

Proposal Cover (Return with Bid – 1 page)

Project Name: <u>Central Pumping Station Upgrades</u>

Project Number: 22-11

Location: 102 N Lombard Avenue, Oak Park, Illinois

Submitted to the President and Board of Trustees

By:

Morrison Construction Company, Inc.

(Contractor's Name)

1834 Summer Street (Address)

Hammond, IN 46320 (City) <u>Contract Proposal</u> (Return with Bid – 1 page)



Proposal of <u>Morrison Construction Company, Inc.</u>

for <u>Project 22-11 Central Pumping Station Upgrades</u> as noted herein and the performance of all appurtenant work thereto.

- 1. Specifications of materials and labor required for the construction work shown on the Drawings are prepared by Baxter & Woodman, Inc., Consulting Engineers.
- 2. The Drawings which accompany these Specifications are titled "Village of Oak Park, Illinois, Central Pumping Station Upgrades, Project 22-11".
- 3. The undersigned agrees all work must be substantially complete within 270 calendar days from the notice to proceed with final completion a total of 330 calendar days from the notice to proceed, unless additional time is granted in accordance with the specifications.
- 4. Accompanying this proposal is a bid bond on the Village Bond form, complying with the specifications, made payable to the Village of Oak Park.
- 5. If this proposal is accepted and the undersigned fails to execute a contract and contract bond as required, it is hereby agreed that the Bid Bond shall be forfeited to the awarding authority.
- 6. The undersigned firm certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm. The undersigned firm further certifies that it is not barred from bidding on this contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid-rotating.
- 7. This Contract is subject to "An act regulating wages of laborers, mechanics, and other workers employed in any public works by the State, County, City or any other public body or any political subdivision or by anyone under contract for public works" (see Special Provision for details). The Prevailing Wage Act / Federal Requirements require maintaining and submitting Certified Payroll records monthly for all entities working on this project.
- 8. The undersigned submits herewith the Contract Schedule of Prices covering the work to be performed under this contract.



- 1. The undersigned hereby certifies that said vendor is not barred from bidding on the aforementioned contract as a result of a violation of either Section 33E-3 or 33E-4 of Article 33E of Chapter 38 of the Illinois Revised Statutes or Section 2-6-12 of the Oak Park Village Code relating to "Bidding Requirements".
- 2. The individual or entity making the foregoing proposal or bid certifies that he/she is not barred from contracting with the Village of Oak Park because of any delinquency in the payment of any tax administrated by the Department of Revenue unless the individual or entity is contesting, in accordance with procedures established by the appropriate revenue act, liability for the tax or the amount of the tax. The individual or entity making the proposal or bid understands that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and, in addition, voids the contract and allows the Municipality to recover all amounts paid to the individual or entity under the Contract in civil action.
- 3. The undersigned firm certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois and the Village of Oak Park, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm. The undersigned firm further certifies that it is not barred from bidding on this contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid-rotating.
- 4. The undersigned firm certifies that it is in compliance with House Bill 3337 which creates a Drug Free Workplace Act for Illinois with an effective date of January 1, 1992.

| By: Daniel J. Sharpe  | (Seal – if Corporation) |
|---|-------------------------|
| (Name & Title of Authorized Agent)  |                         |
| La that   |                         |
| (Signature)   |                         |
| Morrison Construction, Inc.   |                         |
| (Company Name)  |                         |
| 1834 Summer Street, Hammond, IN 46320   |                         |
| (Address)   |                         |
| 219-932-5036  |                         |
| (Telephone)   |                         |
| NOTARY PUBLIC<br>State of Indiana County of <u>LOLC</u>   |                         |
| Subscribed and sworn to before me this  |                         |
| l3th day of   | JulyA.D. 2022           |
| My commission expires 3/3/25 MULLINEL TEETER<br>Commission expires 3/3/26<br>(Signature & Seal)<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL<br>SEAL |                         |

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#### Complete the applicable paragraph below.

1. Corporation

The Vendor is a corporation, which operates under the legal name of

Morrison Construction Company, Inc. \_\_\_\_\_and is organized and existing under the laws of the State of

The full names of its Officers are:

Daniel J. Sharpe

(President)

Sunshine Landgrave

(Secretary)

Sunshine Landgrave

(Treasurer)

The corporation does have a corporate seal. (In the event that their proposal is executed by a person other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation that permits the person to execute the offer for the corporation.)

