Battery charger

Kennett Pike Pumping Station

Motors and cables for pumps, consisting of
- 1 – Induction motor, 50 HP, 480 V, 3-phase
- 2 – Induction motors, 15 HP, 480 V, 3-phase
- 1 – Induction motor, 1 HP, 480 V, 3-phase with VFD and 30A un-fused disconnect
- 1 – Induction motor, 1/2 HP, 480 V, 3-phase
- 1 – Induction motor, 1/6 HP, 120 V, 1-phase
- 1 – Induction motor, 1/4 HP, 120 V, 1-phase
- 1 – Induction motor, 1/3 HP, 120 V, 1-phase
- 3 - 5 kV Disconnect Switches
- 3 - 5kV Lightning Arresters
- 1 - 5kV Oil Circuit Breaker with Overcurrent Relays
- 3 - 37.5 kVA Distibution Transformers
- 1 - 200 Amp Main Breaker
- 1 - TVSS 30 Amp
- 1 - ATS
- 2 - 50 Amp Starters
- 1 - 35 Amp Breaker
- 1 - 20 Circuit Load Center
- 1 - 5 kVA Dry Transformer
- 1 - Low Voltage Panel

Lighting panel, 240/120V, 1-phase, 3-wire, 100 amp main lugs, 19 circuits
Electric unit heater, 20 kW, 480 Volt, 3-phase, with un-fused disconnect
Electric unit heater, 10 kW, 480 Volt, 3-phase, with un-fused disconnect
Electric unit heater, 5 kW, 480 Volt, 3-phase, with 30A un-fused disconnect
SCADA cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles
100 KW Diesel Generator with 175A feeder

Hillcrest Pumping Station

Motors and cables for pumps, consisting of
- 3 – Induction motors, 10 HP, 480 V, 3-phase
- 1 – Induction motor, 1 HP, 480 V, 3-phase with VFD and 30A unfused disconnect
- 1 – Induction motor, 1/2 HP, 120 V, 1-phase
- 1 – Induction motor, 1/6 HP, 120 V, 1-phase
- 1 – Induction motor, 1/3 HP, 120 V, 1-phase

Lighting panel, 240/120V, 1-phase, 3-wire, 100 amp main lugs, 6 circuits
Electric unit heater, 5 kW, 480 Volt, 3-phase, with 30A unfused disconnect
Electric unit heater, 7.5 kW, 480 Volt, 3-phase, with 30A unfused disconnect
Electric unit heater, 7.5 kW, 480 Volt, 3-phase, with 30A unfused disconnect
SCADA cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles
50 KW Diesel Generator with 80A Feeder

Hoopes Pumping Station

Motors and cables for pumps, consisting of
- 5 – Induction motors, 250 HP, 480 V, 3-phase

Variable Frequency Drive
- 1 – VFD, 250 Hp, 480 Volt, 3-phase for Pump No. 1

Power Distribution Center
- 5 – 250 Hp Reduced-voltage autotransformer Starter with CB
- 2 – 3 Hp FVNR Starters with CB
- 3 – Circuit Breaker for lighting transformer, accumulator and stub bus

Panel board and cables, consisting of
- 1 – Panel Board, 208/120V, 3-phase 4-wire, 6 circuits
- 1 – Panel Board, 208/120V, 1-phase 3-wire, 6 circuits

Telemetering Cabinet

Checktronic Control Valves
- 5 – Checktronic Controlled Valves on each pump discharge

Wireways, junction boxes, conduits, wires

Lighting and receptacles

Alapocas Pumping Station

Motors and cables for pumps, consisting of
- 3 – Induction motors, 75 HP, 480 V, 3-phase

Lighting panel, 240/120V, 1-phase, 3-wire, 100 amp main lugs, 6 circuits

Electric unit heater, 15 kW, 480V, 3-phase

1 - 5kV Fused Disconnect Switch
- 3 - 225 kVA Oil Transformers
- 1 - 350 Amp Main Breaker
- 1 - 30 Amp TVSS
- 1 - ATS
- 1 - 5 kVA Dry Transformer
- 1 - 3 kVA Dry Transformers
- 1 - Low Voltage Panel

Telemetering cabinet

Wireways, junction boxes, conduits, wires

Lighting and receptacles

Diesel engine for pump #3

Wills Pumping Station

Motors and cables for pumps, consisting of
- 2 – Induction motor, 700 HP, 2300 V, 3-phase
- 1 – 480V Yaskawa Matrix Type Variable Frequency Drive
- 1 – 480V Benshaw Reduced Voltage Soft Starter

FVNR starters and cables, consisting of
- 2 – 480 Volt, 1 hp, for Step Screens
- 1 – 480 Volt, 5 hp, for Wet Well Pump
- 1 – 480 Volt, ½ hp, for Unit Heater

Panel board and cables, consisting of
- 1 – Power Panel 208/120V, 3-phase 4-wire, 150 amp main breaker, 5 3-pole circuits
- 1 – Lighting Panel 208/120V, 3-phase 4-wire, main lugs, 26 circuits

Telemetering cabinet

Wireways, junction boxes, conduits, wires
Lighting and receptacles

Brandywine Membrane Complex

Motors and cables for pumps
FVNR starters and cables
Membranes
Air Compressors
Panel board and cables
Air Compressors
Motorized valves, including disconnects
Wireways, junction boxes, conduits, wires
Lighting and receptacles

Porter Complex

Motors and cables for pumps, consisting of
1 – Induction motor, 250 HP, 2300 V, 3-phase, for High Service Pump #4
2 – Induction motor, 200 HP, 2300 V, 3-phase, for High Service Pumps #2 & 3
2 – Induction motor, 75 HP, 2300 V, 3-phase, for High Service Pumps #1 & 2
Panel board and cables, consisting of
1 – Panel ACB, 208/120V, 3-phase 4-wire
1 – Panel G, 208/120V, 3-phase 4-wire
Emergency diesel generator, 1000 kW, 3-phase, 60 Hz, 1800 rpm, 0.8 pf, Cummins/Onan
Motorized valves
Wireways, junction boxes, conduits, wires
Lighting and receptacles

Brandywine Pumping Station

Motors and cables for pumps, consisting of
2 – Synchronous motor, 300 HP, 2300 V, 3-phase, for Pumps 3A & 3B
1 - Synchronous motor, 900 HP, Pump #2
1 – Induction motor, 1000 HP, 480 V, 3-phase, for Pump #1
2 – Induction motor, 600 HP, 480 V, 3-phase, for Pumps #4 & #5
Variable frequency drives, 480 volts, 3-phase, consisting of
1 – ABB VFD, 1000 HP, 480 Volts, for Pump #1
1 – Robicon VFD, 500 HP, 480 Volts, for Pump #5
1 – Robicon VFD, 600 HP, 480 Volts, for Pump #4
Power factor correction capacitors, 480 Volts, 3-phase, feeding Pumps 4 & 5 VFDs
Emergency diesel generator, 50 kW, 240V, 3-phase, with ATS and day tank
Panel boards and cables
Telemetering cabinet
Wireways, junction boxes, conduits, wires
Lighting and receptacles

Orange Street Pumping Station (CONFINED SPACE)

Main Circuit Breaker, 100 amp, 3P, 240 Volt
Lighting panel Board
FVNR Starter, size 1
Junction boxes, conduits, wires

Lighting and receptacles

Rockford Tank

Electrical Equipment:
Lighting Panelboard, 240/120V, 1-phase, 3-wire
Heat tracing
Security system
Level instruments and telemetering
Lighting and receptacles

Greenhill Tank

Electrical Equipment:
Lighting Panelboard, 240/120V, 1-phase, 3-wire
Heat tracing
Security system
Level instruments and telemetering
Lighting and receptacles

Carr Road Tank

Electrical Equipment:
Lighting Panelboard, 240/120V, 1-phase, 3-wire
Heat tracing
Security system
Level instruments and telemetering
Lighting and receptacles

REPORTING

At the conclusion of the project, we will submit a detailed inspection and test report. This report will contain all equipment worked on, conditions found, test data, work preformed, corrective actions taken as well as our recommendations for future considerations. Six (6) hardcopies of reports will be provided upon completion of work.

ADDITIONAL SERVICES

Additional repair services can be provided on a time and material basis in accordance with pricing included in this contract.

REUTER HANNEY
THE ELECTRICAL POWER SPECIALISTS

Corporate Office
Northampton Industrial Park
[illegible]
[illegible]
www.[illegible]

Quote #840344

March 23, 2021

Willier Electric
1 Linden Ave.
PO Box 98
Gibbsboro, NJ 08026

Attn: Don Bailey
Re: City of Wilmington / Annual Inspection and Maintenance

Don:

We are pleased to submit our recommendations and price quotation for the inspection and testing of the electrical equipment at the City of Wilmington's Water Distribution System. Reuter and Hanney, Inc. is a full member of the International Electrical Testing Association (NETA), and as such, all of our recommendations, test procedures and evaluations conform to their guidelines.

LOCATIONS TO BE SERVICED

- Cool Spring Pumping Station
- Hoopes Pumping Station
- Alapocas Pumping station
- Wills Pumping Station
- Porter Complex
- Brandywine Pumping Station
- Brandywine Membrane Complex

EQUIPMENT / SCOPE NOT INCLUDED

- Motors
- Variable Frequency Drives
- Generators
- Lighting and Receptacles
- Low Voltage Cables and conduits
- Instrumentation & Communication Equipment
- Electrical Testing of low voltage starters, panels and breakers.
- Infrared Scanning

REUTER HANNEY
THE ELECTRICAL
POWER SPECIALISTS

Corporate Office
Northampton Industrial Park
149 Railroad Drive, Ivyland, PA 18974
Tel: 215-364-5030, Fax: 215-364-5065
www.reuterhanney.com

SCOPE OF WORK

We will service and test all medium and high voltage equipment at the plants listed above in accordance with the following work descriptions:

Service 2.4 and 15 KV Air Circuit Breakers

A. Remove unit.
B. Service all bus connections.
C. Test contact resistance.
D. Perform insulation resistance test.
E. Clean, inspect, lubricate and exercise all mechanical mechanisms.
F. Check all control wiring and connections.
G. Clean unit and housing.
H. Test automatic transfer for proper operation.

Service and calibrate electromechanical relays.

A. Visual and mechanical inspection:
    1. Inspect for physical damage.
    2. Check condition of spiral spring, disc clearance and contacts.
    3. Check mechanically for freedom of movement, proper travel and alignment and tightness of mounting hardware and tap screws.
B. Perform the following tests:
    1. Pick up parameters on operating element.
    2. Timing test.
    3. Pick up and seal in units.
    4. Any special tests as directed by the manufacturer's instruction booklet on the restraint, directional or other features of the relay.

Service 2.4 and 15 KV Fused Disconnect Switches.

A. Service main and arcing contacts.
B. Apply anti-oxidant grease on main contacts.
C. Clean, inspect, lubricate and exercise all mechanical mechanisms.
D. Check contact alignment and opening sequence.
E. Inspect porcelain insulators and arresters.
F. Clean and inspect phase isolation barriers for contamination and corona damage.
G. Perform insulation resistance and contact resistance tests where possible.
H. Service contact areas on the fuses and holders.
I. Tighten all connections.
J. Clean enclosure.

REUTER HANNEY
THE ELECTRICAL
POWER SPECIALISTS

Corporate Office
Northampton Industrial Park
149 Railroad Drive, Ivyland, PA 18974
Tel: 215-364-5300; Fax: 215-364-5305

www.reuterhanney.com

Service 2.4 and 15 KV Oil Circuit Breakers.

A. Clean, inspect, lubricate and exercise all mechanical mechanisms.
B. Clean unit, insulators, cables and housing.
C. Measure contact resistance.
D. Perform insulation resistance testing.
E. Trip breaker via protective devices. Inject current into the CT secondary to verify pick up.
F. Check oil level and test oil quality.

Service all dry transformers.

A. Remove panels.
B. Clean and inspect windings
C. Tighten all connections and mounts.
D. Perform turn to turn ratio test.
E. Perform insulation resistance test on primary and secondary windings (where possible).
F. Perform polarization index test on units 500 KVA and larger.
G. Check fan operation (where applicable).
H. Clean housing.

Service Oil Filled Transformers.

A. Tighten all connections.
B. Check bushings and mounting hardware.
C. Check gauges (where applicable).
D. Check tap changer.
E. Perform turn to turn ratio test.
F. Perform insulation resistance test on primary and secondary windings (where possible).
G. Perform polarization index test on units 500 KVA and larger.
H. Check fan operation (where applicable).
I. Draw an oil fluid sample and perform the following analysis:
    1. Dielectric strength value (ASTM D-877)
    2. Color (ASTM D-1524)
    3. Acidity content (ASTM D-974)
    4. Interfacial tension (ASTM D-971)
    5. Specific gravity (ASTM D-1298)
    6. Visual condition (ASTM D-1524)
    7. Karl Fisher Moisture Content (ASTM D-1533)
    8. Dissolved gas in oil (ASTM D-3612)
    9. PCB content (ASTM D-4059)

REUTER HANNEY
THE ELECTRICAL
POWER SPECIALISTS

Corporate Office
Northampton Industrial Park
148 Railroad Drive Ivyland, PA 18974
Tel: 215-364-5100 Fax: 215-364-5125
www.reuterhanney.com

Service 2.4 and 15 KV cables.

A. Visually inspect for signs of overheating and physical damage.
B. Perform insulation resistance test @ 5000 VDC for 1 minute.
C. Check connection lug and torque to proper value.

Service Capacitor Banks.

A. Visually inspect for leaks, overheating, and physical damage.
B. Electrically measure capacitance.
C. Check fuses and connections.

REPORTING

At the conclusion of each project, we will submit a detailed engineer inspection and test report. This report will contain all equipment worked on, conditions found, test data, work performed, corrective actions taken as well as our recommendations for future considerations.

PRICING

This price is based on performing work on a straight time basis, Monday through Friday.

Additional repair services can be provided on a time and material basis in accordance with our current rate schedule (attached).

The line side of the main incoming switches cannot be fully serviced without a utility outage. In some cases, it may be necessary to pay a service fee to your local utility to guarantee a specific outage time. **Our prices do not include this fee.**

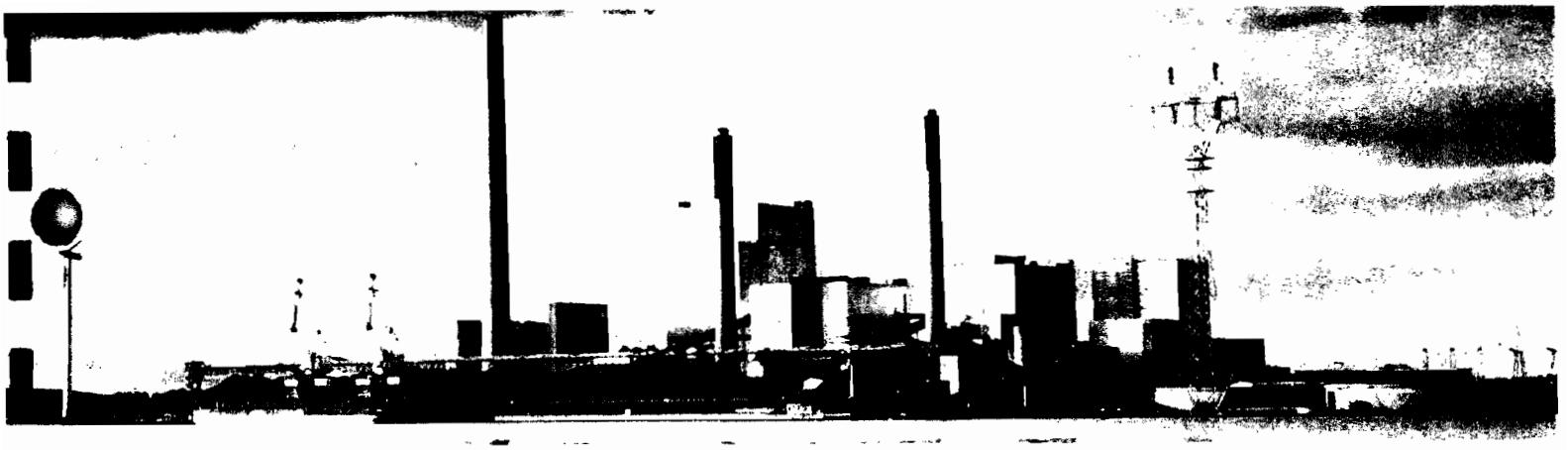
TERMS

For general terms and conditions please go to www.reuterhanney.com terms.

I would like to thank you for allowing me this opportunity to quote on your work. If you have any questions, please feel free to call. I look forward to hearing from you in the near future.

Sincerely,

Matthew J. Mingione
Project Manager



Standard Hourly Rate Schedule - 2021

Classification	ST	OT	DT
Apprentice Technician / Electrician	$93.00	$138.00	$182.00
GAP Apprentice Engineer	$108.00	$159.00	$210.00
Design Drafter	$108.00	$159.00	$210.00
Technician / Industrial Electrician	$158.00	$235.00	$310.00
Senior Technician / Foreman	$178.00	$263.00	$348.00
Engineer / P&C Technician	$191.00	$283.00	$374.00
Senior Engineer / Project Manager	$237.00	$352.00	$463.00
Principal Engineer	$300.00	$445.00	$590.00

Rate "ST" applies to scheduled work performed during normal working hours 7:30AM - 4:00PM Monday - Friday, holidays excluded.

Rate "OT" applies to the first 8 hours worked on Saturdays, and the 9th and 10th hour worked consecutively Monday - Friday

Rate "DT" applies to all hours worked on Sundays and observed Federal Holidays, and all hours after the 10th hour worked consecutively Monday - Friday, and after the 8th hour on Saturday.

An emergency surcharge of 15% will apply to work not previously scheduled at least 3 working days prior to commencement.

Minimum billing is 4 hours for travel and services performed within 1-4 hours. Minimum billing is 8 hours for travel and services performed within 5-8 hours. Travel is charged at applicable rates (ST, OT, DT).

All Technician rates for planned work include labor, tools, insurance, and overhead costs. Job site supervision when required, project management, engineering consultation, and travel time shall be reimbursed as defined above.

T&M invoices will include "OVERHEAD" charges. This charge is based on 11%, 9%, or 7% of the total labor charge and is determined on jobs up to $25,000, $25,000 to $50,000, and over $50,000 respectively. T&M invoices will include off-site labor. Specialty trucks will be billed in addition to the OVERHEAD costs: See Appendix 1 for pricing.

Living expense for overnight stays will be charged at $250/day. Mileage rate to be charged $1.00/mile

Maintenance test equipment, services, and recording instruments shall be billed separately on a per day, week, or monthly basis. See Appendix 1 for pricing. Specialty equipment, if required, will be billed separately.

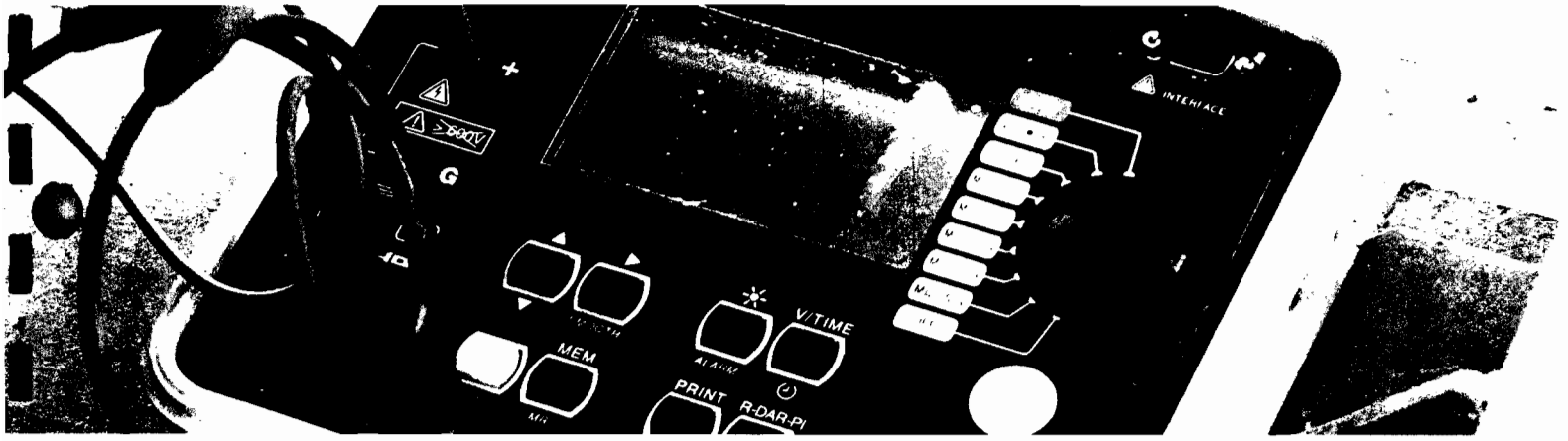
Subcontract and material cost will be provided at cost plus a handling charge of 35%.

REUTER HANNEY
THE ELECTRICAL POWER SPECIALISTS®

149 Railroad Drive
Ivyland, PA 18974
215-364-5333

11620 Crossroads Circle
Middle River, MD 21220
410-344-0300

reuterhanney.com
info@reuterhanney.com



Appendix 1 - Reuter & Hanney Company Owned Equipment Rates

Equipment	Daily	Monthly
AC Hipot 30kV	$120.00	$2,400.00
AC Hipot 60kV	$214.50	$4,290.00
AC Hipot 130kV	$132.00	$2,640.00
Power Factor Doble M4000	$453.00	$9,060.00
TTR Test Set - 2 Phase	$27.00	$540.00
TTR Test Set - 3 Phase	$72.00	$1,440.00
Sweep Frequency Test Set	$190.50	$3,810.00
Winding Resistance	$114.00	$2,280.00
Filter Press	$157.50	$3,150.00
Primary Injection Test Set	$787.50	$15,750.00
Secondary Injection Test Set	$117.00	$2,340.00
Current Supply (MS-2)	$40.50	$810.00
Coil Analyzer Power Supply	$67.50	$1,350.00
Vac Bottle Hipot (Vidar)	$58.50	$1,170.00
Vac Interrupt (MAC)	$342.00	$6,840.00
TimeMotion	$151.50	$3,030.00
CT Test Set Vanguart EZCT	$153.00	$3,060.00
1000A+ Ductor Test Set	$61.50	$1,230.00
VLF Tan Delta	$153.00	$3,060.00
Cable Fault Locator	$76.50	$1,530.00
TDR-1669	$76.50	$1,530.00
Thumper-HV	$174.00	$3,480.00
Ground Test Set AEMC 6474	$114.00	$2,280.00

Appendix 1 Cont. - Reuter & Hanney Company Owned Equipment Rates

Equipment	Daily	Monthly
Relay Test Set Doble 6150	$426.00	$8,520.00
Relay Set (GPS Clock)	$25.50	$510.00
kwh Standard	$115.50	$2,310.00
Power Quality Meter	$54.00	$1,080.00
Battery Test Set	$54.00	$1,080.00
Battery Load DV Power BLU360V	$253.50	$5,070.00
Dewpoint Analyzer DMA35	$46.50	$930.00
Confined Space RKI GX-2009 Gas Analyzer	$12.00	$240.00
SF6 Cart	$787.50	$15,750.00
SF6 Analyzer Dilo 3-027-R002	$3.00	$60.00
Ultrasonic Ultra Probe 1000	$144.00	$2,880.00
IR Camera T420	$141.00	$2,820.00
Phasing Sticks Bierer PD25	$22.50	$450.00
Generator <65kW	$118.50	$2,370.00
Generator >65kW	$583.50	$11,670.00
Boom Lift	$2,757.00	$55,140.00
Van	$94.50	$1,890.00
Box/Stake Truck	$157.50	$3,150.00
Bucket Truck	$591.00	$11,820.00
Winch/Digger Derrick	$511.50	$10,230.00
4/0 Leads-50'	$39.00	$780.00
500mil Leads	$48.00	$960.00

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

Prepared for

Willier Electric
1 Linden Ave., PO Box 98
Gibbsboro, NJ 08026

Submitted by

Matthew J. Mingione
Project Manager

March 24, 2021

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

QUALIFICATIONS

ORGANIZATIONAL OVERVIEW

Reuter and Hanney, Inc. is an electrical testing and engineering firm that has serviced major industrial, commercial and institutional clients since 1978. The company currently has two offices, one located thirty minutes north of Philadelphia and the second located thirty minutes north of Baltimore. The company has been a full member of NETA, The International Electrical Testing Association, since 1998. The company is fully insured, licensed and bonded; copies of our insurance and license numbers are enclosed. We provide a full line of electrical testing services and a list of most of these services is enclosed in our brochure. All testing and maintenance procedures and evaluations conform to NETA, IEEE, ANSI and NFPA recommended practices. The following is provided in order to give a prospective client a short overview of our capabilities. We have included a sampling of employee resumes, equipment calibration certificates and client references. Site visits are not only welcomed, but also encouraged in order to better demonstrate our capabilities.

SALES / PROJECT MANAGEMENT

Our sales department is comprised of five full-time, outside sales project manager representatives. All of our project managers have either a minimum of five-year in-field experience or engineering degrees. They are supported by three full-time client support representatives. Our client support representatives are trained in handling client inquiries, pricing and parts research, technical information research and general administrative duties.

FIELD SERVICE OPERATIONS

Our operations department is comprised of a full time shop manager and a field superintendent. The shop manager is supported by our inside client representatives, field superintendent, and various shop personnel. Our operations group is responsible for coordinating and managing all aspects of our manpower, equipment, truck fleet and inventory assets. In conjunction with the project managers, this group is responsible for internal project coordination that encompasses everything from advanced scheduling to post paper flow management. Our shop manager interfaces with our clients on a daily basis, from coordinating utility outages to emergency service calls. Our field superintendent is responsible for pre-project logistics, initial emergency service call response and post project follow up.