2. Partnership

Name, signature, and addresses of all partners:

#### Owner and/or Company Officer Information

Please provide the Name, Social Security Number (SSN), Driver's License Number (DLN), and State of Issuance (SOI) for Owner and /or Company Officers.

| Name               | Title            | SSN         | DLN            | SOI |
|--------------------|------------------|-------------|----------------|-----|
| Daniel J. Sharpe   | President        | 496-74-7864 | 1920-20-4079   | IN  |
| Mark Winter        | Vice President   | 348-70-7929 | W536-5466-7146 | IL  |
| Sunshine Landgrave | e Vice President | 309-84-3167 | 0880-15-5421   | IN  |
|                    |                  |             |                |     |

#### Fair Employment Practices Affidavit of Compliance



(Return with Bid – 1 page)

This affidavit must be executed and submitted with the signed proposal form. No proposals can be accepted by the Board of Trustees of the Village of Oak Park unless said affidavit is submitted concurrently with the proposal.

Daniel J. Sharpe\_\_\_\_\_\_, being first duly sworn, deposes and says that he/she is the (Name of person making the affidavit)

President

(Title or Office)

of <u>Morrison Construction Company, Innc</u> (Name of Company)

and that he/she has the authority to make the following affidavit; that he/she has the knowledge of the Village of Oak Park Ordinance relating to Fair Employment Practices and knows and understands the contents thereof; that he/she certifies hereby that

Morrison Construction Company, Inc. is an "Equal Opportunity Employer" as defined by (Name of Company)

Section 2000 (E) of Chapter 21, Title 42 of the United States Code Annotated and Federal Executive Orders #11246 and #11375 which are incorporated berein by reference.

(Signature of person making the affidavit)

NOTARY PUBLIC State of Indiana County of Lake

Subscribed and sworn to before me this

| 1340                        | day of                 | July               | A.D. 20 22 |
|-----------------------------|------------------------|--------------------|------------|
| My commission expires 3/3/2 | A WHINKINGSION EX      |                    |            |
| Signature & Seal)           | SEAL                   |                    |            |
|                             | SLAL<br>1. Stro ATERCO | P. CWTY<br>MOILANE |            |
|                             | ARY PUBLIC - ST        | ALE OF WALL        |            |



<u>E.E.O. Report</u> (Return with Bid – 2 pages) Please fill out the form completely. Failure to respond truthfully to any questions on the form, or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of the proposal. An incomplete form will disqualify the proposal. For assistance in completing this form, contact Elaine Avgoustakis, Civil Engineer at (708) 358-5726.

Vendor Name: Morrison Construction Company, Inc.

Check here if the firm is:

MBE

WBE

DBE

X Non-M/WBE

If your firm is a M/WBE, please complete the attached M/WBE participation affidavit and include copies of all certification letters.

What is the size of the firm's current stable work force?

406 Number of full-time employees

Number of part-time employees

Similar information will be requested of all subcontractors working on their contract. Forms will be furnished to the lowest responsible bidder or contractor with the notice of contract award, and these forms must be completed and submitted to the Village before the execution of the contract by the Village. -

Vendor Name: Morrison Construction Company, Inc.

Total Number of Employees: 406

|                                     |                    |                |                  |       | Ň        | Males                                     |                                |       | Fen      | Females                                   |                                |                     |
|-------------------------------------|--------------------|----------------|------------------|-------|----------|---|--------------------------------|-------|----------|---|--------------------------------|---------------------|
| Job Categories                      | Total<br>Employees | Total<br>Males | Total<br>Females | Black | Hispanic | American<br>Indian &<br>Alaskan<br>Native | Asian &<br>Pacific<br>Islander | Black | Hispanic | American<br>Indian &<br>Alaskan<br>Native | Asian &<br>Pacific<br>Islander | Total<br>Minorities |
| Officials & Managers                | 20                 | 18             | 2                |       | -        |   |                                |       |          |   |                                | -                   |
| Professionals                       |                    |                |                  |       |          |   |                                |       |          |   |                                |                     |
| Technicians                         |                    |                |                  |       |          |   |                                |       |          |   |                                |                     |
| Sales Workers                       | -                  | -              |                  |       |          |   |                                |       |          |   |                                |                     |
| Office & Clerical                   | 24                 | 8              | 16               |       |          |   |                                | 2     | -        |   |                                | 3                   |
| Semi-Skilled Union Craft            | 351                | 341            | 10               | 10    | 26       |   |                                | 4     |          |   |                                | 40                  |
| Laborers                            | 10                 | 10             |                  |       | 1        |   |                                |       |          |   |                                | 1                   |
| Service Workers                     |                    |                |                  |       |          |   |                                |       |          |   |                                |                     |
| Total                               | 406                | 378            | 28               | 10    | 28       |   |                                | 9     | -        |   |                                | 45                  |
| Management Trainees                 |                    |                |                  |       |          |   |                                |       |          |   |                                | :                   |
| Apprentices                         | 57                 | 52             | 5                | 2     | 3        |   |                                | 2     | 1        |   |                                | 7                   |
| Apprentices included in total above | n total above      |                |                  |       |          |   |                                | :     |          |   | -                              |                     |