TECHNICAL SERVICES GROUP

Our technical services department is divided into two groups, engineering and field services. These groups are supported by both sales and operations personnel. We typically employ one full time electrical engineer, who is also registered as a professional engineer, and twenty full time field service technicians. We can also draw from a pool of experienced electricians for temporary help on larger projects.

All full time field service technicians, after completing our ninety-day introductory period are automatically enrolled into the NETA technician certification program. Apprentice level personnel are also enrolled in our State of Pennsylvania approved four-year apprenticeship program. Senior field personnel have at least 7 years of power distribution testing, maintenance and installation experience. Senior field personnel have at least a NETA Level III certification.

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

RESOURCES

Reuter and Hanney, Inc. has built a wide range of resources including:

Over a $ 1,200,000.00 equipment inventory including:

- Extensive variety of calibrated testing and monitoring equipment
- Twenty-two (22) vehicle service fleet
- Bucket truck
- 14,000 square feet of office and shop facility
- A large inventory of switchgear and breaker parts, rental circuit breakers and transformers, splices and termination kits (up to 35 Kv), fuses, insulators, etc.
- PowerTools, A-Fault, Captor and Dapper engineering software for short circuit, load flow and coordination studies
- AutoCAD capable
- Network computer system with client test reports archived to 1998
- Extensive technical library which includes:
  - Nationally published standards including NETA, IEEE, ANSI and NFPA
  - Test, maintenance and engineering texts
  - A compilation of current technical articles
  - Manufacturer's instruction, parts and maintenance bulletins for:
    - General Electric
    - Westinghouse
    - ABB
    - ITE
    - Gould
    - Basler
    - FPE
    - Federal Pioneer
    - Allis Chalmers
    - Siemens
    - Challenger
    - S & C
    - Square D
    - G & W
    - Roller Smith

EMERGENCY SERVICE

We maintain 24-hour on-call field personnel to handle all after-hour emergencies. Our after hour answering service is instructed to follow a set procedure when calls are received. Three field service technicians are on call at all times. When an emergency call comes in our field superintendent is dispatched to assess the problem. At that same time our operations group is placed on stand-by in order to assist field personnel with equipment and materials. After our field superintendent assess the problem, he mobilizes our other on-call service personnel and operations staff in order to quickly and efficiently handle your emergency.

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

ENGINEERING SERVICES

Our engineering department is comprised of one electrical engineer who is also a Registered Professional Engineer. We also employ engineer assistants on a temporary basis under the direct supervision of our engineer. This department has at its' disposal the latest state of the art power monitoring recorders to investigate any circuit anomalies, such as harmonics and transient disturbances. The department is supported by a wide selection of engineering software used in coordination, short circuit, load flow, power factor and system capacity analysis studies. Most studies are performed using PowerTools, A-Fault, Captor and Dapper engineering software. A large technical library is also at their disposal. Our engineers are also utilized in the field to maintain their hands-on experience as well as to assist our field personnel. The combination of theoretical and practical knowledge proves invaluable when performing troubleshooting or forensic engineering analysis.

System Design

Design of new and modifications to existing power systems. Design considerations include, safety, reliability, simplicity of operation, voltage stability, maintenance and flexibility. Each application is unique requiring in-depth study and analysis.

Coordination Studies

The purpose is to guard the system against the ever-present threat of damage incurred from transient overcurrent, overvoltage and faults that can result in system failure. We utilize PowerTools software.

Fault Studies

Properly sizing equipment IC rating and overcurrent protection devices is critical to the safe operation of circuit protection devices in the event of a system problem. The magnitude of these fault currents is calculated by engineering software.

Electrical Energy Conservation Studies

Power system analysis for remediation of power factor harmonics and load balance problems.

Load Flow and Connected Load Studies

This is accomplished by performing extensive on-site load profile surveys in combination with computer software in order to determine available system capacity and the effects of system switching.

Arc Flash Hazard Analysis

This is accomplished by performing an extensive on-site survey of your electrical equipment in combination with computer software in order to determine potential arc and shock hazard problems.

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

QUALITY CONTROL

Test Equipment

All test equipment is calibrated at least once a year by an independent contractor or by the equipment manufacturer. This assures the accuracy and reliability of the equipment. Calibrations are traceable to the National Institute of Standards and Technology (NIST). We maintain Certificates of Calibration on file.

Documentation

All field reports are completed on standard forms or on computer disk. Reports are reviewed by our field foreman prior to leaving the site. Problems uncovered during the job are reviewed with the client's representative and the problem equipment is tagged. The reports are then submitted for processing and review. Findings and test results are checked against applicable standards and recommendations are made. Final reviewed reports are submitted to the client and a computer copy is stored at our offices for a minimum of five years.

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

PERSONNEL AND TRAINING

The following is a small sampling of employee resumes from our field services and engineering groups. We hope this will give a prospective client an overview of our personnel's qualifications. We have included a sampling from each of our job classifications.

In general, all of our entry level field service personnel have a trade school or equivalent technical training background. They are enrolled into the **NETA** certification program after completing our ninety-day introductory period. These employees are also enrolled into our four-year apprenticeship program. This program is accredited by the State of Pennsylvania and combines both classroom and in field training. The classroom portion extends over the full 4 year period and consists of 2 nights per week at a State approved technical institute. The "on the job" portion of the training consists of at least 8000 manhours of in-field experience. This portion of the training includes in-house classroom training on testing theory and procedures, test equipment operation, and results evaluation combined with supervised hands-on testing experience. It also includes electrical safety training. Employees are tested throughout this four-year period in order to evaluate their progress.

Our maintenance mechanic level is achieved after successfully completing our four-year apprenticeship program or having at least 8000 hours of equivalent work history. Our mechanics have experience testing, maintaining and repairing electrical switchgear and transformers. They are fully qualified to perform and evaluate the following:

- Primary and secondary injection testing
- Contact resistance testing
- Insulation resistance testing
- Turns ratio testing
- Grounding testing
- Cable testing

They also have attained experience in solid state retrofitting of circuit breakers; repairs on transformers, i.e., bushing and tap changer; switchgear repairs and installation; cable termination and splicing. Most but not all of our mechanics have a level I certification in infrared scanning.

Our senior level mechanics have at least seven years of switchgear and transformer maintenance and testing experience. They have also taken and passed the NETA level III certification test. These employees are fully qualified to perform and evaluate the following:

- Capacitance and dissipation testing (Doble)
- Relay and watthour metering testing
- Circuit breaker time travel testing
- Underground cable and pipe locating

They have extensive experience in troubleshooting and repairing all manner of switchgear and electrical systems problems.

Employees attend training seminars run by switchgear manufacturers, test equipment manufacturers, **NETA** and the Philadelphia Electrical Contractors Association.

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

Matthew J. Mingione
Project Manager

Experience

- Supervision of on-site field crews.
- Advanced scheduling and management of large and small projects.
- Proficient in troubleshooting and repair of electrical distribution systems.
- Extensive knowledge of power distribution equipment and distribution designs.
- Material management and purchasing of equipment and parts.
- Reviews all field reports for technical merit and completeness.
- Project estimating, quoting and billing.
- Coordination and fault analysis of electrical distribution systems.
- Development of electrical single line drawings.
- Analysis of customer's utility bills and remediation through power factor correction and load analysis.
- Instructor of technical courses in: Power Factor Correction; Switchgear Maintenance; Equipment Retrofitting.

Employment History

• Reuter and Hanney, Inc.	1991 to present	Project Manager
• Westinghouse Electric Corporation	1985 - 1991	Sales Engineer / Project Manager

Related Formal Education

- Downingtown High School, 1980
- Drexel Univesity, 1985 (B.S. Commerce & Engineering)

- Industrial and Commercial Power Distribution Course (Electrical Association of Philadelphia)
- Westinghouse Engineering Training Program
- Reuter & Hanney, Inc., Switchgear Maintenance & Testing Training Course
- Sandler Sales and Marketing Training Course

Remarks

- Member of Philadelphia Electrical Association
- Member of Philadelphia Building Owners and Managers Association (BOMA)
- Member of Philadelphia Chamber of Commerce

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

John F. Stoner
Vice President Technical Services

Experience

- Responsible for leading team of engineers and field service technicians during field maintenance testing
- Experienced in performing all aspects of maintenance and acceptance testing on electrical distribution equipment such as transformers, high and low voltage circuit breakers, cable and protective relays
- Proficient in troubleshooting high speed production and field support equipment
- Proficient in troubleshooting and repair of electrical distribution systems
- Conducts training classes on safety procedures
- Conducts technical training classes

Employment History

• Reuter and Hanney, Inc.	1983 to present	Vice President - Technical Services Group

Related Formal Education

- Philco-Ford Technical Institute, 1971
- Industrial and commercial power distribution course (Electrical Association of Philadelphia)
- Programmable logic controllers course (Penn State University)
- AC and DC drive and systems (Emerson Industrial Controls)
- Protective device coordination I & II (Avo Institute)
- DC testing of power apparatus (Biddle)
- Calibration of protective relays (EIL Institute)
- AC power factor and dissipation factor testing (Biddle)
- Systems grounding (Biddle)

Remarks

- **Master Electrician:** Pennsylvania City of Philadelphia license #: 000720
- **Master Electrician:** State of Virginia license #: 2710 044793
- **Master Electrician:** City of Baltimore Maryland license #: M003855
- **Electrical:** New Jersey State license #: EI 07455
- **Electrical:** Delaware State license #: T1-003002
- **Electrical:** Maryland State license #: 8266
- **Journeyman:** City of Harrisburg license #: 1371
- NETA level III certified
- Certified in CPR
- PINS OSHA Safety training
- Certified in confined space procedures
- MSHA training

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

Edward M. Barr, PE
Electrical Engineer

Experience

- Experienced in performing all aspects of maintenance and acceptance testing on electrical distribution equipment such as transformers, high and low voltage circuit breakers, cable and protective relays
- Proficient in troubleshooting and repair of electrical distribution systems
- Responsible for performing engineering services including: coordination, short circuit and power quality
- Conducts training classes on safety procedures
- Conducts technical training classes

Employment History

• Reuter and Hanney, Inc.	1992 to present	Electrical engineer
• United States Navy	1986 to 1991	Lieutenant (Reactor Controls Division)

Related Formal Education

- B.S. Electrical Engineering (power systems), Pennsylvania State University, 1985
- Industrial and commercial power distribution course (Electrical Association of Philadelphia)
- Programmable logic controllers course (Penn State University)
- AC and DC drive and systems (Emerson Industrial Controls)
- Protective device coordination I & II (Avo Institute)
- DC testing of power apparatus (Biddle)
- Calibration of protective relays (EIL Institute) & (Engineers Club of Philadelphia)
- AC power factor and dissipation factor testing (Biddle)
- Fundamentals of Thermography (Inframetric, Inc.)

Remarks

- **Professional Engineer**: State of Pennsylvania - License #: PE-055157E
- **Professional Engineer:** State of Delaware - License #: 11386
- **Professional Engineer**: State of New Jersey - License # 42140
- **Professional Engineer**: State of New York - License #: 78838-1
- **Professional Engineer**: State of Maryland - License #: 27826

- NETA Level III certified
- Infrarmetrics Level I thermographer certified
- Certified in CPR
- Respiratory Certified
- Registered lift truck operator
- PINS OSHA Safety training
- MSHA training
- Certified in confined space procedures

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

Wayne Rugg
Senior Technician

Experience

- Experienced in performing all aspects of maintenance and acceptance testing on electrical distribution equipment such as transformers, high and low voltage circuit breakers, cable and protective relays
- Proficient in troubleshooting and repair of electrical distribution systems
- Responsible for pre-job coordination, on site project management and post project follow up
- Responsible for initial emergency response

Employment History

• Reuter and Hanney, Inc.	2004 to Present	Senior Technician
• Reuter and Hanney, Inc.	1997 to 2004	Field Superintendent
	1990 to 1997	Field Foreman
	1987 to 1990	Lead Mechanic
• Yarway Corporation	1983 to 1987	Process Control Technician
• Fischer Controls	1981 to 1983	Process Control Technician

Related Formal Education

- Williamson Trade School, 1975
- Industrial and commercial power distribution course (Electrical Association of Philadelphia)
- Fundamentals of Thermography (Inframetric, Inc.)
- High voltage cable terminations and splicing (3M, Raychem & Elastimold)
- Calibration of protective relays (Engineers Club of Philadelphia)
- Transformer testing and maintenance (Avo Institute)

Remarks

- Certified in CPR
- Certified in confined space procedures
- Respiratory Certified
- NETA level III certified
- MSHA training
- PINS OSHA Safety training

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

Gregory St. Leger
Operations Manager – Pennsylvania Office

Experience

- Responsible for internal project planning and coordination including: outage coordination between client and utility, present and projected manpower, equipment and other resources requirements
- Responsible for maintenance and calibration of test equipment, material purchasing and inventory control
- Responsible for maintaining OSHA, EPA and DER documentation
- Responsible for post project paperwork, project man-hours and materials records
- Conducts quarterly safety meetings and safety equipment inspections and testing

Employment History

•	Reuter and Hanney, Inc.	2002 to present	Pennsylvania Office Operations Manager
•	Reuter and Hanney, Inc.	1992 to 2002	Shop Manager
•	DCA	1989 to 1992	Facilities Manager
		1987 to 1989	Shop Foreman
		1977 to 1987	Electrician
•	Moffa Electric	1975 to 1977	Apprentice Electrician

Related Formal Education

- Montgomery County Technical School, 1979
- Handling and disposal of hazardous waste, 1990
- OSHA compliance and Right to Know, 1990

Remarks

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

Michael S. Jester
Operations Manager – Maryland Office

Experience

- Experienced in performing all levels of electrical testing and maintenance as both a technician and project supervisor.
- Proficient in troubleshooting and repair of electrical distribution systems
- Member of foreperson training committee-responsible for candidate training
- Instructor of electrical safety, fuse and circuit breaker technology, medium voltage cable splicing and terminating and transformer connections.
- Member of corporate safety committee responsible for review and implementation of new and existing safety policies.