This completed and notarized report must accompany your bid. It should be attached to your Affidavit of Compliance. Failure to include it with your bid will disqualify vou from consideration. An EEO-1 Report may be submitted in lieu of this report.

| NOTARY PUBLIC<br>State of Indiana County of Low e   |
|---|
| Daniel J. Sharpe K. Daniel J. Sharpe K. Deing first duly sworn, deposes and says that he/she is the President (Title or Office)   |
| of Morrison Construction Company, Inc. and that the above E.E.O. Report information is true and accurate and is submitted with the intent that (Name of Company)  |
| it be relied upon. Subscribed and sworn to before me this 13 <sup>cm</sup> day of 시시나 A.D. 20   |
| My commission expires 3333 with the TEETER Milester Ferring<br>O A Control of the state of the stat |
| 2 S S S S S S S S S S S S S S S S S S S   |



Daniel J. Sharpe

Schedule D M/WBE Participation Affidavit (Return with Bid – 3 pages)

22-11

(Contract Number)

(Contact Person)

s 659,000.00

(Contract Value)

Daniel J. Sharpe, President

(City/State/Zip Code)

(Name & Title)

1834 Summer Street

(Address)

Hammond, IN 46320

(219) 932-5036 / (219) 933-7302

(Phone Number/Fax Number)

Description of commodities and/or services to be provided by the Bidder/Proposer on this Contract: Central pumping station upgrades including removal/replacement of (2) "pit" pumps, check valves, concrete bases, replacement of (2) "Chicago" pumps, removal/replacement of (4) VFD's and associated work.

Any questions regarding compliance with these requirements should be directed to:

Finance Department, Village of Oak Park, 123 Madison Street, Oak Park, Illinois 60302; 708-358-5460

I, Daniel J. Sharpe \_\_\_\_\_, hereby agree to comply with and be bound by the provisions (Name)

to submit, as part of this bid/proposal, a detailed M/WBE Participation Plan with and at the time and place of the submissions of this bid/proposal; that the M/WBE Participation Plan is an element of bidder/proposer responsiveness and responsibility; and are incorporated as part of the contract; that heirs, executors, and administrators or assigns and any other persons or entities claiming by or through the bidder/proposer including but not limited to insurance companies, bonding companies, or survives are bound by this agreement; and do declare and affirm that, to the best of my knowledge, information and belief, the facts and representations set forth in this M/WBE Participation Affidavit are true and correct, and that no material facts have been omitted.

(Signature)

Morrison Construction Company, Inc.

(Company)

(219) 932-5036

(Phone Number)

NOTARY PUBLIC State of Indiana County of \_\_\_\_\_\_

Subscribed and sworn to before me this

| 13th                           | day of         | July | A.D. 20 22 |
|--------------------------------|----------------|------|------------|
| My commission expires $3 3 a $ | HUNNING TEETER |      |            |
| (Signature & Seal)             | SEAL           |      | 1          |
|                                | TO TER CO S    |      |            |

M/WBE firms may participate in the performance of this contract, either DIRECTLY or INDIRECTLY, as Prime Bidders/Proposers, Joint Venture Partners, Subcontractors, and/or Suppliers.

| Name of M/WBE Firm:                       | Race/Gender:          |
|---|-----------------------|
|   |                       |
| City/State/Zip:                           |                       |
| Phone Number/ Fax Number:                 |                       |
| Contact Person:                           |                       |
| Dollar Amount: \$                         | Percentage:           |
| Schedule C Attached? Yes No               |                       |
| Description of Commodity and/or Services: |                       |
|   | Dans (Canadam         |
| Name of M/WBE Firm:                       |                       |
| Address:                                  |                       |
| City/State/Zip:                           |                       |
|   |                       |
| Contact Person:                           | Dercentage            |
| Dollar Amount: \$YesNo                    | Percentage:           |
| Description of Commodity and/or Sorvices: |                       |
| Description of commonly and/or services.  |                       |
| Name of M/WRE Firm:                       | Race/Gender:          |
| Name of M/WBE Firm:                       |                       |
| City/State/7in:                           |                       |
| Phone Number/ Fax Number:                 |                       |
| Contact Person:                           |                       |
| Dollar Amount: \$                         | Percentage:           |
| Schedule C Attached? Yes No               |                       |
|   |                       |
|   |                       |
| Name of M/WBE Firm:                       | Race/Gender:          |
| Address:                                  |                       |
| City/State/Zip:                           |                       |
| Phone Number/ Fax Number:                 |                       |
| Contact Person:                           |                       |
| Dollar Amount: \$                         | Percentage:           |
| Schedule C Attached? Yes No               |                       |
| Description of Commodity and/or Services: |                       |
| Name of M/WBE Firm:                       | Race/Gender:          |
|   |                       |
| Address:                                  |                       |
| Phone Number/ Fax Number:                 |                       |
| Contact Person:                           |                       |
| Dollar Amount: \$                         | Percentage:           |
| Schedule C Attached? Yes No               | i ercentage           |
| Description of Commodity and/or Services: |                       |
| beschption of commonly and/or befores     |                       |
| Total MBE Dollar Amount: \$               | Total MBE Percentage: |
| Total WBE Dollar Amount: \$               | Total WBE Percentage: |
| •   |                       |

The undersigned affirms that the foregoing statements are true and correct and include all material information necessary to identify and explain the terms and operations of our joint venture and the intended participation of each partner in the undertaking. Further, the undersigned covenants and agrees to provide to the Village of Oak Park current, complete, and accurate information regarding actual joint venture work and the payment therefore, and any proposed changes in any provision of the joint venture agreement, and to permit the audit and examination of the books, records, and files of the joint venture, or those of each partner relevant to the joint venture, by authorized representatives of the Village of Oak Park.

Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under federal and state laws concerning false statements.

If after filing this Schedule D and before the completion of the joint venture's work on the project, there is any change in the information submitted, the joint venture must submit a revised version of this document to the Village of Oak Park either directly, or through the prime contractor if the joint venture is a subcontractor.

| M/WBE PARTNER FIRM  | NON-M/WBE PARTNER FIRM   |
|---|--|
|   | Morrison Construction Company, Inc.  |
| (Company)   | (Company)  |
| (Signature of Affiant)  | (Signature of Affiant)   |
|   | Daniel J Sharpe, President   |
| (Name & Title of Affiant)   | (Name & Title of Affiant)  |
|   | July 14, 2022  |
| (Date)  | (Date)   |
| NOTARY PUBLIC<br>State of Indiana County of   | -  |
| On this day of  | A.D. 20 23   |
| the above signed officers, <u>Ocurrel Sha</u><br>(Names of Affiants)  | npe  |
| personally appeared and, known to me are the persons executed the same in the capacity therein stated and for | described in the foregoing Affidavit, acknowledged that they r the purpose with the purpose of t |

In witness whereof, I hereunto set my hand and seal.

My commission expires

(Signature & Seal)



3

#### ADDENDUM NO. 1

## JULY 5, 2022 CENTRAL PUMPING STATION UPGRADES PROJECT NO. 22-11 VILLAGE OF OAK PARK PUBLIC WORKS CENTER 201 SOUTH BLVD COOK COUNTY, ILLINOIS PROPOSAL DUE DATE: 10:00 AM, JULY 14, 2022

This addendum forms a part of the Contract Documents and amends the original documents and the Plans and Special Provisions. Where any part of the contract documents is amended, the unaltered provisions are to remain in effect. **This is the only notice you receive, with no follow up by mail.** 

- 1. The closing date for project Q&A available on QuestCDN has changed from 07/13/2022 to 07/07/2022.
- 2. Attached is the meeting agenda from the Pre-Bid Conference on 06/29/2022. The agenda includes the contractor questions discussed during the meeting.

I acknowledge the receipt of this addendum by signing the acknowledgement. This addendum needs to be signed and included with bid. Failure to properly acknowledge this addendum as noted above may result in disqualification of the associated bid.

End of Addendum No. 1 I acknowledge the receipt of Addendum No. 1 for the referenced project: Signed: Name Daniel J. Sharpe

Name of Company Morrison Construction Company, Inc.

Elaine Avgoustakis Civil Engineer Village of Oak Park 201 South Blvd Oak Park, IL 60302 708.358.5726 eavgoustakis@oak-park.us

#### VILLAGE OF OAK PARK, ILLINOIS CENTRAL AVENUE PUMPING STATION UPGRADES PROJECT NO. 22-11 PRE-BID CONFERENCE JUNE 29, 2022 [102 N. LOMBARD AVE.] AGENDA

- 1. OPENING INTRODUCTIONS
  - a. INTRODUCE VILLAGE STAFF
  - b. INTRODUCE ENGINEERS
  - c. INTRODUCE CONTRACTORS [SELF INTRODUCTION]

#### 2. DESCRIPTION OF PROJECT

- a. REMOVAL AND REPLACEMENT OF THE TWO "PIT PUMPS" AND CHECK VALVES.
- b. REBUILDING OF THE TWO "CHICAGO PUMPS" AND CHECK VALVES
- c. REMOVAL AND REPLACEMENT OF THE FOUR VFDS.

#### 3. ITEMS OF CONCERN

- a. CONSTRUCTION MUST BE SEQUENCED SUCH THAT AT LEAST ONE PUMP FROM EACH GROUP MUST REMAIN IN SERVICE.
- b. NO EQUIPMENT MAY BE REMOVED FROM SERVICE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE OWNER AND ENGINEER.