Employment History

• Reuter and Hanney, Inc.	2002 to present	Maryland Office Operations Manager
• Electrical Testing Consultants	1995 to December 2001	
• Hanby Associates	1993 to 1995	
• Multi-test Corporation	1985 to 1993	
• SEPTA	1984 to 1985	
• Reliance Electric	1981 to 1985	

Related Formal Education

- Certified relay maintenance technician (AVO Institute)
- Industrial and Commercial Power Distribution (Edison Electrical Institute)
- Protective relay maintenance (Multi-Amp Institute)
- Medium voltage switchgear (General Electric)
- Insulation testing seminars (Doble Engineering)
- Fundamentals of supervision (Manager Development Institute)
- Supervisory Academy (Associated Builders and Contractors)
- Dynamics of Supervision (Leadership Management, Inc.)

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

Edward N. Kass
Field Foreman

Experience

- Experienced in performing all aspects of maintenance and acceptance testing on electrical distribution equipment such as transformers, high and low voltage circuit breakers, and cable
- Proficient in troubleshooting and repair of electrical distribution systems
- Responsible for on-site project coordination, crew supervision and safety practices
- Extensive experience in circuit breaker refurbishment and retrofitting

Employment History

• Reuter and Hanney, Inc.	1996 to present	Field Foreman
	1995 to 1996	Lead Mechanic
	1992 to 1995	Maintenance Mechanic
	1988 to 1992	Apprentice

Related Formal Education

- Bucks County Technical Trade School, 1997 – Journeyman electrician program
- Industrial and commercial power distribution course (Electrical Association of Philadelphia)
- Electrical theory (Electrical Association of Philadelphia)
- High voltage cable terminations and splicing (3M, Raychem & Elastimold)

Remarks

- 1998 - Completed State of Pennsylvania Maintenance Electrician Journeyman program
- Certified in CPR
- Certified in confined space procedures
- Respiratory Certified
- NETA level II certified
- Registered lift truck operator
- PINS OSHA Safety training
- MSHA training

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

James P. Lauria
Senior Technician

Experience

- Experienced in performing all aspects of maintenance and acceptance testing on electrical distribution equipment such as transformers, high and low voltage circuit breakers, and cable

Employment History

• Reuter and Hanney, Inc.	2004 to present	Senior Technician
	1993 to 2004	Lead Mechanic
• ABB	1991 to 1993	Mechanic

Related Formal Education

- Montgomery County Community College, Engineering Technology, AAS
- High voltage cable terminations and splicing (3M, Raychem & Elastimold)
- Fundamentals of Thermography (Inframetric, Inc.)

Remarks

- Certified in CPR
- Certified in confined space procedures
- Inframetric's Level II thermographer certified
- PINS OSHA Safety training
- MSHA training
- Respiratory Certified
- NETA Level I certified

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

EMPLOYEE RESUME

Paul D. Radomyshelsky
Lead Technician

Experience

- Experienced in performing all aspects of maintenance and acceptance testing on electrical distribution equipment such as transformers, high and low voltage circuit breakers, cable and protective relays
- Proficient in troubleshooting and repair of electrical distribution systems
- Responsible for on-site project coordination, crew supervision and safety practices
- Extensive experience in circuit breaker refurbishment and retrofitting

Employment History

• Reuter and Hanney, Inc.	2006 to Present	Lead Technician
•	1997 to 2006	Electrician
•	1996 to 1997	Electrical Technician

Related Formal Education

- Ivano-Frankovsk Institute of Oil and Gas. 1978 – Electrical Engineer (Equivalent of Bachelor's and Master's degree in electrical engineering in United States.)
- Advance Protective Relaying (Engineer Club of Philadelphia)
- Code Calculations I Class (State of New Jersey Board of Examiners of Electrical Contractors)
- Fundamentals of Thermography (Inframetric, Inc.)

Remarks

- NETA Level III certified
- Certified in CPR
- PINS OSHA Safety training
- MSHA training
- Certified in confined space procedures
- Inframetric's Level I thermographer certified

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

SAFETY

We place a very high priority on safety at Reuter and Hanney, Inc. We stress safety from the first moment of a person's employment. We start each employee meeting with a discussion about safety. All employees are trained in safe work practices both in classroom and on the job.

Safety Equipment

We provide personal safety equipment to each field employee and each of our service trucks is outfitted with additional safety equipment. Each employee is trained in the proper use of each piece of safety equipment. Our safety equipment is tested every six months by an independent firm in order to assure the equipment's quality and reliability. Any equipment that fails this testing is immediately replaced.

CPR

All field personnel are trained in CPR and are re-certified as required. Our CPR training is conducted at a local area hospital in order to insure consistent and correct techniques. Our field personnel are also certified in confined space procedures. Training is conducted by a firm specializing in OSHA safety requirements and training and is conducted at our facility.

Confined Space Entry Certification

A majority of our field personnel have completed a course on confined space entry.

Respiratory Certification

A majority of our field personnel have completed a respiratory certification.

US Department of Labor – Mine Safety and Health Administration Certified

All field personnel have completed the MSHA training for our customers who operate with materials, chemicals, and equipment related to this industry and require this certification before performing any work.

EMR

We currently have an Experience Modification Factor of .771 on our Workman's Compensation Insurance.

Employee Safety Handbook

Each employee is given a copy of our company handbook on the first day of employment. Together we review the handbook at that time.

REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

REFERENCES

Reuter Hanney, Inc. performs electrical work at over 300 facilities per year. Below is a small listing of facilities in the Philadelphia area where we currently provide maintenance, testing, or engineering services. Reuter Hanney, Inc. also performs acceptance testing and engineering studies as a subcontractor for numerous electrical contractors. Additional references can be provided upon request.

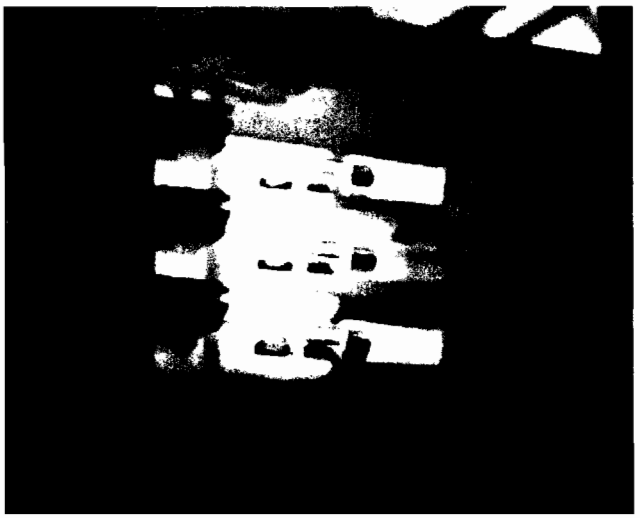
Benjamin Franklin House 834 Chestnut Street Philadelphia, PA Mark Collins, Operations Manager 215-629-9900	Allied Tube & Conduit Corporation 11350 Norcom Road Philadelphia, PA 19154 Scott Ventura, Engineering Manager (215) 676-6464
David Harnitchek and Associates 8345 Cedar Road Elkins Park, PA 19027 David Harnitchek, PE (215) 635-6323	Philadelphia Water Department 1101 Market Street Philadelphia, PA 19107 Raju Vazheparambil, Engineering Manager (215) 685-6297 Luba Anton, Construction Manager (215)685-4096
St. Christophers Hospital 3601 "A" Street Philadelphia, PA 19134-1095 Manny Figueiredo, Maintenance (215) 427-5410	Philips Brothers Electric 235 Sweet Spring Road Glenmoore, PA 19343 John or Glen Philips 610-458-8578
Warminster Hospital 225 Newtown Road Warminster, PA 18974 Chuck McClinton (215) 441-6713	United States Mint 5th & Race Streets Philadelphia, PA Al Croce, Plant Engineering (215) 408-0467

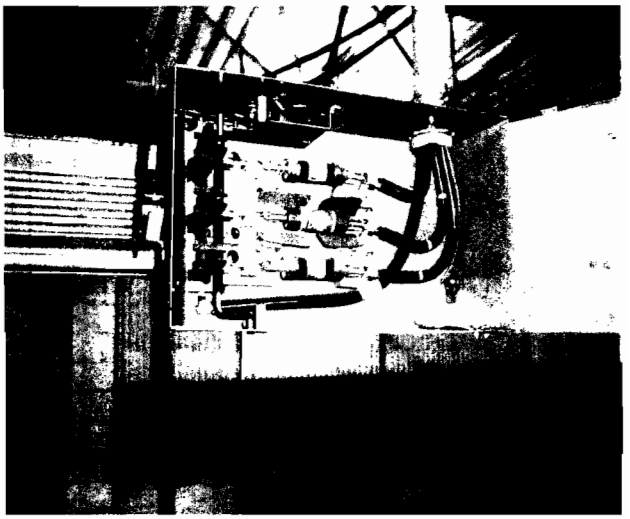
REUTER HANNEY

Northampton Industrial Park • 149 Railroad Drive • Ivyland, PA 18974-1448 • 215-364-5333 • FAX 215-364-5365
1371 Brass Mill Road • Unit E • Belcamp, MD 21017-1239 • 410-297-9566 • Fax 410-297-9984

SAMPLE REPORTS

REUTER HANNEY, INC





Client	SAMPLE						
Report No.	0014 P2768						
Project No.	06-0117-P						
Location	Bus E-5 Column Plant #11						
Equipment	Bus Duct - Fused Disconnect Switch				**Type**	N/A	
Voltage	480	**Current**	100	**Phase/Pole**	3	**KVA**	N/A
Designation	#430						
Panel	N/A						
Circuit	#430 Bus						
Panel Position	N/A	**Scan Date**		@	PM	**Thermographer**	BC

Pole	Circuit	Phase	Temperature		* Priority Code	Current	mV Loss
		B ∅	40	°C	B	22	53
		C ∅	40	°C	B	22	44

* Priority Code	A = Repair Immediately	B = Repair Next Outage

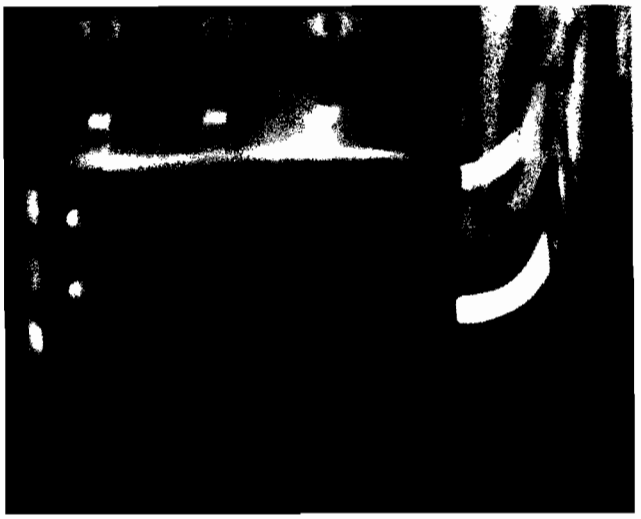
Comments & Recommendations

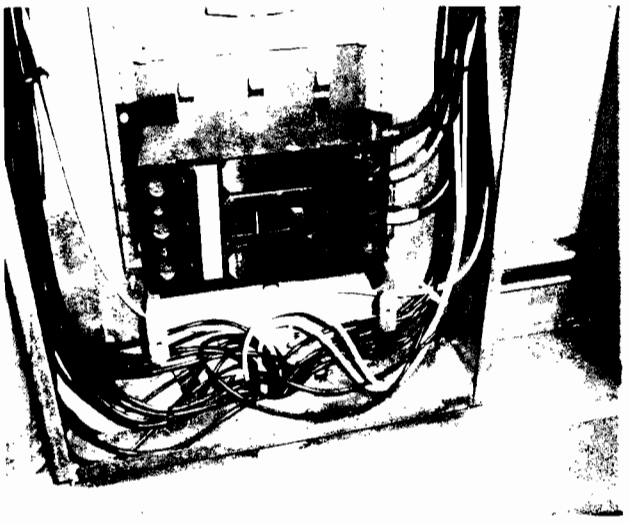
Loose fuse jaws/clips. Remove fuse, clean contact area of fuse and fuse jaws/clips, check tightness and reinstall.

For Client Use Only

Repairs made by:		**Date:**		**Next scan due by:**	

REUTER HANNEY, INC





Client	SAMPLE						
Report No.	0038 – P2461						
Project No.	06-0117-P						
Location	Plant #12						
Equipment	Molded Case Circuit Breaker				**Type**	General Electric	
Voltage	480	**Current**	200	**Phase/Pole**	3	**KVA**	N/A
Designation	Lighting Panel						
Panel	12 LPC						
Circuit	Main						
Panel Position	Main	**Scan Date**		@	PM	**Thermographer**	BC

Pole	Circuit	Phase	Temperature		* Priority Code	Current	mV Loss
		A ∅	42	°C	A	112	70
		B ∅	35	°C	B	80	56

* Priority Code	A = Repair Immediately	B = Repair Next Outage

Comments & Recommendations					
Loose connection. Disassemble, inspect, clean, reassemble and tighten connection to proper torque.					
For Client Use Only					
Repairs made by:		**Date:**		**Next scan due by:**	

Power DB

TRANSFORMER MAINTENANCE TEST

CE
A Qualus Power Services Company

CUSTOMER	Willier Electric	PAGE	1
JOB #	825710	CUSTOMER PO	
OWNER	Willier Electric	ASSET ID	
ADDRESS	POST OFFICE BOX 98; GIBBSBORO NJ 08026		
DATE	12/23/2019 18 °C 60 %	PLANT	PORTER ROAD PUMPING STATION
SUBSTATION	BASEMENT PUMPING ROOM	CIRCUIT_ID	667 Feeder 225 KVA

NAMEPLATE DATA

MANUFACTURER Square D YR MFR NA SERIAL NO 218048-1

IMPEDANCE 5.8 % CAPACITY GALLONS TYPE SHT CLASS AA / /

KVA 225 / / WINDING MATERIAL ALUMINUM TEMPERATURE RISE 115 °C BIL RATING 20/10

PRIMARY KV 24 (●) ( ) ( ) DELTA

SECONDARY KV 4.8 / ( ) (●) ( ) WYE

TAP VOLTAGES	2,520	2,460	2,400	2,340	2,280	INSULATING MEDIUM	Air
TAP POSITION	4 to 5	4 to 6	3 to 6	3 to 7	2 to 7	TANK TYPE	Free Breathing

TAP SETTING 2400 277 VOLTS DRY TYPE ☑ CONSERVATOR ☐

VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT			INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	☑ PASS	☐ FAIL	
VERIFY FANS OPERATE	☐ PASS	☐ FAIL	NA
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	☑ PASS	☐ FAIL	

ELECTRICAL TESTS (OPTIONAL FOR L V TRANSFORMERS OR BELOW 500 kVA)

MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	1	1	1
0.50	**1,960**	**17,800**	**11,200**
1.00	1,990	21,800	13,900
10.00	**2,100**	**30,600**	**23,300**
P I	1.05528	1.40367	1.67626

P I = 10 min/1 min

ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2		X0-X2	
H2-H3		**X0-X3**	
H3-H1		X0-X1	

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
3	**8.664**	**8.658**	**8.659**	**8.659**

WORKING TAP AF 3 to 6 AL 3 to 6

COMMENTS: All test results acceptable

DEFICIENCIES:

TEST EQUIPMENT USED

TESTED BY Alison Battestelli

Family of companies PGTI 3C ELECTRICAL UtilitiesPlus REUTER HANNEY

TRANSFORMER MAINTENANCE TEST

CE
A Quanta Power Services Company

CUSTOMER Willier Electric | PAGE 2
JOB # 825710 | CUSTOMER PO
OWNER Willier Electric | ASSET ID
ADDRESS POST OFFICE BOX 98; GIBBSBORO NJ 08026 | TEST STATUS Pass
DATE 12/11/2019 AMBIENT TEMPERATURE 18.3 °C HUMIDITY 60 % | PLANT PORTER ROAD PUMPING STATION
SUBSTATION BASEMENT PUMPING ROOM | CIRCUIT_ID 723 FEEDER 225 KVA

NAMEPLATE DATA

MANUFACTURER Square D | YR MFR N/A | SERIAL NO 218048-2
IMPEDANCE 5.6 % | CAPACITY N/A GALLONS | TYPE SHT | CLASS AA
KVA 225 | WINDING MATERIAL COPPER | TEMPERATURE RISE 115 °C | BIL RATING 20KV
PRIMARY KV 24 | DELTA
SECONDARY KV 0.48 / 0.277 | WYE
TAP VOLTAGES 2.520 | 2.460 | 2.400 | 2.340 | 2.280 | INSULATING MEDIUM Air
TAP POSITION 4-5 | 4-6 | 3-6 | 3-7 | 2-7 | TANK TYPE Free Breathing
TAP SETTING 3-6 2.400 VOLTS | DRY TYPE ☑ | CONSERVATOR ☐

VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	☑ **PASS** ☐ **FAIL**	
VERIFY FANS OPERATE	☐ PASS ☐ FAIL	
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	☑ **PASS** ☐ **FAIL**	

ELECTRICAL TESTS (OPTIONAL FOR L V TRANSFORMERS OR BELOW 500 kVA)

MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV			
0.50			
1 00			
10.00			
P I			

P I = 10 min/1 min

ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2		X0-X2	
H2-H3		**X0-X3**	
H3-H1		X0-X1	

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
3-6	**8.66**	**8.66**	**8.66**	**8.67**

WORKING TAP AF 3-6 AL 3-6

COMMENTS: All test results acceptable
DEFICIENCIES:

TEST EQUIPMENT USED MIT515 CAL #185628/ DTR 8510 CAL # 196344
TESTED BY KOH

Family of companies PGTI 3C ELECTRICAL Utilities Plus RELTER HANNEY

MOTOR STARTER TEST

A Quanta Power Services Company

CUSTOMER Willier Electric | PAGE 3
JOB # 825710 | CUSTOMER PO
OWNER Willier Electric | ASSET ID
ADDRESS POST OFFICE BOX 98; GIBBSBORO NJ 08026 | TEST STATUS Pass
DATE 12/11/2019 18 °C 60 % | PLANT PORTER ROAD PUMPING STATION
SUBSTATION BASEMENT PUMPING ROOM | CIRCUIT_ID H.S. PUMP # 4

NAMEPLATE DATA

MANUFACTURER Square D | SERIAL NO | TYPE F5
CATALOG NO | STARTER SIZE 360 | FORM
SERIES A | MAXIMUM VOLTAGE 5000 | INT RATING 10 kA @ 2.5 kV
OPERATING VOLTAGE 2400 | CONTROL VOLTAGE 120 | Other
MOTOR CONTROL CENTER SYSTEM VOLTAGE 2400 | STARTER IDENTIFICATION 51034-062-53

OVERCURRENT PROTECTION DEVICES

CONTROL POWER FUSE MFR. FERRAZ-SHAWMUT | TYPE | SIZE 1E
MAIN POWER FUSE MFR GE | TYPE 9F60LJD504 | SIZE 4R
OVERLOAD PROTECTION MFR | TYPE | TESTED ○ YES ◉ NO

INSTRUMENT TRANSFORMER DATA

CONTROL POWER TRANSFORMER MFR | kVA | TYPE | VOLTAGE
CURRENT TRANSFORMER MFR. | RATIO 5 | TYPE | CAT NO

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	✓	Acceptable	
INSULATING MEMBERS	✓	**Acceptable**	**C**
MECHANICAL CONNECTIONS	✓	Acceptable	C
STRUCTURAL MEMBERS	✓	**Acceptable**	**C**
CUBICLE	✓	Acceptable	C
RACKING DEVICES			
SHUTTER			
CONTACT FINGERS			

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	✓	Acceptable	C
ARCING CONTACTS	✓	**Acceptable**	**C**
ARC CHUTES	✓	Acceptable	C
OPERATING MECHANISM	✓	**Acceptable**	**C/L**
CONTACT SEQUENCE	✓	Acceptable	C
GROUND CONNECTIONS	✓	**Acceptable**	
AUXILIARY DEVICES	✓	Acceptable	

INSULATION TEST VOLTAGE ____ kVDC | TEST VOLTAGE MULTIPLIER K1 = ____ | K2 = (K1) (TCF)
EQUIPMENT TEMPERATURE 17 °C | TEMPERATURE CORRECTION FACTOR TO 20°C. TCF 0.886

	RANGE MULTIPLIER	K2	INSULATION RESISTANCE TEST RESULTS - MEGOHMS					
			POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20 C	READING	20 °C	READING	20 °C
POLE TO POLE								
POLE TO FRAME								
LINE TO FRAME								
LOAD TO FRAME								
LINE TO LOAD								

CONTACT RESISTANCE MICRO-OHMS	POLE 1	POLE 2	POLE 3

CONTROL WIRING - MEGOHMS			
READING		20°C	

COMMENTS: NO TESTING WAS DONE CONTACTOR WAS BOLTED IN CONTACTOR WAS CLEANED AND CONNECTION TIGHTENED A PHASE FUSE WAS FOUND WITH INDICATOR UP. FUSE WAS TESTED AND WAS GOOD

DEFICIENCIES:

TEST EQUIPMENT USED ____ | TESTED BY KOH

MOTOR STARTER TEST

CE
A Quanta Power Services Company

CUSTOMER	Willier Electric	PAGE	4
JOB #	825710	CUSTOMER PO	
OWNER	Willier Electric	ASSET ID	
ADDRESS	POST OFFICE BOX 98; GIBBSBORO NJ 08026	TEST STATUS	Pass
DATE	12/11/2019 18 °C 60 %	PLANT	PORTER ROAD PUMPING STATION
SUBSTATION	BASEMENT PUMPING ROOM	CIRCUIT_ID	H.S.PUMP # 2

NAMEPLATE DATA

MANUFACTURER	Square D	SERIAL NO	D	TYPE	F5
CATALOG NO		STARTER SIZE	360	FORM	JPDX33
SERIES	8198	MAXIMUM VOLTAGE	5000	INT RATING	7.3 kA @ kV
OPERATING VOLTAGE	2400	CONTROL VOLTAGE	120	Other	
MOTOR CONTROL CENTER SYSTEM VOLTAGE	2400	STARTER IDENTIFICATION			

OVERCURRENT PROTECTION DEVICES

CONTROL POWER FUSE	MFR	GOULD SHAWMUT	TYPE		SIZE	2E
MAIN POWER FUSE	MFR	BUSS	TYPE	JCL-4R	SIZE	4R
OVERLOAD PROTECTION.	MFR		TYPE		TESTED	○ YES ◉ NO

INSTRUMENT TRANSFORMER DATA

CONTROL POWER TRANSFORMER	MFR		kVA		TYPE		VOLTAGE	
CURRENT TRANSFORMER	MFR		RATIO	5	TYPE		CAT NO	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	✓	Acceptable	
INSULATING MEMBERS	✓	**Acceptable**	
MECHANICAL CONNECTIONS	✓	Acceptable	
STRUCTURAL MEMBERS	✓	**Acceptable**	
CUBICLE	✓	Acceptable	
RACKING DEVICES			
SHUTTER			
CONTACT FINGERS			

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	✓	Acceptable	C
ARCING CONTACTS	✓	**Acceptable**	**C**
ARC CHUTES	✓	Acceptable	C/L
OPERATING MECHANISM	✓	**Acceptable**	**C/L**
CONTACT SEQUENCE	✓	Acceptable	N/A
GROUND CONNECTIONS	✓	**Acceptable**	**C**
AUXILIARY DEVICES	✓	Acceptable	

INSULATION TEST VOLTAGE _____ kVDC
EQUIPMENT TEMPERATURE _____ °C

TEST VOLTAGE MULTIPLIER K1 = _____ K2 = (K1) (TCF)
TEMPERATURE CORRECTION FACTOR TO 20°C. TCF _____

	RANGE MULTIPLIER	K2	INSULATION RESISTANCE TEST RESULTS - MEGOHMS					
			POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20 C
POLE TO POLE								
POLE TO FRAME								
LINE TO FRAME								
LOAD TO FRAME								
LINE TO LOAD								

CONTACT RESISTANCE MICRO-OHMS	POLE 1	POLE 2	POLE 3

CONTROL WIRING - MEGOHMS			
READING		20°C	

COMMENTS: NO TESTING WAS DONE CONTACTOR WAS BOLTED TO BUSS CONTACTOR WAS CLEANED AND ALL CONNECTIONS TIGHTENED
DEFICIENCIES:

TEST EQUIPMENT USED _____

TESTED BY KOH

MOTOR STARTER TEST

PowerDB

CE
A Qualus Power Services Company

CUSTOMER	Willier Electric	PAGE	5
JOB #	825710	CUSTOMER PO	
OWNER	Willier Electric	ASSET ID	
ADDRESS	POST OFFICE BOX 98; GIBBSBORO NJ 08026	TEST STATUS	Pass
DATE	12/23/2019 [illegible] 18 °C [illegible] 60 %	PLANT	PORTER ROAD PUMPING STATION
SUBSTATION	BASEMENT PUMPING ROOM	CIRCUIT_ID	High Service Pump #3