#### 4. CONTRACTOR QUESTIONS

a. Q: Will the Village provide a crane/hoist for lifting and lowering pumps and motors?

**A:** The Village possesses a one (1) ton mobile gantry crane. The contractor may be permitted to use the crane as needed, so long as contractor agrees that crane will operated properly by qualified and competent personnel.

**b. Q**: Is replacement of the inlet and outlet pressure gauges for pumps 1 & 2 included in this scope of work?

A: Yes, replacement gauges shall be provided by the Village.

c. Q: Should the pumps be on the same alignment as they currently are?

**A:** Basically. The drawings depict the how the new pump will be oriented due to its different dimensions.

d. Q: Can both pumps be taken out at once?

**A:** Downstairs [Pit pump] only one can be out of service even if both upstairs [Chicago pumps] are operational.

#### e. Q: What is the sequence of the construction/project?

**A:** Means and methods are left up to the contractor. Basic sequence is described in the specifications and on the drawings.

#### f. Q: What about the [Chicago Pump] motors?

**A:** The specifications call for the addition of grounding rings to the Chicago pump motors.

## **g. Q:** Do the specs call for additional work (i.e. coating and sealing, painting floor, pipe, brick)?

A: Touch up any damaged areas in accordance with the specifications.

#### h. Q: For the VFDs, who to coordinate with for electrical?

A: Specifications call for coordination with the Village IT department.

#### i. Q: Where will the contractors/their employees be able to park?

A: Parking will be available around the building.

#### j. Q: What space in the building is available for their use?

A: Most of the building, coordinate with the Owner.

#### k. Q: Who has done the electric in the past?

A: Small local contractor, too small for project.

#### I. Q: Will there be any special permits necessary?

A: Permit requirements are covered in the specifications.

#### m. Q: Does the Village want to keep any of the old pump parts?

A: No. Dispose in accordance with the specifications.

n.

#### 5. ADJURN

#### ADDENDUM NO. 2

## JULY 8, 2022 CENTRAL PUMPING STATION UPGRADES PROJECT NO. 22-11 VILLAGE OF OAK PARK PUBLIC WORKS CENTER 201 SOUTH BLVD COOK COUNTY, ILLINOIS PROPOSAL DUE DATE: 10:00 AM, JULY 14, 2022

This addendum forms a part of the Contract Documents and amends the original documents and the Plans and Special Provisions. Where any part of the contract documents is amended, the unaltered provisions are to remain in effect. **This is the only notice you receive, with no follow up by mail.** 

#### **Update to the Contract Specifications**

#### 1. Addition of Special Provision "ACTIVE HARMONIC FILTERS"

I acknowledge the receipt of this addendum by signing the acknowledgement. This addendum needs to be signed and included with bid. Failure to properly acknowledge this addendum as noted above may result in disqualification of the associated bid.

End of Addendum No. 2

| I acknowledge the receipt of Addendum No. 2 for the referenced proj | ject: |
|---|-------|
| Signed:   |       |
| Name ha hand  |       |
|   |       |
| Daniel J. Sharpe  |       |

Name of Company Morrison Construction Company, Inc.

Elaine Avgoustakis Civil Engineer Village of Oak Park 201 South Blvd Oak Park, IL 60302 708.358.5726 eavgoustakis@oak-park.us

#### SECTION 26 35 26.13

#### ACTIVE HARMONIC FILTERS

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Provide active harmonic filters as shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. This specification defines the requirements for harmonic filter systems in order to meet the current edition of IEEE-519 electrical system requirements for harmonic current limits. The active harmonic filter shall maintain power factor between 0.95 and 0.999 lagging when operated within limits.
- C. Related work:
  - 1. Documents affecting work under this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Division 01 General Requirements of these Specifications.
- D. References (Reserved).
- 1.2 SUBMITTALS
  - A. Shop Drawing Submittals:
    - 1. Enclosure dimensions, nameplate data, electrical ratings and characteristics, wiring diagrams and manufacturer's detailed specifications.
  - B. Operation and Maintenance Manuals Submit operation and maintenance manuals in compliance with pertinent provisions of Section 01 78 26, including the following:
    - 1. Harmonic distortion analysis which includes the following:
      - a. Calculations of percent voltage distortion with respect to the fundamental voltage on the line side bus.
      - b. Comparison of calculations with IEEE-519 standards for acceptable harmonic distortions.
    - 2. Documentation showing final configuration of each motor drive.
  - C. Certificates and Guarantees:
    - 1. Provide factory operational test, heat test, and reports for motor loading at various speeds simulating field loading.
  - D. Spare Parts (Reserved).
  - E. Comply with pertinent provisions of Section 01 33 01.