NAMEPLATE DATA

MANUFACTURER	Square D	SERIAL NO.	NA	TYPE	V3540A
CATALOG NO		STARTER SIZE		FORM	JPDX33
SERIES	B	MAXIMUM VOLTAGE	5000	INT RATING	kA @ kV
OPERATING VOLTAGE	2400	CONTROL VOLTAGE	120	Other	FO # 43747231
MOTOR CONTROL CENTER SYSTEM VOLTAGE	2400	STARTER IDENTIFICATION			

OVERCURRENT PROTECTION DEVICES

CONTROL POWER FUSE	MFR Gould Shawmut	TYPE A480T2E	SIZE 2E	
MAIN POWER FUSE	MFR Buss	TYPE JCL-4R	SIZE 130	
OVERLOAD PROTECTION	MFR	TYPE	TESTED	○ YES ● NO

INSTRUMENT TRANSFORMER DATA

CONTROL POWER TRANSFORMER	MFR	kVA	TYPE	VOLTAGE
CURRENT TRANSFORMER	MFR.	RATIO 5	TYPE	CAT NO

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	✓	Acceptable	C
INSULATING MEMBERS	✓	**Acceptable**	**C**
MECHANICAL CONNECTIONS	✓	Acceptable	N/A
STRUCTURAL MEMBERS	✓	**Acceptable**	**N/A**
CUBICLE	✓	Acceptable	N/A
RACKING DEVICES		**N/A**	**N/A**
SHUTTER		N/A	N/A
CONTACT FINGERS		**N/A**	**N/A**

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	✓	Acceptable	C/L
ARCING CONTACTS	✓	**Acceptable**	**C/L**
ARC CHUTES	✓	Acceptable	C
OPERATING MECHANISM	✓	**Acceptable**	**L**
CONTACT SEQUENCE	✓	Acceptable	C/L
GROUND CONNECTIONS	✓	**Acceptable**	**C/L**
AUXILIARY DEVICES	✓	Acceptable	N/A

INSULATION TEST VOLTAGE ______ kVDC TEST VOLTAGE MULTIPLIER K1 = ______ K2 = (K1) (TCF)

EQUIPMENT TEMPERATURE ______ °C TEMPERATURE CORRECTION FACTOR TO 20°C. TCF ______

	RANGE MULTIPLIER	K2	INSULATION RESISTANCE TEST RESULTS - MEGOHMS					
			POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE								
POLE TO FRAME								
LINE TO FRAME								
LOAD TO FRAME								
LINE TO LOAD								

CONTACT RESISTANCE MICRO-OHMS	POLE 1	POLE 2	POLE 3

CONTROL WIRING - MEGOHMS			
READING		20°C	

COMMENTS: NO TESTING WAS DONE CONTACTOR WAS BOLTED TO BUSS CONTACTOR WAS CLEANED AND ALL CONNECTIONS TIGHTENED

DEFICIENCIES:

TEST EQUIPMENT USED: ______ TESTED BY 5257AB

MOTOR STARTER TEST

CE
A Quanta Power Services Company

CUSTOMER	Willier Electric	PAGE	6
JOB #	825710	CUSTOMER PO	
OWNER	Willier Electric	ASSET ID	
ADDRESS	POST OFFICE BOX 98; GIBBSBORO NJ 08026	TEST STATUS	Fail (Needs Attention)
DATE	12/11/2019	18 °C	60 %
PLANT	PORTER ROAD PUMPING STATION		
SUBSTATION	BASEMENT PUMPING ROOM	CIRCUIT_ID	WASH WATER PUMP # 1 75HP

NAMEPLATE DATA

MANUFACTURER	Square D	SERIAL NO		TYPE	V3540A
CATALOG NO		STARTER SIZE	360	FORM	JPDX33
SERIES	D	MAXIMUM VOLTAGE	5000	INT RATING	10 kA @ 2.5 kV
OPERATING VOLTAGE	2400	CONTROL VOLTAGE	120	Other	
MOTOR CONTROL CENTER SYSTEM VOLTAGE	2400	STARTER IDENTIFICATION			

OVERCURRENT PROTECTION DEVICES

CONTROL POWER FUSE	MFR	GOULD SHAWMUT	TYPE		SIZE	2E
MAIN POWER FUSE	MFR	BUSS	TYPE	JCL-2R	SIZE	2R
OVERLOAD PROTECTION	MFR		TYPE		TESTED	○ YES ◉ NO

INSTRUMENT TRANSFORMER DATA

CONTROL POWER TRANSFORMER	MFR		kVA		TYPE		VOLTAGE	
CURRENT TRANSFORMER	MFR.		RATIO	:5	TYPE		CAT NO	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	✓		
INSULATING MEMBERS	✓		
MECHANICAL CONNECTIONS	✓		
STRUCTURAL MEMBERS	✓		
CUBICLE	✓		
RACKING DEVICES			
SHUTTER			
CONTACT FINGERS			

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	✓	Acceptable	C
ARCING CONTACTS	✓	**Acceptable**	**C**
ARC CHUTES	✓	Acceptable	C
OPERATING MECHANISM	✓	**See Deficiencies**	**See Comments**
CONTACT SEQUENCE		Acceptable	
GROUND CONNECTIONS		**Acceptable**	
AUXILIARY DEVICES		Acceptable	

INSULATION TEST VOLTAGE _____ kVDC

EQUIPMENT TEMPERATURE _____ °C

TEST VOLTAGE MULTIPLIER K1 = _____ K2 = (K1) (TCF)

TEMPERATURE CORRECTION FACTOR TO 20°C TCF _____

	RANGE MULTIPLIER	K2	INSULATION RESISTANCE TEST RESULTS - MEGOHMS					
			POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE								
POLE TO FRAME								
LINE TO FRAME								
LOAD TO FRAME								
LINE TO LOAD								

CONTACT RESISTANCE MICRO-OHMS	POLE 1	POLE 2	POLE 3

CONTROL WIRING - MEGOHMS			
READING		20°C	

COMMENTS: NO TESTING WAS DONE CONTACTER WAS BOLTED TO BUSS CONTACTOR WAS CLEANED AND CONNECTIONS TIGHTENED

DEFICIENCIES: HANDLE FOR ISOLATION SWITCH WAS DEFECTIVE ISOLATION SWITCH WILL NOT OPEN OR CLOSE WITH HANDLE SWITCH WAS FOUND CLOSED AND LEFT CLOSED MECH SHOULD BE REPAIRED ASAP

TEST EQUIPMENT USED _____

TESTED BY KOH

MOTOR STARTER TEST

CE
A Quanta Power Services Company

CUSTOMER: Willier Electric
JOB #: 825710
OWNER: Willier Electric
ADDRESS: POST OFFICE BOX 98; GIBBSBORO NJ 08026
DATE: 12/23/2019 18 °C 60 %
SUBSTATION: BASEMENT PUMPING ROOM

PAGE: 7
CUSTOMER PO:
ASSET ID:
TEST STATUS: Pass
PLANT: PORTER ROAD PUMPING STATION
CIRCUIT_ID: Wash Water Pump #2

NAMEPLATE DATA

MANUFACTURER: Square D
CATALOG NO:
SERIES: B
OPERATING VOLTAGE: 2400
MOTOR CONTROL CENTER SYSTEM VOLTAGE: 2400
SERIAL NO:
STARTER SIZE:
MAXIMUM VOLTAGE: 5000
CONTROL VOLTAGE: 120
STARTER IDENTIFICATION:
TYPE: V3540A
FORM: JPDX33
INT RATING: kA @ kV
Other:

OVERCURRENT PROTECTION DEVICES

CONTROL POWER FUSE MFR: Gould Shawmul TYPE: A480T2E SIZE: 2E
MAIN POWER FUSE MFR: Ferraz Shawmut TYPE: 9F60LJD502 SIZE: 2R
OVERLOAD PROTECTION MFR: TYPE: TESTED ○ YES ◉ NO

INSTRUMENT TRANSFORMER DATA

CONTROL POWER TRANSFORMER MFR: kVA: TYPE: VOLTAGE:
CURRENT TRANSFORMER MFR: RATIO: 5 TYPE: CAT NO:

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	✓	Acceptable	C
INSULATING MEMBERS	✓	**Acceptable**	**C**
MECHANICAL CONNECTIONS	✓	Acceptable	C/L
STRUCTURAL MEMBERS	✓	**Acceptable**	**C**
CUBICLE	✓	Acceptable	C
RACKING DEVICES		**N/A**	**N/A**
SHUTTER		N/A	N/A
CONTACT FINGERS		**N/A**	**N/A**

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	✓	Acceptable	C/L
ARCING CONTACTS	✓	**Acceptable**	**C/L**
ARC CHUTES	✓	Acceptable	C
OPERATING MECHANISM	✓	**Acceptable**	**C/L**
CONTACT SEQUENCE	✓	Acceptable	C/L
GROUND CONNECTIONS	✓	**Acceptable**	**N/A**
AUXILIARY DEVICES	✓	Acceptable	N/A

INSULATION TEST VOLTAGE: kVDC
EQUIPMENT TEMPERATURE: °C
TEST VOLTAGE MULTIPLIER K1 =
K2 = (K1) (TCF)
TEMPERATURE CORRECTION FACTOR TO 20°C TCF:

	RANGE MULTIPLIER	K2	INSULATION RESISTANCE TEST RESULTS - MEGOHMS					
			POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE								
POLE TO FRAME								
LINE TO FRAME								
LOAD TO FRAME								
LINE TO LOAD								

CONTACT RESISTANCE MICRO-OHMS	POLE 1	POLE 2	POLE 3

CONTROL WIRING - MEGOHMS			
READING		20 C	

COMMENTS: NO TESTING WAS DONE CONTACTOR WAS BOLTED TO BUSS CONTACTOR WAS CLEANED AND ALL CONNECTIONS TIGHTENED
DEFICIENCIES:

TEST EQUIPMENT USED:
TESTED BY: 5257AB

POWER DB

LOW VOLTAGE POWER CIRCUIT BREAKER TEST AND INSPECTION

CE A Qualus Power Services Company

CUSTOMER: Willier Electric — PAGE: 8
ADDRESS: POST OFFICE BOX 98; GIBBSBORO NJ 08026 — JOB #: 825710
USER: Willier Electric
OWNER REPRESENTATIVE: DON BAILEY — TELEPHONE: 302-530-9700
DATE: 12/19/19 — TEMPERATURE: 54 °F — HUMIDITY: 42 % — EQPT LOCATION: POST OFFICE BOX 98
SUBSTATION: INDOOR — POSITION: MAIN BREAKER

MANUFACTURER:	SQUARE D	SN / SO NO	064111385801	MOUNTING	(●) B I ( ) D O
BREAKER TYPE	PowerPact PG1200	SENSOR TAPS	1200	MANUAL / ELECTRIC	(●) M ( ) E
TRIP UNIT TYPE	MICROLOGIC 6.0A	FUSE CAT NO	NA	CONTROL VOLTAGE CLOSE	NA
FRAME SIZE	1200	OPS AS FOUND / AS LEFT	NA / NA	CONTROL VOLTAGE TRIP	NA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE	DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	☑	Acceptable		ARC CHUTES	☑	Acceptable	
CONTACT FINGERS	☑	**Acceptable**		**AUXILIARY DEVICES**	☑	**Acceptable**	
LOADING AND ARCING CONTACTS	☑	Acceptable		GROUND CONNECTION	☑	Acceptable	
OVERCURRENT DEV. BATTERY	☑	**Acceptable**		**MECHANISM**	☑	**Acceptable**	

SETTINGS AS FOUND

RATING PLUG(R)	**1200**	LONG TIME PU	7	x 1200 A = 840 A		DELAY 12		
		SHORT TIME PU	**6**	= **5040** A	( ) ON ( ) OFF	DELAY **.3**	I²T ( ) IN (●) OUT ( ) N/A	
SENSOR TAP	1200	INST PU	8	= 9600 A	(●) ON ( ) OFF			
		GRD FLT PU	**D (.5)**	= **600** A	(●) ON ( ) OFF	DELAY **.2**	I²T ( ) IN (●) OUT ( ) N/A	

SETTINGS AS LEFT

RATING PLUG(R)	**1200**	LONG TIME PU	7	x 1200 A = 840 A		DELAY 12		
		SHORT TIME PU	**6**	= **5040** A	( ) ON ( ) OFF	DELAY **.3**	I²T ( ) IN (●) OUT ( ) N/A	
SENSOR TAP	1200	INST. PU	8	= 9600 A	( ) ON ( ) OFF			
		GRD FLT PU	**D (.5)**	= **600** A	(●) ON ( ) OFF	DELAY **.2**	I²T ( ) IN (●) OUT ( ) N/A	

PRIMARY INJECTION TEST

FUNCTION	TEST CURRENT	TIME BAND / CURRENT MINIMUM	TIME BAND / CURRENT MAXIMUM	PHASE A AS FOUND	PHASE A AS LEFT	PHASE B AS FOUND	PHASE B AS LEFT	PHASE C AS FOUND	PHASE C AS LEFT
PICK UP									
INSTANTANEOUS	12000					20 987	20 987		
SHORT TIME	**7320**					**.270**	**.270**		
LONG TIME	3640					.036	036		
GROUND FAULT	**1200**					**.152**	**.152**		

CONTACT RESISTANCE - IN MICRO-OHMS — **Test Current @** 10 **Amps**

	A	B	C
BREAKER	36	36	37
FUSE	NA	NA	NA
BREAKER & FUSE	NA	NA	NA

MEGGER TEST RESULTS - MEGGER VOLTAGE @ 1,000 **VDC**

BREAKER CLOSED	Phase A - Ground: Meg-Ohms	Phase B - Ground: Meg-Ohms	Phase C - Ground: Meg-Ohms
	Phase A - Phase B: Meg-Ohms	Phase B - Phase C: Meg-Ohms	Phase C - Phase A: Meg-Ohms
BREAKER OPEN	Phase A Line - Load: Meg-Ohms	Phase B Line - Load: Meg-Ohms	Phase C Line - Load: Meg-Ohms

COMMENTS: Unable to isolate metering/control circuits Could not perform Insulation resistance Contact resistance test results acceptable

DEFICIENCIES:

TESTED BY GD 5537 BS 5284

MEDIUM VOLTAGE DISCONNECT

A Quanta Power Services Company

CUSTOMER Willier Electric | PAGE 9
JOB # 825710 | CUSTOMER PO
OWNER Willier Electric | ASSET ID
ADDRESS POST OFFICE BOX 98: GIBBSBORO NJ 08026 | TEST STATUS Pass
DATE 12/11/2019 3 °C 67 % | PLANT PORTER ROAD PUMPING STATION
SUBSTATION MAIN | CIRCUIT_ID KV FEEDER TO ALAPOCAS SUBSTATION (7

Fuse Data

Manufacturer NA | Type NA | Holder NA | Max Amps NA
Refill Element Type NA | Size NA | Catalogue No NA | TCC No NA | Voltage NA KV

Nameplate Data

Manufacturer SQUARE D | Serial Number NA
Voltage 2 4KV | Type VISI/VAC | Amperes 600 | Interrupting Rating 60 KA
Type of Operating Mechanism electrical | Age 6/1994 | B I.L Rating 60 KV
Momentary Fault Closing Amps 20 KA | Other Nameplate Data

Description	Inspected	Condition	Clean/Lube
Overall Cleanliness	☑	Acceptable	C
Insulating Members	☑	**Acceptable**	**C**
Mechanical Condition	☑	Acceptable	C/L
Structural Members	☑	**Acceptable**	**C**
Cubicle	☑	Acceptable	C
Auxiliary Devices	☑	**Acceptable**	**NA**

Description	Inspected	Condition	Clean/Lube
Main Contacts	☑	Acceptable	C
Heaters	☑	**Acceptable**	**NA**
Bearings	☑	Acceptable	C/L
Contact Sequence	☑	**Acceptable**	**NA**
Ground Connection	☑	Acceptable	NA

Insulation Test Voltage 2 5 kVDC

Insulation Tests

	A Phase (A-B)		B Phase (B-C)		C Phase (C-A)	
	Initial	Final	Initial	Final	Initial	Final
Phase to Phase						
Phase to Ground						
Line to Load						

	A Phase	B Phase	C Phase
Opening Speed			
Closing Speed			

		A Phase	B Phase	C Phase
Contact Resistance Micro-Ohms	Initial			
	Final	**52.00**	**54.00**	**53.00**

COMMENTS: Contact resistance test results acceptable
DEFICIENCIES:

TEST EQUIPMENT USED aemc 6240 CAL 190343
TESTED BY BS 5284

MEDIUM VOLTAGE DISCONNECT

CE
A Quanta Power Services Company

CUSTOMER Willier Electric | PAGE 10
JOB # 825710 | CUSTOMER PO
OWNER Willier Electric | ASSET ID
ADDRESS POST OFFICE BOX 98; GIBBSBORO NJ 08026 | TEST STATUS Pass
DATE 12/11/2019 3 °C 67 % | PLANT PORTER ROAD PUMPING STATION
SUBSTATION MAIN | CIRCUIT_ID FEEDER TO MOTOR CONTROL CENTER 1A

Fuse Data

Manufacturer NA | Type NA | Holder NA | Max Amps NA
Refill Element Type NA | Size NA | Catalogue No NA | TCC No NA | Voltage NA KV

Nameplate Data

Manufacturer SQUARE D | Serial Number NA
Voltage 2 4KV | Type VISI/VAC | Amperes 600 | Interrupting Rating 60 KA
Type of Operating Mechanism electrical | Age 6/1994 | B I L Rating 60 KV
Momentary Fault Closing Amps 20 KA | Other Nameplate Data

Description	Inspected	Condition	Clean/Lube
Overall Cleanliness	☑	Acceptable	C
Insulating Members	☑	**Acceptable**	**C**
Mechanical Condition	☑	Acceptable	C/L
Structural Members	☑	**Acceptable**	**C**
Cubicle	☑	Acceptable	C
Auxiliary Devices	☑	**Acceptable**	**NA**

Description	Inspected	Condition	Clean/Lube
Main Contacts	☑	Acceptable	C
Heaters	☑	**Acceptable**	**NA**
Bearings	☑	Acceptable	C/L
Contact Sequence	☑	**Acceptable**	**NA**
Ground Connection	☑	Acceptable	NA

Insulation Test Voltage 2 5 kVDC

Insulation Tests

	A Phase (A-B)		B Phase (B-C)		C Phase (C-A)	
	Initial	Final	Initial	Final	Initial	Final
Phase to Phase						
Phase to Ground						**5**
Line to Load						

	A Phase	B Phase	C Phase
Opening Speed			
Closing Speed			

		A Phase	B Phase	C Phase
Contact Resistance Micro-Ohms	Initial			
	Final	**55.00**	**62.00**	**53.00**

COMMENTS: Contact resistance test results acceptable
DEFICIENCIES:

TEST EQUIPMENT USED aemc 6240 CAL. 190343
TESTED BY BS 5284

MEDIUM VOLTAGE DISCONNECT

CE
A Quanta Power Services Company

CUSTOMER	Willier Electric	PAGE	11
JOB #	825710	CUSTOMER PO	
OWNER	Willier Electric	ASSET ID	
ADDRESS	POST OFFICE BOX 98; GIBBSBORO NJ 08026	TEST STATUS	Pass
DATE	11/25/2019	5 °C	66 %
PLANT	PORTER ROAD PUMPING STATION		
SUBSTATION	MAIN	CIRCUIT_ID	FEEDER TO MOTOR CONTROL CENTER 1E

Fuse Data

Manufacturer	NA	Type	NA	Holder	NA	Max Amps	NA		
Refill Element Type	NA	Size	NA	Catalogue No	NA	TCC No	NA	Voltage	NA KV

Nameplate Data

Manufacturer	SQUARE D				Serial Number	17-70029	
Voltage	2 4KV	Type	VISI/VAC	Amperes	600	Interrupting Rating	KA
Type of Operating Mechanism				Age		B I.L Rating	60 KV
Momentary Fault Closing Amps	KA			Other Nameplate Data			

Description	Inspected	Condition	Clean/Lube
Overall Cleanliness	☑		
Insulating Members	☑	**Acceptable**	**C**
Mechanical Condition	☑	Acceptable	C/L
Structural Members	☑	**Acceptable**	**C**
Cubicle	☑	Acceptable	C
Auxiliary Devices	☑	**Acceptable**	**NA**

Description	Inspected	Condition	Clean/Lube
Main Contacts	☑	Acceptable	
Heaters	☐	**N/A**	**NA**
Bearings	☑	Acceptable	C/L
Contact Sequence	☑	**Acceptable**	**NA**
Ground Connection	☑	Acceptable	NA

Insulation Test Voltage 2 5 kVDC

Insulation Tests

	A Phase (A-B)		B Phase (B-C)		C Phase (C-A)	
	Initial	Final	Initial	Final	Initial	Final
Phase to Phase		5000000		5000000		5000000
Phase to Ground		**5000000**		**5000000**		**5000000**
Line to Load		5000000		5000000		5000000

	A Phase	B Phase	C Phase
Opening Speed			
Closing Speed			

		A Phase	B Phase	C Phase
Contact Resistance Micro-Ohms	Initial	60	63	58
	Final			

COMMENTS: TEST RESULTS ACCEPTABLE

DEFICIENCIES:

TEST EQUIPMENT USED 101920953 122260SKDV

TESTED BY DD 5531

MEDIUM VOLTAGE DISCONNECT

A Quanta Power Services Company

CUSTOMER	Willier Electric	PAGE	12
JOB #	825710	CUSTOMER PO	
OWNER	Willier Electric	ASSET ID	
ADDRESS	POST OFFICE BOX 98; GIBBSBORO NJ 08026	TEST STATUS	Pass
DATE	11/25/2019 5 °C 66 %	PLANT	PORTER ROAD PUMPING STATION
SUBSTATION	MAIN	CIRCUIT_ID	2.4 KV MAIN SWITCH (667)

Fuse Data

Manufacturer	NA	Type	NA	Holder	NA	Max Amps	NA		
Refill Element Type	NA	Size	NA	Catalogue No	NA	TCC No	NA	Voltage	NA KV

Nameplate Data

Manufacturer	SQUARE D			Serial Number	17-70028
Voltage	2 4KV	Type	VISI/VAC	Amperes	600
Interrupting Rating		KA			
Type of Operating Mechanism		Age	6/94	B I L Rating	60 KV
Momentary Fault Closing Amps		KA	Other Nameplate Data		

Description	Inspected	Condition	Clean/Lube
Overall Cleanliness	☑	Acceptable	C
Insulating Members	☑	**Acceptable**	**C**
Mechanical Condition	☑	Acceptable	C/L
Structural Members	☑	**Acceptable**	**C**
Cubicle	☑	Acceptable	C
Auxiliary Devices	☑	**Acceptable**	**NA**

Description	Inspected	Condition	Clean/Lube
Main Contacts	☑	Acceptable	C
Heaters	☐	**N/A**	**NA**
Bearings	☑	Acceptable	C/L
Contact Sequence	☑	**Acceptable**	**NA**
Ground Connection	☑	Acceptable	NA

Insulation Test Voltage 2.5 kVDC

Insulation Tests

	A Phase (A-B)		B Phase (B-C)		C Phase (C-A)	
	Initial	Final	Initial	Final	Initial	Final
Phase to Phase		146700		184400		155300
Phase to Ground		**126100**		**196600**		**201000**
Line to Load		344000		425000		421000

	A Phase	B Phase	C Phase
Opening Speed			
Closing Speed			

		A Phase	B Phase	C Phase
Contact Resistance Micro-Ohms	Initial	61	60	60
	Final			

COMMENTS: Test results acceptable

DEFICIENCIES:

TEST EQUIPMENT USED 101920953 122260SKDV

TESTED BY DD 5531

Family of companies PGTI 3C ELECTRICAL Utilities Plus RELTER HANNEY

MEDIUM VOLTAGE DISCONNECT

CE
A Quanta Power Services Company

CUSTOMER	Willier Electric	PAGE	13
JOB #	825710	CUSTOMER PO	
OWNER	Willier Electric	ASSET ID	
ADDRESS	POST OFFICE BOX 98; GIBBSBORO NJ 08026	TEST STATUS	Pass
DATE	12/11/2019 3 °C 66 %	PLANT	PORTER ROAD PUMPING STATION
SUBSTATION	MAIN	CIRCUIT_ID	2.4 KV MAINS SWITCH (723)

Fuse Data

Manufacturer	NA	Type	NA	Holder	NA	Max Amps	NA		
Refill Element Type	NA	Size	NA	Catalogue No.	NA	TCC No	NA	Voltage	NA KV

Nameplate Data

Manufacturer	SQUARE D			Serial Number	17-70023		
Voltage	2.4KV	Type	VISI/VAC	Amperes	600	Interrupting Rating	60 KA
Type of Operating Mechanism	AUTO/MANUAL			Age	6/1994	B I L Rating	60 KV
Momentary Fault Closing Amps	40 KA			Other Nameplate Data			

Description	Inspected	Condition	Clean/Lube
Overall Cleanliness	☑	Acceptable	C
Insulating Members	☑	**Acceptable**	**C**
Mechanical Condition	☑	Acceptable	C/L
Structural Members	☑	**Acceptable**	**C**
Cubicle	☑	Acceptable	C
Auxiliary Devices	☑	**Acceptable**	**NA**

Description	Inspected	Condition	Clean/Lube
Main Contacts	☑	Acceptable	C
Heaters	☑	**Acceptable**	**NA**
Bearings	☑	Acceptable	C/L
Contact Sequence	☑	**Acceptable**	**NA**
Ground Connection	☑	Acceptable	NA

Insulation Test Voltage 2.5 kVDC

Insulation Tests

	A Phase (A-B)		B Phase (B-C)		C Phase (C-A)	
	Initial	Final	Initial	Final	Initial	Final
Phase to Phase	405.000		401.000		419.000	
Phase to Ground	**296,000**		**205,000**		**188,600**	
Line to Load	212.000		236.000		190.000	