ACTIVE HARMONIC FILTERS 26 35 26.13-1 (212027.40)

#### 1.3 QUALITY ASSURANCE

- A. Comply with the following requirements:
  - 1. NFPA 70 (latest edition) National Electrical Code (NEC).
  - 2. Local codes and ordinances.
  - 3. ANSI IEEE Std 519-2014.
  - 4. UL 508.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with pertinent provisions of Section 01 66 11.
- 1.5 SITE CONDITIONS (Reserved).
- 1.6 MAINTENANCE (Reserved).

#### PART 2 - PRODUCTS

#### 2.1 SYSTEM DESCRIPTION

- A. Voltage: 480/600 Volts, 60 Hz, 3 phase.
  - 1. Verify if the incoming neutral is connected to the PDP. If the neutral is not connected to the PDP, provide provisions for 3 wire plus ground. If the neutral is connected to the PDP, provide provisions for 4 wire plus ground.
- B. Current Rating: Provide the rated current as indicated on the Drawings.
- C. Current Transformers:
  - 1. Provide two current transformers mounted on phases A & C.
  - 2. Provide current ratings of the current transformers according to full load current of the circuit on which installed. Primary rating of 600A with a secondary rating of 5A is acceptable.
  - 3. Provide current transformers rated for 400 hertz.

#### 2.2 OPERATION

A. Provide active harmonic filter to electronically supply the non-fundamental current demanded by the non-linear load that results in a near sinusoidal current being drawn from the supply.

#### 2.3 PERFORMANCE REQUIREMENTS

- A. Response Time:
  - 1. Active harmonic filter response time in a steady state condition: less than one (1) line cycle.
  - 2. Active harmonic filter response time in the event of a load change or transient condition: within three (3) line cycles.

ACTIVE HARMONIC FILTERS 26 35 26.13-2 (212027.40)

- B. Input Power:
  - 1. Voltage: 480 Volt, 3 phase, 3 wire plus ground.
  - 2. Voltage Tolerance: +/- 10% of nominal.
  - 3. Frequency: automatically adapted to 60Hz, +/- 3%.
  - 4. Input Circuit Breaker: 100k AIC Rated.
- C. Output Performance:
  - 1. Performance of the active harmonic filter independent of the impedance of the power source. All performance levels attained whether on the AC lines, backup generator, or output of UPS.
  - 2. Harmonic Correction:
    - a. Limit the 2<sup>nd</sup> through 50<sup>th</sup> order harmonic current to <5% TDD at each installed location indicated herein. Comply with respective levels established in ANSI/IEEE Std 519-2014, Table 2 for levels for individual harmonic orders.
    - b. Limit the THD (V) added to the electrical system immediately upstream of the active line conditioner location(s) to less than or equal to 5%. Active harmonic filters that correct for utility supplied voltage distortion levels are unacceptable.
  - 3. Reactive Current Compensation to improve power factor to be to between 0.95 and 0.999 lagging.

#### 2.4 ENVIRONMENTAL CONDITIONS

- A. Provide active harmonic filters able to withstand the following environmental conditions without damage or degradation of operating characteristics or life.
  - 1. Operating Ambient Temperature: 00C to 400C.
  - 2. Operating Ambient Temperature for selected open chassis units: -200C to 500C.
  - 3. Storage Temperature: -400C to 650C.
  - 4. Relative Humidity: 0 to 95%, non-condensing.
  - 5. Altitude: Operating to 1000 meters (3300 ft).

#### 2.5 ENCLOSURE

- A. Provide each filter in a UL Type 1 rated enclosure with means to prevent the door from being opened when the unit is energized. This can be achieved by either of the following:
  - 1. A door-interlocked circuit breaker that provides power interruption when the door is opened. The circuit breaker shall be lockable in the power-off position. Disconnect units from the power source by a disconnect device or circuit breaker contained in the power distribution center as defined by local and national codes for branch circuit protection.
  - 2. A mechanism that locks the door when the unit is energized. The unit may be fed using an external disconnect or breaker.

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- B. Include lifting provisions by forklift truck and lifting lugs for freestanding units. Equip wall mount units weighing more than 80 pounds with a means of lifting, such as lifting lugs.
- C. Provide Door Mounted Digital HMI Operator Interface.
- D. Provide units with a grounding lug.
- E. Provide manufacturer's paint of standard type and color.
- F. Provide enclosed units with a door-interlocked disconnect for power interruption when the door is opened.