	A Phase	B Phase	C Phase
Opening Speed	N/A	N/A	N/A
Closing Speed			

		A Phase	B Phase	C Phase
Contact Resistance Micro-Ohms	Initial	106	89	93
	Final	**106.00**	**89.00**	**93.00**

COMMENTS: All test results were within NETA specifications

DEFICIENCIES:

TEST EQUIPMENT USED 192471, DLRO factory calibrated

TESTED BY 5545

Family of companies PGTI 3C ELECTRICAL UtilitiesPlus RELTER HANNEY

DEPARTMENT OF PUBLIC WORKS
WATER DIVISION

MEMORANDUM

TO: Phil Ceresini
Purchasing Agent
Division of Procurement and Records

FROM: Samuel A. Baise Jr.
Contracts & Maintenance Supervisor
Public Works Department

DATE: April 8, 2021

Re: Contract 22003WDPS - Water Distribution System Electrical Equipment Management and Maintenance Services Recommendation of Award

On March 25, 2021 we received the following bid for the referenced project. The single bid is as follows:

Bidder	Grand Total
Wilier Electric Motor Repair Co., Inc.	$778,970

The Department of Public Works recommends that award be made to ***Willier Electric Motor Repair Co., Inc. in the amount of $778,970.***

APPROVED:

For Kelly Williams
COMMISSIONER OF PUBLIC WORKS

cc: Vince Carroccia, Deputy Commissioner
Chris Oh, Water Services Director
Joe Dellose, Public Works
Manuel Parada, Parada Construction Services, LLC

CERTIFICATE OF AWARD OF CONTRACT

I hereby certify that Contract No. **22003WDPS** is on this **8th** of **April 2021** awarded to **Willier Electric Motor Repair Co., Inc** in the amount of **$778,970.00** as per proposal dated ~~**2/15/21**~~ and that this award is made in compliance with Wilm. Code (Charter), Section 8-200, to wit: 3-25-21 mw

1. Plans and specifications for the work, supplies, or materials were filed with the Department of Finance, Division of Procurement and Records for public inspection on **3/2/21.**

2. The advertisement calling for sealed proposals on this contract was published in the **News Journal** on **3/2/21 & 3/9/21** stated that proposals would be received by **4:30 p.m.** on **3/25/21**

3. All proposals were received by the close of business in the office of the Department of Finance, Division of Procurement and Records, by **4:30 p.m.** on **3/25/2021.**

4. Proposals were submitted by the following, evaluated by the Department of Public Works, and ranked as follows:

Contractor	Address	Date of Proposal	Amount
Willier Electric Motor Repair Co., Inc	New Jersey	3/25/21	$778,970.00

5. City License Number _____

6. Upon recommendation of **Department of Public Works** and after due consideration, I determined that the contractor to whom this award is made was the lowest responsible bidder. In support of this determination, I have received the following written recommendations, which are on file at my office:

Author	***Employment Position***	***Date***
Kelly Williams	**Commissioner of Public Works**	**4/8/21**

_____
Department of Finance, Division of Procurement

willier
ELECTRIC MOTOR REPAIR CO., INC.

sales@willierelectric.com
www.willierelectric.com

1 Linden Avenue, PO Box 98 • Gibbsboro, New Jersey 08026
(856) 627-3535 • Fax (856) 627-527

CERTIFIED COPY OF RESOLUTION and DESIGNATION OF AGENTS

This is to certify that a meeting of the Board of Directors of WILLIER ELECTRIC MOTOR CO., INC., a Corporation under the laws of the State of New Jersey, with a principle place of business located at #1 Linden Avenue, Gibbsboro, New Jersey 08026, which meeting was duly called and properly held on June 15, 2007 at the principle office of said Corporation, pursuant to its by-laws at which meeting a quorum was present, the following resolution was unanimously adopted, to wit:

RESOLVED, that any officer of this Corporation listed below or other person connected with the Corporation also listed below, each with the power to act alone, are hereby authorized and empowered on behalf of this Corporation to transact any and business with City of Wilmington **which this Corporation could in any transact, and he is further authorized to execute, acknowledge and/or deliver on behalf of this Corporation and in its name, any and all notes, drafts, assignments, repurchase agreements, bills of sale, chattel mortgage security agreements, trusts, receipt security agreements, installment sale and security agreements, inventory loan and security agreements or any instruments required under the provisions of the Uniform Commercial Code, conditional sales contracts, and any and all other instruments which he/she may deem necessary or convenient in the transaction of business of the undersigned, this authority to continue to the contrary is received by the** City of Wilmington

THE DESIGNATED PERSONS ARE:

Donald Bailey	Sales
NAME	**TITLE or POSITION**
Donald P. Willier Jr	Mgr
NAME	**TITLE or POSITION**
NAME	**TITLE or POSITION**

The above person/s are designated as agents of said Corporation and are hereby authorized and empowered, each of them with power to act alone or to transact on behalf of this Corporation any and all business with the City of Wilmington
Which this Corporation could in any way transact.

IN WITNESS WHEREOF, the undersigned Secretary of said Corporation has set his/her hand and affixed its Corporate Seal this 12 **day of** April **20** 21.

(Seal)

Kathleen Willier

Kathleen Willier
Sect./Treas.
Willier Electric Motor Repair Co.,Inc.

STATE OF NEW JERSEY
DEPARTMENT OF THE TREASURY
DIVISION OF REVENUE AND ENTERPRISE SERVICES
SHORT FORM STANDING

WILLIER ELECTRIC MOTOR REPAIR, INC.
9330152000

I, the Treasurer of the State of New Jersey, do hereby certify that the above-named New Jersey Domestic For-Profit Corporation was registered by this office on March 10, 1965.

As of the date of this certificate, said business continues as an active business in good standing in the State of New Jersey, and its Annual Reports are current.

I further certify that the registered agent and office are:

DONALD P WILLIER
ONE LINDEN AVENUE P O BOX 98
GIBBSBORO, N.J., NJ 08026-0000

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal at Trenton, this 11th day of May, 2021

Elizabeth Maher Muoio
State Treasurer

Certificate Number : 6118915301

Verify this certificate online at

https://www1.state.nj.us/TYTR_StandingCert/JSP/Verify_Cert.jsp

WILLELE-02 JANTONELLI

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 5/17/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Scirocco Group – Haddon Heights
515 Grove Street
Suite 1C
Haddon Heights, NJ 08035

CONTACT NAME: House - SFG Scirocco Group
PHONE (A/C, No, Ext): (201) 727-0070 FAX (A/C, No): (201) 727-0080
E-MAIL ADDRESS: mlux@SCIROCCOGROUP.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Selective Way Insurance Company	26301
INSURER B: Harleysville Insurance of New Jersey	42900
INSURER C: The Continental Insurance Company Of New Jersey	42625
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Willier Electric Motor Repair
Co., Inc.
PO Box 98, Linden Avenue
Gibbsboro, NJ 08026

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY							
	CLAIMS-MADE X OCCUR			S 2388561	6/11/2020	6/11/2021	EACH OCCURRENCE	1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	500,000
							MED EXP (Any one person)	15,000
							PERSONAL & ADV INJURY	1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	2,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	2,000,000
	OTHER							
B	AUTOMOBILE LIABILITY							
	X ANY AUTO			BA 00000031230Z	4/11/2021	4/11/2022	COMBINED SINGLE LIMIT (Ea accident)	1,000,000
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per person)	
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						BODILY INJURY (Per accident)	
							PROPERTY DAMAGE (Per accident)	
C	X UMBRELLA LIAB X OCCUR							
	EXCESS LIAB CLAIMS-MADE			6076401218	4/11/2021	4/11/2022	EACH OCCURRENCE	4,000,000
	DED X RETENTION $ 10,000						AGGREGATE	4,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N	N/A					E.L. EACH ACCIDENT	
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	
							E.L. DISEASE - POLICY LIMIT	
A	Property			S 2388561	6/11/2020	6/11/2021	see description	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
o All Risk Property - in the care custody and control of others

Contract 22003WDPS, Electrical Equipment Management and Maintenance Services

City of Wilmington is included as additional insured ATIMA as respects work performed by the named insured as required by written contract and to the extent provided by the actual policy language of the Commercial General Liability policy

CERTIFICATE HOLDER

City of Wilmington, Manager Division of Procurement City
County Building; 5th Floor
800 French St.
Wilmington, DE 19801

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

NJM Insurance Group

NEW JERSEY MANUFACTURERS INSURANCE COMPANY
301 Sullivan Way, West Trenton, NJ 08628
609-883-1300 / www.NJM.com

CERTIFICATE OF WORKERS COMPENSATION INSURANCE

INSURED Willier Electric Motor Repair Co Inc
1 Linden Ave
Gibbsboro NJ 08026

PROJECT Operations in the State of New Jersey

POLICY NO. W16360-0-21 **EFFECTIVE** 04/11/2021 **EXPIRING** 04/11/2022

This policy insures the obligations imposed upon the Insured by the provisions of the Workers Compensation Law of New Jersey. The limits of liability for Part Two - Employers Liability - under this policy are as follows: Bodily Injury by Accident $1,000,000 each accident, and for Bodily Injury by Disease $1,000,000 policy limit, $1,000,000 each employee.

NOTE: Waiver of subrogation and/or inclusion of interests not owned in the majority by the insured are not permitted under this policy by New Jersey Workers Compensation Statute.

With respect to the New Jersey Compensation law, coverage extends to New Jersey employees emanating from the State of New Jersey.

The issuance of this Certificate imposes no liability on the Company beyond that provided by the terms, conditions and exclusions of such policy as are described above by policy number, effective and expiration dates.

CERTIFICATE HOLDER
CITY OF WILMINGTON MGR; DIV OF
PROCUREMENT CITY
800 FRENCH ST COUNTY BLDG FL 5
WILMINGTON DE 19801

ISSUE DATE 03/08/2021

CITY OF WILMINGTON - BUSINESS LICENSE

ACCOUNT NO.	LICENSE NO.	CODE		FEE PAID
025916	3258	1004	CONTRACTOR/SUBCONTRACTOR	$120.00

BUSINESS

PENN ELECTRIC MOTORS
1 LINDEN AVE
GIBBSBORO, NJ 08026-1315

2021

Expires:12/31/2021

ISSUED BY

PENN ELECTRIC MOTORS
PENN ELECTRIC MOTORS
PO BOX 98
GIBBSBORO, NJ 08026-0098

Jeffrey J. Starkey

COMMISSIONER
DEPARTMENT OF LICENSES & INSPECTIONS

THIS LICENSE MUST BE DISPLAYED IN A PROMINENT PLACE

----- - - C O N T R A C T -----

THIS AGREEMENT made the 11th day of May in the year **Two Thousand Twenty-One** and between the City of Wilmington, a municipal corporation of the State of Delaware, acting through the agency of the Department of Finance, Division of Procurement and Records, party of the first part (hereinafter designated the Owner), and **Willier Electric Motor Repair Company, Inc** party of the second part (hereinafter designated the Contractors)

WITNESSETH, that the Contractor, in consideration of agreements herein made by the Owner, agrees with the Owner as follows:

Article 1. The Contractor shall and will furnish and deliver per specifications, on contract **22003WDPS "WATER DISTRIBUTION SYSTEM ELECTRICAL EQUIPMENT MANAGEMENT & MAINTENANCE SERVICES"** for the **Department of Public Works** in accordance with Advertisement for Bids by the Department of Finance, Division of Procurement and Records date **3/2/21 & 3/9/21** and specifications identified as Contract No. **22003WDPS** and by the signatures of the parties hereto, are, together with the said Advertisement for Bids, Instructions to Bidders, Forms of Proposal, and/or other documents pertinent thereto, hereby acknowledge and incorporated into these presents and are to be taken as a part of this Contract.

Article 2. It is understood and agreed by and between the parties hereto that the amount of this Contract is in the amount of **Seven Hundred Seventy-Eight Thousand, Nine Hundred Seventy Dollars and------ 00/100 ($778,970.00)** as per Proposal dated ~~**2/15/21**~~ to the Department of Finance, Division of Procurement and Records. 5-25-21 MP

Article 3. In the performance of this Contract, the parties agree that they shall not discriminate or harass, or permit discrimination or harassment, against any person because of age sex, marital status, race, religion, color, national origin, or sexual orientation.

Article 4. This Agreement shall bind the heirs, executors, administrators, successors and assigns to the respective parties hereto.

In witness whereof the party of the first part has, by recommendation of the **Commissioner of Public Works Department,** caused the hand of **Michael S. Purzycki,** Mayor, and the corporate seal of the City of Wilmington, attested by the City Clerk, to be hereunto affixed; and the party of the second part has caused the hand of its' President, (or his authorized representative) and its' corporate seal, attested by the Secretary or assistant Secretary, to be hereunto affixed.

Dated the day and year first above written in the City of Wilmington, County of New Castle, State of Delaware.

Signed, Sealed, and delivered in the presence of:

Witness

THE CITY OF WILMINGTON

By: _____
Michael S. Purzycki, Mayor

ATTEST:

City Clerk

Willier Electric Motor Repair Company, Inc

Witness

By: _____
President **(Seal)**

ATTEST:

Secretary