#### 2.6 OPERATOR CONTROLS AND INTERFACE

- A. Provide active harmonic filter requiring minimal field programming.
- B. Include a color touch screen display with the following features:
  - 1. A minimum display size of 5.6 inches, 65k colors, and LED backlight.
  - 2. Easily navigable screens, including Home, Status, Fault and Setup screens.
  - 3. Display voltage and current waveform data along with RMS metering data.
  - A gauge based indicator of active filter current usage, from 0 to 100% of capacity. Dual state indications of nominal operation and "at capacity" operation.
  - 5. An alarm history buffer saved in non-volatile. Buffer information persists between power outages, with a minimum of 128 event entries.
  - 6. Ability to set the end user Line/Load CT ratio of the active harmonic filter system.
  - 7. Operator Interface showing THD, Power Factor, RMS Current, RMS Voltage, and Fault History.
- Include the ability to operate in three (3) modes: i) harmonic correction only mode,
  ii) power factor correction only mode, or iii) combination harmonic and power factor mode.
  - 1. All three control modes configurable from the local operator color touch screen display.
- D. Provide filter with a configurable relay based run/stop command input in addition to the manual and auto run/stop commands. Provide the active filter with a configurable relay based fault output. Each contact shall be rated for 0.4 Amperes at 125 volts.
- E. Provide filter with a configurable network based run/stop command input in addition to the manual and auto run/stop commands.
- F. Load and save operational parameters in non-volatile persistent memory and the ability to revert to factory default parameter settings.

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- G. Provide filter with an integrated industry standard serial TIA/EIA-485 /RS-485 fieldbus slave network connection such as Modbus RTU for remote monitoring and operation of the active filter.
- H. Include the ability to communicate over a standard industrial Ethernet communications network such as Ethernet/IP.
- I. Automatically begin to correct harmonic currents after power up without the need for operator intervention.
- J. Display trend history data for four variables selectable by the user.

#### 2.7 DESIGN

- A. Active harmonic filters are defined as power electronic devices which consist of power semiconductors and a DC bus that acts to inject current into the AC line that will cancel undesirable harmonic currents drawn by the load. A DC bus stores power for power semiconductor switching. A digital microcontroller controls the operation of the power converter.
- B. Provide active harmonic filter with the following features:
  - 1. Fully digital synchronous frame controls for selected harmonics to enhance drive load compatibility.
  - 2. Fully digital, broadband current regulator with progressive gains to eliminate system resonance tuning issues and simplify startup and commissioning.
  - 3. Single processor control of all power electronic devices per a single active filter to reduce fault response latency and harmonic correction loop times.
- C. Design each unit with over-current and current limiting self-protection. Continue operation indefinitely at manufacturer defined safe operating levels without trip off or destruction of the active harmonic filter.
- D. Provide large units (capacity>150A) with built in redundancy so at least one half of the corrective current capacity is available after a normal single point fault.
- E. Provide inductive elements in the power circuit of active harmonic filter as coreless, in order to maintain constant inductance and avoid saturation at high current levels.
- F. Employ two distinct levels of faults: Critical and Non-critical levels.
  - 1. Non-critical level faults: provide automatic restart and a return to normal operation upon automatic fault clearance.
  - 2. Critical level faults: stop the function of the unit and await operator action to restart.
  - 3. Automatically restart faults such as AC line power loss upon power restoration. Restart the active line conditioner without user action upon removal of these fault conditions.

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- 4. All other faults are considered critical faults and stop the active harmonic filter. Disable the run relay and enable the fault relay. Require the user to initiate a power reset (cycle power off and on) to restart the active harmonic filter.
- G. Logic: Monitor the load current by utilizing two (2) current transformers (CTs) mounted on phases A and C to direct the function of the power electronic converter.
- H. Multiple active harmonic filters may be installed in parallel to inject current. The units will function independently. If one unit is stopped or faulted, the remaining units will continue to operate normally.
- I. Approved manufacturers:
  - 1. TCI.
  - 2. Or equal.

#### PART 3 - EXECUTION

- 3.1 INSTALLATION
  - A. Install active harmonic filters in electrical enclosures or motor control centers as shown on the Drawings and in accordance with manufacturer's recommendations.
  - B. Coordinate parameter settings with supplier of process control panels.
  - C. Current Transformers:
    - 1. Current transformers are an integral part of the active harmonic filter. When current transformers are installed external to the active harmonic filter equipment, the Contractor shall be responsible for the installation of manufacturer provided current transformers.
    - 2. Place the current transformers as close as possible to the non-linear load to be conditioned, within manufacturer guidelines.

#### 3.2 FIELD QUALITY CONTROL

- A. Conduct field tests prior to energization as follows:
  - 1. Megger check wire insulation levels (do not megger check solid state equipment).
  - 2. Record and provide results of tests to Engineer.

#### 3.3 START-UP AND TESTING

- A. Provide calibration and operational testing.
- B. Set operating parameters as required.

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(08/16)

C. Perform Harmonic Testing at the Point of Common Coupling (PCC). PCC is located at the nearest bus which includes the Harmonic Filter(s) and VFD(s). Provide results of the THD Current and THD Voltage measured at each phase.

END OF SECTION

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#### 00 43 22.13

#### SUPPLEMENTAL UNIT PRICES

Bidder submits the following Schedule of Supplemental Unit Prices for additions to or deductions from the scheduled amount of Work as given in the Bid Form, and agrees that Owner reserves the unrestricted privilege to accept or reject any or all unit prices:

| 1. | New impeller for Chicago Pump.   | \$ <u>30,300.00</u> |
|----|--|---------------------|
| 2. | Stainless steel impeller shaft for Chicago Pump.   | \$8,500.00          |
| 3. | Concrete in place (including form work).<br>a. Pump equipment base, per cu. yd (beyond shown on drawings). | \$2,800.00          |
| 4. | Reinforcing steel in place, per lb.  | \$1.80              |

Bidder agrees the Supplemental Unit Prices shown above include all overhead, profit, and those costs included in the Cost of the Work in accordance with Article 11 of the General Conditions.

PROVIDE SIGNATURE IDENTICAL TO THAT SHOWN ON THE BID FORM

BIDDER: By: Daniel J. Sharpe

END OF SUPPLEMENTAL UNIT PRICES

SUPPLEMENTAL UNIT PRICES 00 43 22.13-1 (212027.40)



WE Morrison Construction Company, Inc.

as PRINCIPAL,

and <u>Western Surety Company</u> as SURETY, are held and firmly bound unto the Village of Oak Park, IL (hereafter referred to as "VOP") in the penal sum of 10% of the total bid price. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly to pay to the VOP this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the VOP acting through its awarding authority for the construction of the work designated as the above section.

THERFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the VOP for the above-designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the Engineers Joint Contract Documents Committee (EJCDC) Standards and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the VOP determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the VOP acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this

| 14th                                     |                    | day of              | July                             | A.D. 20 22                             |
|--|--------------------|---------------------|----------------------------------|--|
| PRINCIPAL<br>Morrison Construction Compa | iny Inc.           | -1 I <del>-</del> + |                                  | the best more sense of                 |
| (Company Name)                           | h c ?              | ) . / /             | (Company Name)                   |  |
| By: ha                                   | hay t              | resident            | Ву:                              |  |
| (Signature & Title)                      | /                  |                     | (Signature & Tit                 | :le)                                   |
| (If PRINCIPAL is a joint venture of two  | o or more contract | ors, the company    | names, and authorized signature  | s of each contractor/must be affixed.) |
| SURETY                                   |                    |                     | And and                          |  |
| Western Surety Company                   |                    |                     | Thug +                           | 28                                     |
| (Name of Surety)                         |                    |                     | (Signature of Attorney-in        | n-Fact) Kimberly Bragg                 |
| NOTARY PUBLIC                            |                    |                     |                                  |  |
| State of Illinois, County ofCoo          | ik                 |                     |                                  |  |
| I, Susan K. Landreth                     |                    | a N                 | lotary Public in and for said co | ounty, do hereby certify               |
| that                                     |                    | and Kim             | berly Bragg                      | 0 x •                                  |
| /Niener - Cturdt tal als st              |                    | CODINICIDAL         | LOUDETA)                         |  |

(Names of individuals signing on behalf of PRINCIPAL and SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notary seal this

| 14th                                 | _day of July                       | A.D. 20 22 |
|--------------------------------------|------------------------------------|------------|
| My commission expires 05/18/2023     |                                    |            |
| Smarktandrets                        | S "OFFICIAL SEAL"                  |            |
| (Signature & Seal) Susan K. Landreth | SUSAN K. LANDRETH                  |            |
| Notice:                              | NOTARY POBLIC, EXPIRES 5/18/2023 & |            |

1. Improper execution of this form (i.e., missing signatures of seals, or incomplete certification) will result in bid being declared irregular.

2. If bid bond is used in lieu of proposal guaranty check, it must be on this form and must be submitted with bid.

# Western Surety Company

#### POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

#### Kimberly Bragg, Individually

of, Chicago, IL , its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

#### - In Unlimited Amounts -

Surety Bond No.: Bid Bond Principal: Morrison Construction Company, Inc. Obligee: Village of Oak Park, IL

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 16th day of June, 2021.

WESTERN SURETY COMPANY



Paul T. Bruffat. Vice President

State of South Dakota County of Minnehaha

On this 16th day of June, 2021, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026

M. BENT

M Bent

#### M. Bent, Notary Public

#### CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 14th day of July, 2022.



WESTERN SURETY COMPANY

Reland L. Nelson, Assistant Secretary

Form F4280-7-2012

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

#### **Authorizing By-Law**

#### ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.